



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LIME EMULSION

Print Date 11.07.2007

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name : LIME EMULSION

Use of the Substance/Preparation : Flavor for consumer product

Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH

Telephone : +61397889200

Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Not classified as dangerous goods according to the ADG Code.

Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

Additional Info : Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

CAS-No.	Components	Classification	Concentration
		Xn, R65	0 - 10 %

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

Version : 1
Revision Date : 11.07.2007

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : WHITE SUGAR NI FLAVOUR
COMMERCIAL CODE : 510282A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/004

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL
1% - 5%	5-ETHYL-3-HYDROXY-2-METHYL-4,5-DIHYDROFURAN-4-ONE& 2-ETHYL-3-HYDROXY-5-METHYL-4,5-DIHYDROFURAN-4-ONE Xn R 22-36/38 27538-09-6 248-513-0

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DEGREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON REQUEST

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* : modified data
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4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

TO OUR KNOWLEDGE NONE OF THE INGREDIENTS LISTED IN SECTION 2 HAVE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : NOT AVAILABLE

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
APPEARANCE : LIQUID

FLASHPOINT (°C) : 65

SOLUBILITY IN WATER : NOT DETERMINED

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DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : NOT DETERMINED
 BULKDENSITY SOLID (KG/L) : NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
		no	GROUP RISK(S)
RID/ADR	: NOT RESTRICTED		
IMDG	: NOT RESTRICTED		
ICAO/IATA	: NOT RESTRICTED		

15 - REGULATORY INFORMATION

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
 TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
 SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
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16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 22 HARMFUL IF SWALLOWED
R 36/38 IRRITATING TO EYES AND SKIN

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.



Printed on : 23/07/2005

MATERIAL SAFETY DATA SHEET

According to directive 91/155/CEE

Review date : 28/03/2002

PEACH FLAVOUR**1 - IDENTITY OF COMPAGNY AND IDENTIFICATION OF PRODUCT OR PREPARATION***Identification of substance or preparation*Product number : **LM3555**Designation **PEACH FLAVOUR***Identity of supplier*

METAROM FRANCE
 Av de l'Etoile du Sud - Pôle Jules Verne - BP 32 - 80440 BOVES
 Tél. : 03.22.38.86.00
 Fax : 03.22.38.85.90

Emergency calls
 ORFILA Tél. 01.45.42.59.59
 METAROM Tél. 03.22.38.86.00

2 - COMPOSITION AND INFORMATION RELATIVE TO COMPONENTS

COMPONANT	Concentration in % of masse	EINECS	Symbol	RISK 1	RISK 2	RISK 3	RISK 4
Ethyl alcohol	24	200-578-6	F	R11			

3 - HAZARD IDENTIFICATION

Flammable

Overexposure to the vapours given off (particularly when heated up) may result in dizziness and headaches

4 - FIRST AND MEASURES*Urgent need for medical attention:* No

Eyes: Wash eyes in running water holding the eyelids apart. If symptoms persist, see an ophthalmologist
 Wash using soap and water and change into new clothes if required. Should symptoms persist, see a doctor
Inhalation: Ensure that the person who has been exposed to the product breathes in fresh air. Should symptoms persist, see a doctor
Ingestion: Rinse mouth out with water and drink water. Should symptoms appear, see a doctor

*Specific measures***5 - FIRE FIGHTING MEASURES***Appropriate extinguishing means:* Use fire extinguishers containing pulverised water + additive / powder (or CO2, foam)*Inappropriate Extinguishing means to avoid:* Direct water jet*Risques particuliers* : Avoid inhaling the vapours given off; these vapours may form an explosive mixture when combined with air

METAROM FRANCE

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 Tél. : +33 (0)3 22 38 86 00 - Fax: +33 (0)3 22 38 85 90 - E-Mail: accueil@metarom.fr - Internet: www.metarom.fr
 Société anonyme au capital de 4 947 990€ - RCS B 315 384 552 - NAF 246E - TVA: FR 51 315 384 552





Printed on : 23/07/2005

Review date : 28/03/2002

MATERIAL SAFETY DATA SHEET

According to directive 91/155/CEE

Product number: **LM3555**
Designation **PEACH FLAVOUR**

6 - MEASURES IN CASE OF ACCIDENTAL RELEASE

Keep away from any flammable source

Blot out and contain any spillage using sand or inert powder (vermiculite)

Individual precaution measures: Do not smoke. Avoid contact with the skin and the eyes**7 - HANDLING AND STORAGE***Handling:* Handle in an airy place and avoid the build-up of electrostatic charges / proximity to flammable sources*Storage conditions:* Store in sealed receptacles away from any sources of heat in a well ventilated place*Storage temperature:* Keep between +12°C and 25°C**8 - EXPOSURE CONTROL AND PERSONNAL SAFETY***Limit value of exposition:* VLE of ethanol = 9500 mg/m³ VME of ethanol = 1900 mg/m³

(French norms : INRS, National Institut of Science Research)

Respiratory precautions: Wear a face mask should any vapours be given off*Protection of hands:* Take all protective measures commonly used when dealing with aromatic or chemical products (use gloves if required)*Eye protection:* Take all protective measures commonly used when dealing with aromatic or chemical products (use goggles if required)*Skin protection:* The wearing of fire proof clothing is recommended*Hygiene work routines:* Any cloths, sponges, etc. used to mop up the product should be disposed of. Refrain from smoking**9 PHYSICAL AND CHEMICAL PROPERTIES**Form/colour: **CLEAR AMBER LIQUID**

Odour: peach

Density: 1,01 +/- 0.05 (for powder +/- 0.15)

Ph : +/- 0.05

Flashpoint (closed cup): 28 °c

Array of inflammability: Lower limit: 3.3 for ethanol Upper limit: 19 for ethanol

Solubility:	in water:	Yes	in oil:	No
	in ethanol:	Yes	in propylene glycol:	Yes

10 - STABILITY AND REACTIVITY*Circumstances to avoid:* Stable under normal storage conditions (see also the tech. specs. card)*Material to avoid:* No known risks*Dangerous degradation products:* Does not present any known risks under normal conditions of use

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Product number: **LM3555**
Designation **PEACH FLAVOUR**

11 - TOXICOLOGY

<i>Effect of ingestion:</i>	Drunkenness, possible lack of vigilance if large doses ingested
<i>Effect of contact with skin:</i>	No known data
<i>Effect of contact with eyes:</i>	No known data
<i>Effect of inhalation:</i>	Can cause vertigo, headaches, drowsiness if inhalation of released vapours
<i>Sensitisation:</i>	No known data

12 - ENVIRONMENTAL INFORMATIONS

<i>Disposal of product:</i>	Avoid sewer disposal and contamination of ground and environment such as air or water.
<i>Persistence and bio degradability:</i>	Not measured
<i>Potential of bio-accumulation:</i>	Not measured
<i>Ecotoxicity:</i>	Not measured

13 - PRODUCT DISPOSAL CONSIDERATIONS

<i>Destruction:</i>	Avoid disposing of product in nature or in the sewage system. Product should be destroyed by incineration by an approved contractor
<i>Destruction of packaging:</i>	Depending on the regulations in force. It is recommended to avoid reusing this product

14 - TRANSPORT INFORMATIONS

U.N Code:	1197	
Principal class:	3	Subsidiary class

ADR/RID restructured 2001 (packing group/class code)	III/F1
IMDG (packing group/Safety Data Sheet n°):	III/F-E, S-D
Sea Pollutant:	NO
IATA Pax (packing group-instruction packing):	III-309
IATA Cargo (packing group-instruction packing):	III-310

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Review date : 28/03/2002

Product number: **LM3555**
Designation **PEACH FLAVOUR**

15 - REGULATORY INFORMATION

Symbol:

Risk phrases:

R10 Flammable

Safety phrases:

S7 Keep container tightly closed
S16 Keep away from sources of ignition - No Smoking

In any case, local and applicable regulations have to be followed

16 - FURTHER INFORMATION

This MSDS completes the informations given in the TDS. The given data is based on the knowledge of the product we have at the date of review. Please be aware of the risks undertaken when the product is used in other ways for which has been specifically designed. (This product is for industrial use and should not be consumed as it)

Release:

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MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Revision Date : July 2006

Product Name : PHOSPHORIC ACID

Other Names : ORTHOPHOSPHORIC ACID

Uses : Fertilizers, soaps and detergents, inorganic phosphates, pickling and rust- proofing metals, pharmaceuticals, sugar refining, gelatin manufacture, water treatment, animal feeds, electropolishing, petrol additive, conversion coatings for metals, catalyst for ethanol manufacture, lakes for cotton dyeing, yeasts, soil stabilizer, waxes and polishes, binder for ceramics, activated carbon, laboratory reagent.

Organisation	Location	Telephone	Ask For
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61 2 97333000	Technical Officer
	318D Ti Rakau Drive East Tamaki New Zealand	+64 9 2732777	
Poisons Information Centre Westmead NSW Australia		131126	
Chemcall	Australia	1800-251525	
	New Zealand	1800-127406	
National Poisons Centre	New Zealand	0800-243622	
		0800-764766	

2. HAZARD IDENTIFICATION

Hazardous according to criteria of NOHSC/ASCC

Dangerous According to the Australian Code for the Transport of Dangerous Goods

Classified as Dangerous Goods According to NZS 5433:1999

CORROSIVE

Risk Phrases

R34 Causes burns.

Safety Phrases

S1/2 Keep locked up and out of the reach of children.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

ERMA New Zealand Approval Code : HSR001545

HSNO Hazard Classification : 6.1D 8.1A 8.2C 8.3A 9.1D 9.3C

This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The ERMA website <http://www.ermanz.govt.nz/> should be consulted for a full list of triggered controls and cited regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportions (%)
PHOSPHORIC ACID	[7664-38-2]	59-93

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed

Rinse mouth with water. Give 2 glasses of water to drink. Transport to hospital immediately!

Eye

Immediately flush eyes with plenty of water holding eyelids open. Transport to an eye doctor. Keep flushing with water during transport.

Skin

In case of burns, do NOT remove clothing that is stuck to the skin. Rinse with plenty of water, then remove contaminated clothing. Rinse again and seek medical attention.

Inhaled

Remove victim from exposure to fresh air. Seek medical attention and hospitalize if necessary.

Advice to Doctor

Treat symptomatically based on individual reactions of patient and judgement of doctor.

Additional Information

Aggravated medical conditions caused by exposure

No information available on medical conditions aggravated from exposure to this product. However, this product causes burns.

5. FIRE FIGHTING MEASURES

Extinguishing Media

In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions.

Hazards from Combustion Products

Product is non-flammable. The product itself does not burn. Not explosive. Upon heating or combustion, corrosive and toxic fumes are including phosphorus pentoxide among others. Reacts violently with bases. Attacks many metals forming flammable hydrogen gas. Reacts violently with oxidation agents and many other compounds.

Special protective precautions and equipment for fire fighters

Fire fighters should wear a self contained breathing apparatus and full protective clothing along with protective equipment.

Flammability Conditions

Product is a non-flammable liquid.

Additional Information

Hazchem Code : 2R

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures

Personnel involved in the clean up should wear full protective clothing. Evacuate all unnecessary personnel. Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.

Methods and materials for containment and clean up

Neutralize spilled product with lime or soda. Soak up using absorbent material such as sand or soil. When saturated, collect material and transfer to a suitable, labelled, dry, sealable containers and hold for safe disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibles

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials including oxidizing agents, bases, reducing agents, aluminium, tin, zinc and sources of ignition. Protect from direct sunlight. This product has a UN classification of 1805 and a Dangerous Goods Class 8 (corrosive) according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.

Container Type

Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001. Store in original packaging as approved by manufacturer. Do NOT use light metal containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

Phosphoric Acid cas no: 7664-38-2 exposure standards; TWA: 1mg/m³ STEL: 3mg/m³

Biological Limit Values

No information available on biological limits for this product.

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Protection

RESPIRATOR: Wear an NIOSH approved respirator. EYES: Safety goggles or face shield. HANDS: Butyl rubber or PVC gloves. CLOTHING: Acid-resistant clothing and boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	colourless liquid
Formula	H ₃ PO ₄
Odour	odourless
Vapour Pressure	2mbar mm Hg (1 atmosphere)
Vapour Density	3.4
Boiling Point	160°C (59%) deg C
Melting Point	-80°C (59%) deg C
Solubility in water	Soluble
Specific Gravity	1.7 (Water = 1)
Flash Point	N/A
pH	1 (1g/L H ₂ O)
Flammability Limits (as percentage volume in air)	
Lower Explosion Limit	Not Applicable
Upper Explosion Limit	Not Applicable
Ignition Temperature	Not Applicable
Specific Heat Value	Not Applicable
Particle Size	Not Applicable
Volatile Organic Compounds (VOC) content	Not Applicable
Evaporation Rate	Not Applicable
Viscosity	3.86 (40%)
Percent Volatile	No Data
Octanol/Water partition coefficient	Not Applicable
Saturated Vapour Concentration	Not Applicable
Additional Characteristics	Not Applicable
Flame Propagation/Burning Rate of Solid Materials	Not Applicable
Properties of materials that may initiate or contribute to fire intensity	Not Applicable
Potential for Dust Explosion	Product is a liquid.
Reactions that Release Flammable Gases	Attacks metals emitting hydrogen gas.
Fast or Intensely Burning Characteristics	Not Applicable
Non-flammables that could contribute unusual	Contact with metals forms flammable hazard.

hazards to a fire**Release of invisible flammable vapours and gases** No Data**Decomposition Temperature** No Data**Additional Information**

Boiling Point 90% concentration: 800°C Melting Point 90% concentration: 29°C

10. STABILITY AND REACTIVITY**Chemical Stability :** Product is stable under normal conditions of use and storage.**Conditions to avoid :** Avoid excessive heat, direct sunlight and high temperatures.**Incompatible Materials :** Incompatible with oxidizing agents, bases, reducing agents, aluminium, tin, zinc, metals and sources of ignition.**Hazardous Decomposition Products :** Product may decompose forming phosphorus oxides. Attacks many metals forming flammable hydrogen gas.**Hazardous Reactions :** Hazardous reaction may occur with oxidizing agents and many other compounds.**11. TOXICOLOGICAL INFORMATION****Toxicity Data**

Inhale LC50 Rabbit: 1689mg/L Oral LD50 Rat: 1530mg/Kg Skin LD50 Rabbit: 2740mg/Kg Dermal Rabbit: 595mg/24hr (severe skin irritation) Eye Rabbit: 119mg/ (eye irritation)

Health Effects - Acute**Swallowed**

Irritating to the mouth, throat and gullet if swallowed. Symptoms include blisters on the lips and in the mouth, gastric spasms, nausea, vomiting and diarrhoea.

Eye

Irritating to eyes. Symptoms include redness, pain, disturbed vision, damage to the cornea and severe burns.

Skin

Irritating to skin. Symptoms include redness, pain, burning sensation and blisters. Skin contact may result in eczema-like skin conditions if skin is damaged.

Inhaled

Irritating to airways. Inhalation of the vapour can result in pulmonary oedema, however only after symptoms of corrosive effects on the mucosa of the eyes and upper airways. Symptoms include burning sensation, sore throat, coughing, shortness of breath and dyspnoea.

12. ECOLOGICAL INFORMATION**Ecotoxicity :** No Data

Persistence and degradability : Not easily biodegradable.

Mobility : Not known.

Additional information

Environmental fate (exposure) : Avoid contaminating drains, sewers and waterways.

Bioaccumulative potential : No bioaccumulation.

13. DISPOSAL CONSIDERATIONS

Disposal

Dispose of in accordance with all local, state and federal regulations.

Special Precautions for land fill or incineration

This should be done in accordance with the Hazardous Substances (Disposal) Regulations 2001.

14. TRANSPORT INFORMATION

UN No.	1805 PHOSPHORIC ACID
Shipping Name	8 None Allocated
Dangerous Goods Class	III CORROSIVE
Subsidiary Risk	2R
Pack Group	
Precaution for User	
Hazchem Code	



15. REGULATORY INFORMATION

Poisons Schedule	6
EPG	37
AICS Name	PHOSPHORIC ACID
NZ Toxic Substance	3
Additional information	No Data

16. OTHER INFORMATION

Additional information

Legend to abbreviations and acronyms:

<	less than
>	greater than

AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substance and New Organism
IDLH	Immediately Dangerous to Life and Health
LC ₅₀	LC stands for lethal concentration. LC ₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD ₅₀	LD stands for "Lethal Dose". LD ₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals
Misc	miscible
N/A	Not Applicable
NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
OECD	Organization for Economic Co-operation and Development
PEL	Permissible Exposure Limit
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations (number)
cm ²	square centimetres
deg C (°C)	degrees Celsius
g	gram
g/cm ³	grams per cubic centimetre
g/l	grams per litre
immiscible	liquids are insoluble in each other
kg	kilogram
kg/m ³	kilograms per cubic metre
ltr	Litre
m ³	cubic metre
mPa.s	milli Pascal per second
mbar	millibar
mg	milligram
mg/24H	milligrams per 24 hours
mg/kg	milligrams per kilogram
mg/m ³	milligrams per cubic metre
miscible	liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	millimetre
ppb	parts per billion
ppm	parts per million
ppm/2h	parts per million per 2 hours
ppm/6h	parts per million per 6 hours
tne	tonne
ug/24H	micrograms per 24 hours
wt	weight

Literature references:

No Data

Sources for data:

No Data



Australia New Zealand

Adelaide Auckland
Brisbane Christchurch
Melbourne Hawkes Bay
Perth
Sydney

Sydney Office

2 Swettenham Road telephone: +61 (0)2 97333000

Minto NSW 2566 facsimile: +61 (0)2 97333111

Australia <http://www.redox.com/>
[mailto:sydney@redox.com?subject=MSDS%20for%20PHOSPHORIC ACID](mailto:sydney@redox.com?subject=MSDS%20for%20PHOSPHORIC%20ACID)

This MSDS summarises Redox Pty Ltd best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however Redox Pty Ltd expressly disclaims that the MSDS is a representation or guarantee of the chemical specifications for the substance. Each user should read the MSDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.

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Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: POTASSIUM CITRATE

Supplier: Bronson & Jacobs Pty Ltd
ABN: 81 000 063 249
Street Address: 70 Marple Avenue
Villawood NSW 2163
Australia
Telephone Number: +61 2 8717 2929
Facsimile: +61 2 9755 9611

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Based on available information, not classified as hazardous according to criteria of ASCC; NON-HAZARDOUS SUBSTANCE.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Poisons None allocated.
Schedule:

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description: General chemical.

Components / CAS Number	Proportion	Risk Phrases
Potassium citrate monohydrate 6100-05-6	100%	-

4. FIRST AID MEASURES

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

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Eye Contact:	If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.
Ingestion:	Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical assistance.
Medical attention and special treatment:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazards from combustion products:	Non-combustible material.
Precautions for fire fighters and special protective equipment:	Decomposes on heating emitting toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.
Suitable Extinguishing Media:	Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and clean up:	Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact. Avoid breathing in dust. Work up wind or increase ventilation. Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Conditions for safe storage:	Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

Precautions for safe handling: Avoid skin and eye contact and breathing in dust.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Product Name: POTASSIUM CITRATE
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No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates:

Nuisance dust: 8hr TWA = 10 mg/m³

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protective Equipment:

The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If excessive dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Colour:	Colourless
Odour:	Odourless
Molecular Formula:	C ₆ H ₅ K ₃ O ₇ .H ₂ O
Solubility:	Soluble in water.
Specific Gravity:	1.98
Flash Point (°C):	Not applicable.
Melting Point/Range (°C):	180
pH:	8.5 (10% solution)

10. STABILITY AND REACTIVITY

Product Name: POTASSIUM CITRATE
Substance No: 000000033732

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Material Safety Data Sheet

Chemical stability: Incompatible with oxidising agents .

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.

Eye contact: May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Skin contact: Repeated or prolonged skin contact may lead to irritation.

Inhalation: Material may be irritant to the mucous membranes of the respiratory tract (airways).

Long Term Effects:

No information available for the product.

Toxicological Data:

No LD50 data available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Normally suitable for disposal at approved land waste site.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

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Material Safety Data Sheet

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification: Based on available information, not classified as hazardous according to criteria of ASCC; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule: None allocated.

16. OTHER INFORMATION

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

Reason(s) for Issue:

First Issue Primary MSDS

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Bronson & Jacobs Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Bronson & Jacobs Pty Ltd at the contact details on page 1.

Bronson & Jacobs Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.

Product Name: POTASSIUM CITRATE
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Material Safety Data Sheet

PLUM COLA FLAVOUR



1 . Chemical Product and Company Identification

STATEMENT OF HAZARDOUS NATURE

Not classified as hazardous according to the criteria of NOHSC but classified as dangerous goods according to the ADG Code.

COMPANY DETAILS

Manufacturer

Quest International Australia Limited,
12 Britton Street, Smithfield NSW 2164

Emergency telephone number : (02) 9827-4000

IDENTIFICATION

Product name : PLUM COLA FLAVOUR

Product Code : QL85811

USES

Area of Application : Industrial applications.

2 . Composition/information on ingredients

Mixture : Yes.

Chemical name	CAS No.	% by Weight
ETHANOL	64-17-5	10-25
SUCROSE	57-50-1	10-25
WATER	7732-18-5	10-25
PORTELLO BASE 17574 (BARN & FOST)		1-5
SYRUPS, HYDROLYZED STARCH		25-50

Other ingredients, determined not to be hazardous according to NOHSC criteria, make up the product concentration to 100%.

3 . Hazards identification

Emergency Overview

Appearance : Liquid.

Odour : Not available.

Physical/chemical Hazards : Flammable.

Dangerous Goods Classification (ADG Code)

UN number : 1197

Proper shipping name : EXTRACTS, FLAVOURING, LIQUID

Class : 3

Sub-Risk : -

Packing group : III

Hazchem Code : 3[Y]

Initial Emergency Response Guide : 3A1

Poison Schedule (Australia) : Not scheduled

Toxic Substances Schedule (NZ) : Not available.

Source: SUSDP

Source: NZ Toxic Substances
Regulations

Potential Acute Health Effects

Inhalation : Not available.

Ingestion : Not available.

Skin contact : Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available.

Eye Contact : Not available.

Potential Chronic Health Effects : Repeated or prolonged exposure is not known to aggravate medical condition.

Material Safety Data Sheet

PLUM COLA FLAVOUR



4 . First-aid measures

First-aid measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention.
- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Obtain medical attention.

5 . Fire-fighting measures

- Nature of Material / Extinguishing media** : SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray or fog. Never direct a water jet into the container in order to prevent any splashing of the product, which could cause the fire to spread. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
- Hazardous thermal (de)composition products** : These products are carbon oxides (CO, CO₂).
- Special fire-fighting procedures** : Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
- Protection of fire-fighters** : Be sure to use an approved/certified respirator or equivalent.

6 . Accidental release measures

- Personal Precautions** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
- Environmental precautions and cleanup methods** : Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other noncombustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

7 . Handling and storage

- Handling** : Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store between 10 to 25°C (50 to 77°F).
- Packaging materials**
- Recommended use** : Use original container.

8 . Exposure controls/personal protection

Occupational Exposure Limits

Ingredient Name

ETHANOL

SUCROSE

Engineering measures

Hygiene measures

Personal protective equipment

Respiratory system

Occupational Exposure Limits

NOHSC (Australia, 1995).

TWA: 1880 mg/m³ 8 hour(s).

TWA: 1000 ppm 8 hour(s).

NOHSC (Australia, 1995). Notes: This value is for inspirable dust containing no asbestos and <1% crystalline silica (see Chapter 14)
ACGIH is the documentation source.

TWA: 10 mg/m³ 8 hour(s).

: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

: Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

: Wear appropriate respirator when ventilation is inadequate.

Material Safety Data Sheet

PLUM COLA FLAVOUR



- Skin and body** : Lab coat.
- Eyes** : Safety glasses.
- Notes** : Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716.
Eye protectors should conform to AS/NZS 1336 and AS/NZS 1337.
Chemically resistant gloves should conform to AS/NZS 2161.1.
Protective clothing should conform to AS 3765.1 or AS 3765.2.
Occupational footwear should conform to AS/NZS 2210.

9 . Physical and chemical properties

- Physical state** : Liquid.
- Colour** : Red.
- Odour** : Not available.
- Boiling point** : The lowest known value is 78.4°C (173.1°F) (ETHANOL). Weighted average: 91.41°C (196.5°F)
- Melting point** : May start to solidify at -0.1°C (31.8°F) based on data for: WATER. Weighted average: -45.01°C (-49°F)
- Vapour pressure** : Not available.
- Specific gravity** : 1.2069 (Water = 1)
- Density** : The only known value is 1 g/cm³ (WATER).
- Flash point** : Closed cup: 24°C (75.2°F).
- Explosive properties** : Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.
- Flammable Limits** : Not available.
- Vapour density** : The highest known value is 1.6 (Air = 1) (ETHANOL).
- Autoignition temperature** : The lowest known value is 398.9°C (750°F) (ETHANOL).
- Evaporation rate (butyl acetate = 1)** : The highest known value is 1.7 (ETHANOL) Weighted average: 0.89 compared to (n-BUTYL ACETATE=1)
- Solubility** : Insoluble in cold water.

10 . Stability and reactivity

- Stability** : The product is stable.
- Materials to avoid** : Not available.
- Hazardous decomposition products** : These products are carbon oxides (CO, CO₂).

11 . Toxicological information

Local effects

- Skin irritation** : Not available.
- Eye irritation** : Not available.

Toxicity Data	Test	Result	Route	Species
ETHANOL	LD50	7060 mg/kg	Oral	Rat
	LD50	6300 mg/kg	Oral	Rabbit
	LD50	3450 mg/kg	Oral	Mouse
	LDLo	1400 mg/kg	Oral	human
	LDLo	5500 mg/kg	Oral	Dog
SUGAR	LD50	29700 mg/kg	Oral	Rat

Specific effects

- Carcinogenic effects** : Classified None. by NIOSH [SUCROSE]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [SUCROSE]. Classified None. by NIOSH [ETHANOL]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [ETHANOL].
- Mutagenic Effects** : Not available.
- Reproduction toxicity** : Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [ETHANOL].

Material Safety Data Sheet

PLUM COLA FLAVOUR



12 . Ecological information

Persistence/degradability : Not available.
Ecotoxicity : Not available.

13 . Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : All waste must be disposed of in accordance with Local Authority, State Pollution Control Commission, EPA or Metropolitan Waste Disposal Authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	Sub-Risk	PG	Additional Information
ADG	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	III	Hazchem Code: 3[Y] Initial Emergency Response Guide: 3A1
IMDG	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	III	-
IATA	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	III	-

15 . Regulatory information

Remarks : Not available.
Carcinogenic Substances Schedule (NOHSC) : Not available.
Australian Inventory Status : Australia (NICNAS): CITRIC ACID; BENZALDEHYDE, 4-HYDROXY-3-METHOXY-; BENZOIC ACID, SODIUM SALT; SUCROSE; CARAMEL, COLOR; ETHANOL; WATER; SYRUPS, HYDROLYZED STARCH

16 . Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Enquiries regarding MSDS Content should be directed to:

Title: **Technical Department**

Telephone No.: **(02) 9827-4000**

Date of issue : 6 July 2005

Version : 1

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product RASPBERRY FLAVOUR REV1

Print Date 10.10.2008

Page 1 (8)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : RASPBERRY FLAVOUR REV1
Cust. Material : 1AA07218
Use of the Substance/Preparation : Flavor for consumer product
Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

Symbol(s) : F Highly flammable
Xi Irritant
R-phrases(s) : R11 Highly flammable.
R36/38 Irritating to eyes and skin.
S-phrases(s) : S 9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No
smoking.
S26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.
S33 Take precautionary measures against static
discharges.
S37 Wear suitable gloves.
Advice : When undiluted and not properly handled, can be irritating to the skin
and eyes and upon inhalation.
Potential environmental effect : When spilled, can contaminate soil, ground- and surface water.

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Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

CAS-No.	Components	Classification	Concentration
64-19-7	Acetic acid	C, R10, R35	10 - 20 %
50-21-5	Propanoic acid, 2-hydroxy-	Xi, R38, R41	5 - 10 %
5471-51-2	2-Butanone, 4-(4-hydroxyphenyl)-	Xn, R22	0 - 10 %
140-26-1	Butanoic acid, 3-methyl-, 2-phenylethyl ester	N, R51/53	0 - 2.5 %

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous 60 - 100%

4. FIRST AID MEASURES

General advice : Take Risk and Safety phrases (section 15) into account.

Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.

Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbondioxide, dry chemical, foam.

Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.
- If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.
- Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

- Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

- Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

- Advice : Where appropriate, use closed systems to transfer and process this

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material

If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

- Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.
- If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:
- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
 - b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
 - c) if normal operational workplace vapor concentration in the air is increased due to heat ;
 - d) during emergencies; or
 - e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.
- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.
To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and

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Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].

In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".

Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
ACETIC ACID	64-19-7	TWA	10 ppm 25 mg/m ³	1994-01-01	NZ OEL
		STEL	15 ppm 37 mg/m ³	1994-01-01	NZ OEL
		STEL	15 ppm 37 mg/m ³	1995-05-01	AU OEL
		TWA	10 ppm 25 mg/m ³	1995-05-01	AU OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : pale pink

Safety data

Version : 1
Revision Date : 07.08.2007



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INTERNATIONAL FLAVORS & FRAGRANCES

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Flash point : 18.00 °C

Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG

UN-Number : 2924

Description of the goods : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(ETHYL ALCOHOL, ACETIC ACID)

Class : 3

Packaging group : II

ADR

UN-Number : 2924

Description of the goods : FLAMMABLE LIQUID, CORROSIVE, N.O.S.

Version : 1

Revision Date : 07.08.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product RASPBERRY FLAVOUR REV1

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(ETHYL ALCOHOL, ACETIC ACID)
Class : 3
Packaging group : II

IATA

UN-Number : 2924
Description of the goods : Flammable liquid, corrosive, n.o.s.
(ETHYL ALCOHOL, ACETIC ACID)
Class : 3
Packaging group : II

IMDG_GLOBAL

UN-Number : 2924
Description of the goods : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(ETHYL ALCOHOL, ACETIC ACID)
Class : 3
Packaging group : II
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

Symbol(s) : F Highly flammable
Xi Irritant

R-phrases : R11 Highly flammable.
R36/38 Irritating to eyes and skin.

S-phrases : S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33 Take precautionary measures against static discharges.
S37 Wear suitable gloves.

Sensitising components : May produce an allergic reaction.

National regulatory information

Standard for the Uniform : No poison schedule number allocated

Version : 1
Revision Date : 07.08.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product RASPBERRY FLAVOUR REV1

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Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.
R11 Highly flammable.

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

Version : 1
Revision Date : 07.08.2007

SAFETY DATA SHEET

Red Cabbage 30 WSP

Version: 1-AUS/EN

Revision Date: 20-12-2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: Red Cabbage 30 WSP

Material No.: 501841

Application: For food application.

Supplier: Chr. Hansen Pty Ltd
P.O. Box 591
3153 Bayswater, Victoria
Phone: +61 3 9762 9600

Emergency telephone: +61 3 9762 9600 (Monday through Friday, 8:00 AM to 5:00 PM)

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of NOHSC.

RISK PHRASES: None.

SAFETY PHRASES: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: food color.

Does not contain substances that must be indicated according to current regulations.

SAFETY DATA SHEET

Red Cabbage 30 WSP

Version: 1-AUS/EN

Revision Date: 20-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

4. FIRST-AID MEASURES

Inhalation:	Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and take along these instructions.
Skin contact:	Remove contaminated clothes and rinse skin thoroughly with water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
Eye contact:	Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion:	Rinse mouth thoroughly. If uncomfortable: Get medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Specific hazards:	No specific precautions.
Protective equipment for fire-fighters:	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid generation and spreading of dust. Follow precautions for safe handling described in this safety data sheet. Avoid contact with eyes. Avoid inhalation of dust. For personal protection, see section 8.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Spill Cleanup Methods:	Use a vacuum cleaner. If not possible, moisten dust with water before it is collected with shovel, broom or the like. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Safe handling advice:	Avoid inhalation of dust. Avoid contact with eyes. Observe good industrial hygiene practices.
Technical measures:	Keep the workplace clean. Use mechanical ventilation in case of handling which causes formation of dust. Use work methods which minimise dust production. Take precautionary measures against static discharges when there is a risk of dust explosion.
Technical precautions:	Local exhaust is recommended.
Technical measures for safe storage:	Comply with the regulations on protection against dust explosions.
Storage conditions:	Store in closed original container at temperatures between: 0 - 30 °C / 32 - 86 °F. Protect against direct sunlight. Store in a dry place.

SAFETY DATA SHEET

Red Cabbage 30 WSP

Version: 1-AUS/EN

Revision Date: 20-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust.
Respiratory equipment:	In case of inadequate ventilation: Use respiratory equipment with particle filter, type P1. The use of filtering respirators should be limited to max. 3 hours per day.
Hand protection:	Gloves are recommended for prolonged use.
Eye protection:	Use tight fitting goggles if dust is generated.
Skin protection:	No special precautions.
Hygiene measures:	Wash hands after contact.
Environmental Exposure Controls:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Colour:	Dark reddish violet
Odour:	Characteristic
pH:	3.30
Melting point (°C):	Not relevant
Boiling point (°C):	Not relevant
Decomposition temperature (°C):	Not relevant
Flash point (°C):	Not relevant
Explosive properties:	Not relevant
Relative density:	0.25
Solubility:	Water soluble

10. STABILITY AND REACTIVITY

Stability:	Stable under normal temperature conditions and recommended use.
Conditions/materials to avoid:	Humidity and direct sunlight.
Hazardous decomposition products:	None under normal conditions.

SAFETY DATA SHEET

Red Cabbage 30 WSP

Version: 1-AUS/EN

Revision Date: 20-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

11. TOXICOLOGICAL INFORMATION

Inhalation:	Dust may irritate respiratory system.
Skin contact:	Dust has an irritating effect on moist skin.
Eye contact:	Dust in the eyes will cause irritation.
Ingestion:	May irritate and cause malaise.
Specific effects:	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

12. ECOLOGICAL INFORMATION

Mobility:	The product is water soluble and may spread in water systems.
Degradability:	The product is expected to be biodegradable.
Ecotoxicity:	The environmental hazard of the product is considered to be limited.
Bioaccumulative potential:	Bioaccumulation: Is not expected to be bioaccumulable.
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADG).

15. REGULATORY INFORMATION

Poison Schedule Number:	No Poisons Schedule number allocated.
Hazard Category:	Not classified.
Specific Provisions:	Local State and Territory regulation may apply.

SAFETY DATA SHEET

Red Cabbage 30 WSP

Version: 1-AUS/EN

Revision Date: 20-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. A small green diamond is positioned below the 'H' in HANSEN.

16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

Revision Date: 20-12-2006

Wording of Risk Phrases

-

References:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, NOHSC:2011(2003).

List of Designated Hazardous Substances, NOHSC:10005(1999).

Approved Criteria for Classifying Hazardous Substances, NOHSC:1008(2004).

The information in this Safety Data Sheet has been obtained from current and reliable sources. However, the data is provided without warranty, express or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss injury, damage, or expense resulting from improper use of this product.

DATE OF ISSUE: September 2005

REPLACES: None

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

SUPPLIER	Matthews Australasia Pty Ltd ABN 15 169 124 398 Address: 35 Laser Drive , Rowville, Victoria 3178, AUSTRALIA Telephone: +61 3 9763 0533 Emergency Telephone No: +61 3 9763 0533 (Monday to Friday 8:30 am – 5:00 pm.)
PRODUCT	Product Name: SCP-700 (Also valid for SCP-702, SCP-703, SCP-704, SCP-705, SCP-706, SCP-709 (FD)) Other Names: Methyl ethyl ketone/propanol mixture, PRINTING INK, flammable. Manufacturer's Code: I0471
USE	Printing ink for use in printing machines.

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION	NOHSC Classification: Hazardous Substance ADG Classification: Dangerous Goods, Class 3 SUSDP Classification: Schedule 5 poison
RISK PHRASES	R36 Irritating to eyes. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
SAFETY PHRASES	S2 Keep out of reach of children. S7 Keep container tightly closed. S9 Keep container in a well-ventilated place. S16 Keep away from ignition sources - No smoking. S24/25 Avoid contact with skin and eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE	CHEMICAL ENTITY	CAS No	PROPORTION
	Methyl ethyl ketone	78-93-3	> 60%
	Isopropanol	67-63-0	< 10%
	n-propanol	71-23-8	< 10%
	Other ingredients determined not to be hazardous	Not applicable	< 10%

DATE OF ISSUE: September 2005

REPLACES: None

4. FIRST AID MEASURESFIRST AID

Swallowed: For advice, call a Poisons Information Centre or a doctor at once. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below the hips to prevent aspiration into lungs.

Eyes: If in eye, irrigate immediately with copious amounts of water for 15 minutes with eyelids held open. Seek medical advice immediately.

Skin: Wash affected areas with soap and copious quantities of water. Remove contaminated clothing and footwear. Decontaminate footwear and wash clothing before reuse. Seek medical advice if skin irritation develops.

Inhaled: Remove victim to fresh air. Seek medical advice immediately if adverse symptoms such as respiratory irritation, dizziness or unconsciousness develop. If breathing has stopped apply artificial respiration.

First Aid Facilities: Have eyewashes and safety showers available in the work area.

ADVICE TO
DOCTOR

Treat symptomatically. Look for signs of aspiration into lungs. The substance may cause chemical pneumonitis.

5. FIRE FIGHTING MEASURESEXTINGUISHING
MEDIA

Water fog, alcohol foam, dry chemical, carbon dioxide.

HAZARDOUS
COMBUSTION
PRODUCTS

Smoke, carbon monoxide, carbon dioxide.

PRECAUTIONS FOR
FIRE FIGHTERS

This product is highly flammable. Keep containers cool with water spray to prevent rupture of container. Wear full protective equipment including self-contained breathing apparatus. The vapour of this product is heavier than air and will travel considerable distances. An ignition source within its range may explosively ignite the vapour and flash back along the vapour trail.

HAZCHEM CODE

3[Y]E

6. ACCIDENTAL RELEASE MEASURESEMERGENCY
PROCEDURES

This product is a highly flammable liquid. Isolate hazard area and deny entry to unauthorised personnel. Remove all sources of ignition. Stop leak if it can be done without personal risk. Avoid breathing vapours. Ventilate enclosed area.

DATE OF ISSUE: September 2005

REPLACES: None

**CLEAN UP
PROCEDURE**

Small Spills: Wear safety goggles or face shield and butyl rubber gloves and wipe up spill with paper or rags. Allow product to evaporate outdoors or in a well ventilated area and dispose mopping-up medium as general industrial waste.

Large spills: Notify fire brigade. Wearing full personal protective equipment, including self-contained breathing apparatus, contain spill with sand, earth or Vermiculite. Prevent run-off into drains or waterways. Bail or pump, using flameproof equipment, any free liquid into sealable metal containers. Collect absorbed material and also place it in into sealable metal drums. Seal containers and label them in accordance with the Hazardous Substances Labelling Code.

7. HANDLING AND STORAGE**PRECAUTION FOR
SAFE HANDLING**

Practice sound industrial hygiene. Wear butyl rubber gloves, safety goggles and clothing that will minimise skin contact. Wash hands before work breaks. Remove contaminated clothing and protective equipment before entering eating areas. Keep away from ignition sources and guard against static electricity discharges. Avoid run-off into drains or waterways.

STORAGE

Store in a cool dry place and out of direct sunlight. Store in a manner that will minimize fire or explosion risks. Guard against static electricity accumulation or discharge. Store in a bonded area, and if in excess of the regulatory quantity, in a flammable goods store. Do not store with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE**

An exposure limit for this product has not been set. The exposure standards to [NOHSC:1008(2004)] for the major components are:

Exposure standard

Methyl ethyl ketone
Isopropanol
n-Propanol

TWA

445 mg/m³
983 mg/m³
492 mg/m³

**BIOLOGICAL
LIMIT VALUES**

BEI for MEK = 2 mg/L (ACGIH); Isopropyl alcohol = 50 mg/L (BAT).

**ENGINEERING
CONTROLS**

Use only in well ventilated areas and with local exhaust ventilation. Maintain air concentrations below exposure standards.

**PERSONAL
PROTECTION
EQUIPMENT**

Under condition of ordinary use, wear safety goggles, butyl rubber gloves long sleeved overalls and sturdy work boots. In case of a large spills or when working in confined areas, use a full-face respirator fitted with suitable organic vapour canister (for selection guidance see AS 1715), impervious long sleeved overalls, long sleeved butyl rubber gloves and butyl rubber gumboots.

DATE OF ISSUE: September 2005

REPLACES: None

9. PHYSICAL AND CHEMICAL PROPERTIESPHYSICALDESCRIPTION &
PROPERTIES**Appearance:** A free flowing liquid having a colour specified on the label.**Odour:** Characteristic ketonic odour**pH:** Not applicable**Vapour Pressure:** 105 hPa at 20°C (MEK).**Vapour Density:** >1 (Air=1)**Boiling Point:** Not established.**Melting Point:** -86°C (MEK).**Solubility in Water:** Minor**Specific Gravity:** ca. 0.82**Flash Point:** -4°C. (Closed cup) (MEK)**Flammability limits (MEK):** L.E.L. = 1.8 % (by vol.)

U.E.L. = 11.5 % (by vol.)

Ignition temperature: 514°C. (MEK)OTHERPROPERTIES

No data.

10. STABILITY AND REACTIVITYCHEMICAL
STABILITY

This material is stable under normal ambient and anticipated storage and handling conditions.

CONDITIONS
TO AVOID

Avoid excessive temperatures, ignition sources and contact with incompatible materials.

INCOMPATIBLE
MATERIALS

Strong mineral acids, hydrogen peroxides, strong alkalies, oxidizing agents and chloroform.

HAZARDOUS
DECOMPOSITION
PRODUCTS

No data

HAZARDOUS
REACTIONS

Hazardous polymerization will not occur.

DATE OF ISSUE: September 2005

REPLACES: None

11. TOXICOLOGICAL INFORMATION

This mixture has not been tested as a whole for its health effects. The toxicology data and health effects given below are those of the major components, of this preparation.

ACUTE
HEALTH
EFFECTS

Swallowed: Ingestion may cause headaches, nausea, vomiting and adverse effects to the central nervous system due to the presence of methyl ethyl ketone. Large doses may result in coma and death. May pose a risk of aspiration, which can lead to chemical pneumonitis. Toxicity by this route is expected to be low. LD₅₀ (rat) for methyl ethyl ketone is 1.87-6.5 g/kg; for isopropanol it is 5.05g/kg and for n-propanol it is 1.87g/kg.

Eyes: Severe irritant due to the presence of n-propanol, MEK and isopropanol. May cause reddening of the eye, lachrymation and transient eye damage.

Skin: Slight skin irritant due to the presence of MEK, n-propanol and isopropanol. May cause some reddening, drying and rough chapped skin. Is absorbed through the skin. LD₅₀ (rabbit) for MEK is >2000 mg/kg; isopropanol it is 12.8 g/kg and for n-propanol it is 4000mg/kg.

Inhaled: Irritant to the respiratory system. Inhalation of high vapour or mist concentrations may lead to dizziness, nausea and loss of consciousness and continued inhalation may lead to death. LC₅₀ (rat) for MEK is 20 mg/L/4h for isopropanol it is 46.5 mg/L/4h and for n-propanol it is >34 mg/L/4 h.

CHRONIC
HEALTH
EFFECTS

Prolonged or repeated skin contact with MEK may defat the skin and could lead to irritant contact dermatitis. Liver and kidney damage have been reported for MEK in test animals, particularly at high exposure levels. Animal studies suggest that MEK may potentiate the toxic action of some other compounds such as n-hexane. None of the ingredients in this mixture is a sensitizer, mutagenic or carcinogenic.

DELAYED
EFFECTS

No data.

DATE OF ISSUE: September 2005

REPLACES: None

12. ECOLOGICAL INFORMATION

The ecological effect of the mixture as a whole has not been tested. The ecological information of the three major components is given below:

	Methyl ethyl ketone	Isopropanol	n-propanol
<u>ECOTOXICITY</u>	Methyl ethyl ketone is expected have little long term effect on the aquatic environment and has a low acute toxicity to aquatic organisms. <u>Fish toxicity:</u> P. promelas; LC ₅₀ = 3220 mg/L/96 h <u>Invertebrate toxicity:</u> Daphnia magna; EC ₅₀ = 5090 mg/L/48 h. <u>Algal toxicity:</u> Sc. quadricauda; IC ₅ ≥ 4300 mg/L/7 d. <u>Bacterial toxicity:</u> Ps. putida; EC ₅ = 1150 mg/L/16 h.	The available data does not suggest any toxicity to aquatic organisms or harmful effects to the aquatic environment. <u>Fish toxicity:</u> P. promelas; LC ₅₀ = 9640 mg/L/96h <u>Invertebrate toxicity:</u> Daphnia magna, EC ₅₀ =13300 mg/L/48h <u>Algal toxicity:</u> Sc. quadricauda; IC ₅ ≥ 1800 mg/L/8 d <u>Bacterial toxicity:</u> Ps. putida EC ₅ = 1050 mg/L/16 h	The available data does not suggest any toxicity to aquatic organisms or harmful effects to the aquatic environment. <u>Fish toxicity:</u> P. promelas; LC ₅₀ =4480 mg/L/96h <u>Invertebrate toxicity:</u> Daphnia magna, EC ₅₀ =3642 mg/L/48h <u>Algal toxicity:</u> Sc. quadricauda; IC ₅ ≥ 1800 mg/L/8 d <u>Bacterial toxicity:</u> activated sludge EC ₅₀ >1000 mg/L/3 h
<u>PERSISTENCE AND DEGRADABILITY</u>	The methyl ethyl ketone used in this mixture is relatively volatile and will evaporate from water and soil in the matter of a few days. It is readily biodegradable. Methyl ethyl ketone reduction: DOC >70%, BOD >60 %;BOD ₅ to COD >50%.	Readily biodegradable; 95%/21 d. (Modified OECD screening test). TOD = 2.40 g/g; COD (96% from TOD BOD 49% from TOD/5 d	Readily biodegradable; 75%/20 d. (Modified OECD screening test). TOD = 2.40 g/g; COD = 2.23 g/g BOD ₅ = 73% of COD
<u>MOBILITY</u>	No bioaccumulation is expected. log p (o/w) = 0.29	Log p(o/w)= 0.05 (exp). No bioaccumulation is expected since log p(o/w) is <1.	Log p (o/w) = 0.25 (exp). No bioaccumulation is expected since log p (o/w) is <1.

13. DISPOSAL CONSIDERATIONS

This product is a hazardous waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is counselled to seek advice from the local authority before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

<u>DISPOSAL</u>	If possible recycle, otherwise incinerate in a suitable facility. Empty containers should be drained thoroughly and then vented in a safe well ventilated place, away from heat or ignition sources. Send drums to a drum washing and recycling facility.
<u>SPECIAL PRECAUTIONS</u>	Do not puncture, cut or weld a drum that has not been cleaned – it is an explosion hazard. The empty, uncleaned drums still fall under the auspices of the ADG Code and must be transported accordingly.

When large amounts of this product need to be disposed of, the services of a registered, professional waste disposal organisation is highly recommended.

DATE OF ISSUE: September 2005

REPLACES: None

14. TRANSPORT INFORMATION

This product has been classified as Dangerous Goods. It must be transported, labelled and the transport vehicle placarded in accordance with the ADG Code requirements.

TRANSPORT INFORMATION	ADG	IMDG/IMO	ICAO/IATA
UN Number	1210	1210	1210
Proper Shipping Name	PRINTING INK, flammable		
Class	3	3	3
Subsidiary Risk	None allocated	None allocated	None allocated
Packing Group	II	II	II
Hazchem Code	3[Y]E	Not applicable	Not applicable

15. REGULATORY INFORMATION

AICS All ingredients are listed in AICS

SUSDP This product is a Schedule 5 poison. A license to make, store or sell a Schedule 5 poison is required.

16. OTHER INFORMATION

MSDS **Issue Number:** 01
Date of Issue: September 2005
Replaces Issue: None
Changes made to the previous issue: Not applicable

ACRONYMS **ADG Code:** Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS: Australian Inventory of Chemical Substances.
CAS Number: Chemical Abstracts Service Registry Number
DG: Dangerous Goods
Hazchem Code: An emergency action code of numbers and letters, which gives information to emergency services.
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
N.O.S.: Not otherwise specified.
NOHSC: National Health and Safety Commission.
SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons.
UN Number: United Nations Number

The health and safety information contained in this MSDS is believed to be true and correct. However because Matthews Australasia Pty Ltd no control over the method of use of this product, all statements or suggestions are made without warranty, expressed or implied, regarding the reliability of the information, or the hazards resulting from the use of the material. Every user should consider the information given in this MSDS in the context of how this product will be used in the user's workplace, including the effects of other products on the premises.

DATE OF ISSUE: September 2005

REPLACES: None

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<u>SUPPLIER</u>	Matthews Australasia Pty Ltd ABN 15 169 124 398 Address: 35 Laser Drive , Rowville, Victoria 3178, AUSTRALIA Telephone: +61 3 9763 0533 Emergency Telephone No: +61 3 9763 0533 (Monday to Friday 8:30 am – 5:00 pm.)
<u>PRODUCT</u>	Product Name: SCP-700C Cleaner Other Names: Methyl ethyl ketone/isopropanol mixture. FLAMMABLE LIQUID N.O.S. Manufacturer's Code: I0470
<u>USE</u>	Cleaning printing machinery. Applied manually with a cloth or brush.

2. HAZARDS IDENTIFICATION

<u>HAZARD CLASSIFICATION</u>	NOHSC Classification: Hazardous Substance ADG Classification: Dangerous Goods, Class 3 SUSDP Classification: Schedule 5 poison
<u>RISK PHRASES</u>	R36 Irritating to eyes. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
<u>SAFETY PHRASES</u>	S2 Keep out of reach of children. S7 Keep container tightly closed. S9 Keep container in a well-ventilated place. S16 Keep away from ignition sources - No smoking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>MIXTURE</u>	CHEMICAL ENTITY	CAS No	PROPORTION
	Methyl ethyl ketone	78-93-3	> 60%
	Isopropanol	67-63-0	< 10%

4. FIRST AID MEASURES

<u>FIRST AID</u>	Swallowed: For advice, call a Poisons Information Centre or a doctor at once. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below the hips to prevent aspiration into lungs. Eyes: If in eye, irrigate immediately with copious amounts of water for 15 minutes with eyelids held open. Seek medical advice immediately.

DATE OF ISSUE: September 2005

REPLACES: None

Skin: Wash affected areas with soap and copious quantities of water. Remove contaminated clothing and footwear. Decontaminate footwear and wash clothing before reuse. Seek medical advice if skin irritation develops.

Inhaled: Remove victim to fresh air. Seek medical advice immediately if adverse symptoms such as respiratory irritation, dizziness or unconsciousness develop. If breathing has stopped apply artificial respiration.

First Aid Facilities: Have eyewashes and safety showers available in the work area.

ADVICE TO
DOCTOR

Treat symptomatically. Look for signs of aspiration into lungs. The substance may cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

EXTINGUISHING
MEDIA

Water fog, alcohol foam, dry chemical, carbon dioxide.

HAZARDOUS
COMBUSTION
PRODUCTS

Smoke, carbon monoxide, carbon dioxide.

PRECAUTIONS FOR
FIRE FIGHTERS

This product is highly flammable. Keep containers cool with water spray to prevent rupture of container. Wear full protective equipment including self-contained breathing apparatus. The vapour of this product is heavier than air and will travel considerable distances. An ignition source within its range may explosively ignite the vapour and flash back along the vapour trail.

HAZCHEM CODE

2[Y]

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY
PROCEDURES

This product is a highly flammable liquid. Isolate hazard area and deny entry to unauthorised personnel. Remove all sources of ignition. Stop leak if it can be done without personal risk. Avoid breathing vapours. Ventilate enclosed area.

CLEAN UP
PROCEDURE

Small Spills: Wear safety goggles or face shield and butyl rubber gloves and wipe up spill with paper or rags. Allow product to evaporate outdoors or in a well ventilated area and dispose mopping-up medium as general industrial waste.

Large spills: Notify fire brigade. Wearing full personal protective equipment, including self-contained breathing apparatus, contain spill with sand, earth or Vermiculite. Prevent run-off into drains or waterways. Bail or pump, using flameproof equipment, any free liquid into sealable metal containers. Collect absorbed material and also place it in into sealable metal drums. Seal containers and label them in accordance with the Hazardous Substances Labelling Code.

DATE OF ISSUE: September 2005

REPLACES: None

7. HANDLING AND STORAGE**PRECAUTION FOR
SAFE HANDLING**

Practice sound industrial hygiene. Wear butyl rubber gloves, safety goggles and clothing that will minimise skin contact. Wash hands before work breaks. Remove contaminated clothing and protective equipment before entering eating areas. Keep away from ignition sources and guard against static electricity discharges. Avoid run-off into drains or waterways.

STORAGE

Store in a cool dry place and out of direct sunlight. Store in a manner that will minimize fire or explosion risks. Guard against static electricity accumulation or discharge. Store in a bonded area, and if in excess of the regulatory quantity, in a flammable goods store. Do not store with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE**

An exposure limit for this product has not been set. The exposure standards to [NOHSC:1008(2004)] for the major components are:

Exposure standard

Methyl ethyl ketone
Isopropanol

TWA

445 mg/m²
983 mg/m²

**BIOLOGICAL
LIMIT VALUES**

BEI for MEK = 2 mg/L (ACGIH); Isopropyl alcohol = 50 mg/L (BAT).

**ENGINEERING
CONTROLS**

Use only in well ventilated areas and with local exhaust ventilation. Maintain air concentrations below exposure standards.

**PERSONAL
PROTECTION
EQUIPMENT**

Under condition of ordinary use, wear safety goggles, butyl rubber gloves long sleeved overalls and sturdy work boots. In case of a large spills or when working in confined areas, use a full-face respirator fitted with suitable organic vapour canister (for selection guidance see AS 1715), impervious long sleeved overalls, long sleeved butyl rubber gloves and butyl rubber gumboots.

9. PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL
DESCRIPTION &
PROPERTIES**

Appearance: A clear, thin colourless liquid

Odour: Characteristic ketonic odour

pH: Not applicable

Vapour Pressure: 105 hPa at 20°C (MEK).

Vapour Density: >1 (Air=1)

Boiling Point: ca. 80°C (MEK).

Melting Point: -86°C (MEK).

Solubility in Water: 26.3% (MEK)

Specific Gravity: ca. 0.802

Flash Point: -4°C. (Closed cup) (MEK)

Flammability limits (MEK): L.E.L. = 1.8 % (by vol.); U.E.L. = 11.5 % (by vol.)

Ignition temperature: 514°C.

DATE OF ISSUE: September 2005

REPLACES: None

OTHER No data.
PROPERTIES

10. STABILITY AND REACTIVITY

CHEMICAL This material is stable under normal ambient and anticipated storage and
STABILITY handling conditions.

CONDITIONS Avoid excessive temperatures, ignition sources and contact with incompatible
TO AVOID materials.

INCOMPATIBLE Strong mineral acids, hydrogen peroxides, strong alkalies, oxidizing agents
MATERIALS and chloroform.

HAZARDOUS No data
DECOMPOSITION
PRODUCTS

HAZARDOUS Hazardous polymerization will not occur.
REACTIONS

11. TOXICOLOGICAL INFORMATION

This mixture has not been tested as a whole for its health effects. The toxicology data and health effects given below are those of the major components, of this preparation.

ACUTE **Swallowed:** Ingestion may cause headaches, nausea, vomiting and adverse
HEALTH effects to the central nervous system due to the presence of methyl ethyl ketone
EFFECTS Large doses may result in coma and death. May pose a risk of aspiration, which
can lead to chemical pneumonitis. Toxicity by this route is expected to be low.
LD₅₀ (rat) for methyl ethyl ketone is 1.87-6.5 g/kg; for isopropanol it is
5.05g/kg.

Eyes: Severe irritant due to MEK and isopropanol. May cause reddening of the
eye and lachrymation.

Skin: Slight skin irritant due to the presence of MEK and isopropanol. May
cause some reddening, drying and rough chapped skin. Is absorbed through the
skin. LD₅₀ (rabbit) for MEK is >2000 mg/kg; isopropanol it is 12.8 g/kg.

Inhaled: Irritant to the respiratory system. Inhalation of high vapour or mist
concentrations may lead to dizziness, nausea and loss of consciousness and
continued inhalation may lead to death. LC₅₀ (rat) for MEK is 20 mg/L/4h for
isopropanol it is 46.5 mg/L/4h.

DATE OF ISSUE: September 2005

REPLACES: None

CHRONIC
HEALTH
EFFECTS

Prolonged or repeated skin contact with MEK may defat the skin and could lead to irritant contact dermatitis. Liver and kidney damage have been reported for MEK in test animals, particularly at high exposure levels. Animal studies suggest that MEK may potentiate the toxic action of some other compounds such as n-hexane. None of the ingredients in this mixture is a sensitizer, mutagenic or carcinogenic.

DELAYED
EFFECTS

No data.

12. ECOLOGICAL INFORMATION

The ecological effect of the mixture as a whole has not been tested. The ecological information of the two major components is given below:

	Methyl ethyl ketone	Isopropanol
<u>ECOTOXICITY</u>	Methyl ethyl ketone is expected have little long term effect on the aquatic environment and has a low acute toxicity to aquatic organisms. <u>Fish toxicity:</u> P. promelas; LC₅₀ = 3220 mg/L/96 h <u>Invertebrate toxicity:</u> Daphnia magna; EC₅₀ = 5090 mg/L/48 h. <u>Algal toxicity:</u> Sc. quadricauda; IC₅ = ≥ 4300 mg/L/7 d. <u>Bacterial toxicity:</u> Ps. putida EC₅ = 1150 mg/L/16 h.	The available data does not suggest any toxicity to aquatic organisms or harmful effects to the aquatic environment. <u>Fish toxicity:</u> P. promelas; LC₅₀= 9640 mg/L/96h <u>Invertebrate toxicity:</u> Daphnia magna, EC₅₀=13300 mg/L/48h <u>Algal toxicity:</u> Sc. quadricauda; IC₅ ≥ 1800 mg/L/8 d <u>Bacterial toxicity:</u> Ps. putida EC₅ = 1050 mg/L/16 h
<u>PERSISTENCE AND DEGRADABILITY</u>	The methyl ethyl ketone used in this mixture is relatively volatile and will evaporate from water and soil in the matter of a few days. It is readily biodegradable. Methyl ethyl ketone reduction: DOC >70%, BOD >60 %;BOD₅ to COD >50%.	Readily biodegradable; 95%/21 d. (Modified OECD screening test). TOD= 2.40 g/g; COD (96% from TOD BOD 49% from TOD/5 d
<u>MOBILITY</u>	No bioaccumulation is expected. Methyl ethyl ketone: log p (o/w) = 0.29	Log p(o/w)= 0.05 (exp). No bioaccumulation is expected since log p(o/w) is <1.

13. DISPOSAL CONSIDERATIONS

This product is a hazardous waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is counselled to seek advice from the local authority before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

DATE OF ISSUE: September 2005

REPLACES: None

DISPOSAL

If possible recycle, otherwise incinerate in a suitable facility.

Empty containers should be drained thoroughly and then vented in a safe place away, from heat or ignition sources. Send drums to a drum washing and recycling facility.

SPECIAL**PRECAUTIONS**

Do not puncture, cut or weld a drum that has not been cleaned – it is an explosion hazard. The empty, uncleaned drums still fall under the auspices of the ADG Code and must be transported accordingly.

When large amounts of this product need to be disposed of, the services of a registered, professional waste disposal organisation is highly recommended.

14. TRANSPORT INFORMATION

This product has been classified as Dangerous Goods. It must be transported, labelled and the transport vehicle placarded in accordance with the ADG Code requirements.

TRANSPORT INFORMATION	ADG	IMDG/IMO	ICAO/IATA
UN Number	1993	1993	1993
Proper Shipping Name	FLAMMABLE LIQUID N.O.S. (contains: methyl ethyl ketone, isopropyl alcohol)		
Class	3	3	3
Subsidiary Risk	None allocated	None allocated	None allocated
Packing Group	II	II	II
Hazchem Code	2[Y]	Not applicable	Not applicable

15. REGULATORY INFORMATION**AICS**

All ingredients are listed in AICS

SUSDP

This product is a Schedule 5 poison. A license to make, store or sell a Schedule 5 poison is required.

16. OTHER INFORMATION**MSDS****Issue Number:** 01**Date of Issue:** September 2005**Replaces Issue:** None**Changes made to the previous issue:** Not applicable

DATE OF ISSUE: September 2005

REPLACES: None

ACRONYMS

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail

AICS: Australian Inventory of Chemical Substances.

CAS Number: Chemical Abstracts Service Registry Number

DG: Dangerous Goods

Hazchem Code: An emergency action code of numbers and letters, which gives information to emergency services.

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

N.O.S.: Not otherwise specified.

NOHSC: National Health and Safety Commission.

SUDP: Standard for the Uniform Scheduling of Drugs and Poisons.

UN Number: United Nations Number

The health and safety information contained in this MSDS is believed to be true and correct. However because Matthews Australasia Pty Ltd no control over the method of use of this product, all statements or suggestions are made without warranty, expressed or implied, regarding the reliability of the information, or the hazards resulting from the use of the material. Every user should consider the information given in this MSDS in the context of how this product will be used in the user's workplace, including the effects of other products on the premises.

Safety Data Sheet**011383/21**

Date of issue: September 13, 2005

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1. Identification of the substance/preparation and the company*Velcorin**Application:
Food additive

LANXESS Deutschland GmbH, TS-HSEQ DM&I

51369 Leverkusen, Germany, Telephone: +49 214 30 65109

In case of emergency:

Germany: +49 214 30 99300 (Sicherheitszentrale Bayer)

Australia: +61 418 524 573 (Victus International Pty Ltd)

126 Bertie St Port Melbourne Vic 3207

***2. Composition/information on ingredients**

dimethyldicarbonate

CAS No.: 4525-33-1

Index No.: --

hazard symbol: T

EINECS No.: 224-859-8

R-phrases: 22-23-34

Hazardous Substance. Dangerous Goods

3. Hazards identification

Harmful if swallowed. Toxic by inhalation. Causes burns.

4. First-aid measures

GENERAL INFORMATION: Bring accident victim out of danger zone. Also heed the risks to your own person. Take off soiled or soaked clothing immediately and place in water.

FOLLOWING SKIN CONTACT: Wash skin immediately with plenty of water and soap. If skin reactions occur, contact a physician.

FOLLOWING EYE CONTACT: Open the eyelids and rinse for an adequate length of time with water. Consult an eye specialist immediately.

UPON INHALATION: Bring casualties into the fresh air, if necessary making them inhale oxygen; keep the patient's body warm and protect it from heat loss. If necessary, initiate artificial respiration. Medical treatment is required as soon as possible.

UPON SWALLOWING: Make the patient drink a large quantity of water, if possible with an addition of activated carbon, immediately, and then at frequent intervals. Rinse the mouth with plenty of water. (Do not administer anything to the patient if he is unconscious or suffering from cramp.) In any case consult a physician.

INFORMATION FOR THE PHYSICIAN:

Additional information:

Toxicological information : see section (11)

product information : see section (16)

Therapeutic measures: Symptomatic treatment. Induce vomiting after a contact time of 15-30 minutes. Cortisone spray should be inhaled immediately after inhalation of the substance. In serious cases, the patient should be kept under observation for 24 hours.

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Velcorin**5. Fire-fighting measures**

Extinguishing media: CO₂, foam, dry powder; in cases of larger fires, water spray should be used. Never use direct water jet.

Firemen have to wear self-contained breathing apparatus. Fight fire in early stages if safe to do so. Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.

6. Accidental release measures

Make sure you are wearing the necessary personal safety gear before you start work.

Cover with damp, fluid-binding material (for example, sand, sawdust, chemical binder based on calcium silicate hydrate). After a sufficiently long contact time take up and transfer to a waste container; do not seal container (due to CO₂ generation). Remove product residues immediately with plenty of cold water. Do not flush them into the gutter with hot water! (Leads to high Velcorin vapour concentrations due to evaporation.) Ensure adequate ventilation/exhaust ventilation. Keep unauthorized persons away. Before resuming work, make sure there is no more Velcorin vapour in the air (check with Velcorin indicator paper).

***7. Handling and storage**

The application of Velcorin according to technical prescription is to be done exclusively by special dosing pumps.

Store tightly sealed container in a dry and well-ventilated place. Permanent avoid product temperatures above 30 °C and below 20 °C. Velcorin may crystallise at temperatures below the storage temperature. To make the contents liquid again, slowly thaw out the container at 20–30°C Do not refill the product into another container as it is susceptible to hydrolysis.

Never allow a Velcorin container to be subjected to an open flame or to direct heat.

Precautions should generally be taken against electrostatic charges according to the equipment used and the way the product is handled and packaged. Avoid sources of ignition.

VCI storage class: 3B

Storage period 12 months.

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Velcorin***8. Exposure controls/Personal protection**

Respiratory protection: gas filter, e.g. DIN 3181 A, when Velcorin is present in the air, e.g. as a result of disturbances, leakages or breaking glass.

At concentrations above 10 ppm and at unventilated work-places, breathing apparatus should be worn.

Eye protection: closely fitting goggles.

Hand protection: Wear suitable protective gloves (e.g. non-reuseable plastic gloves). After contamination with product change the gloves immediately and remove them according to relevant national and local regulations

Careful attention to industrial and personal hygiene is essential. Avoid contact with skin and eyes and the inhalation of vapour. If there is any chance that contamination has occurred, take immediate action as follows: wash affected skin with soap and water, rinse eyes with water, use breathing apparatus to protect against irritation of mucous membranes/conjunctiva, and move to fresh air.

The concentration of Velcorin in the surrounding air must not be allowed to exceed 0,04 ppm, en momentarily. The odour of Velcorin is not strong enough to act as warning against inhalation exposure.

In view of the irritating potential, persons with a tendency to asthmatic or other respiratory tract disorders must not be allowed to work with Velcorin. (See also Chapter 11)

Wash hands before breaks and at end of work. Keep working clothes separate.

9. Physical and chemical properties

tested in accordance with

Form:	liquid
Colour:	colourless
Odour:	fruity, like ester at low concentrations slightly pungent at higher concentrations
Solidifying point:	17 °C
Boiling point:	approx. 172 °C (CO ₂ formation formation)
Density:	1,25 g/cm ³ at 20 °C
Vapour pressure:	0,7 mbar at 20 °C
Viscosity:	approx. 2,1 mPa·s
Solubility in water:	approx. 35 g/l at 20 °C (decomposition)
Flash point:	approx. 85 °C DIN 51758/DIN 53213 owing to CO ₂ formation not accurately determinable
Ignition temperature:	approx. 465 °C DIN 51794
Explosive limits:	lower: 3 % by vol. upper: 29,9 % by vol.

10. Stability and reactivity

Thermal decomposition: gradual decomposition at temperatures above 70 °C under formation of carbon dioxide

Hazardous decomposition products: No hazardous decomposition products when stored and handled correctly. Formation of carbon monoxide, carbon dioxide and other toxic gases in the event of fire or during thermal decomposition.

Hazardous reactions: No hazardous reaction when used as directed.

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Velcorin

*11. Toxicological information

Acute toxicity:

LD₅₀ oral, rat (male): 497 mg/kg

LD₅₀ oral, rat (female): 335 mg/kg

LD₅₀ dermal, rat: more than 1250 mg/kg. The dosage of 1250 mg/kg caused no symptoms.

LC₅₀ inhalation, rat: 711 mg/m³ air, 4 h of exposure

Subchronic inhalation toxicity:

In a sub-chronic inhalation study on rats (duration 90 days, 6 hours per day, 5 days per week) an NOAEL (No Observed Adverse Effect Level) of 0.23 mg/m³ (0.04 ppm) was determined.

Irritation of the upper respiratory tract has been observed after inhalation of large quantities of Velcorin.

Irritation of the skin/rabbit (exposure 1-2 h): severely irritant, corrosive

Irritation of the eyes/rabbit: severely irritant, corrosive

Special properties/effects: (At human)

Product causes severe irritation to skin, eyes and mucous membranes. Even short-term inhalation exposure can result in irritation of the nose, throat and respiratory tract. Pre-disposed persons may show asthmatic reactions. Delayed symptoms (after 1-5 h) may include unwellness, headache, severe coughing and skin irritation. Persons with a predisposition may react asthmatically.

The high vapour pressure of the product may lead to higher concentrations in the ambient air where the workplace is insufficiently ventilated and the product is spread over a wide area (e.g. following accidents or improper handling). Inhalation of such concentrations over an extended period risks damage to the lungs, which can have lethal consequences in extreme cases.

*12. Ecological information

Eliminability from water:

degradation	!	evaluation	!	method of test	!	method of analysis
-----	!	-----	!	-----	!	-----
above 90 %	!	good degradability	!	closed bottle test	!	BOD-
	!		!		!	determination

In contact with water, complete decomposition to methanol and CO₂ in few hours.

COD value: 713 mg/g

BOD₅ value: 500 mg/g

Fish toxicity: LC₅₀: >50-<100 mg/l

Test species: Leuciscus idus

Duration of test: 48 h

Acute bacterial toxicity:

Incipient inhibition of cell multiplication in *Pseudomonas putida* at 40 mg/l (test according to G. BRINGMANN and R. KÜHN).

(to be continued)

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Velcorin***12. Ecological information** (Continuation)

Water pollution class (WGK): 1 - slightly hazardous to water

WGK = Classification in accordance with the German Water Resources Act
(in accordance with Annex 3 to the Directive on Water-Hazardous Substances)

The product does not contain any organically bonded halogens which can lead to AOX values in the waste water.

***13. Disposal considerations**

Examine possibilities for re-utilization. Package product wastes. Close and label the waste receptacles and, likewise, any uncleaned empty containers. Dispose of them at a suitable waste incineration plant in accordance with the official regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues.

Disposal of emptied containers:

Shut off the empty Velcorin container from the automatic metering unit.

Recyclable 3 kg and 25 kg empty containers should be returned, tightly sealed and unrinsed, to the supplier.

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste Catalogue.

***14. Transport information**

GGVSE: 6.1 (8) UN: 2927 PG: II

RID/ADR: 6.1 (8) UN: 2927 PG: II

Warning sign: Hazard no. 68 UN No.: 2927

ADNR: 6.1 (8) UN: 2927 PG: II

GGVSee/IMDG Code: 6.1 (8) UN: 2927 PG: II MPO: NO

ICAO-TI/IATA-DGR: 6.1 (8) UN: 2927 PG: II

Declaration for land shipment: GIFTIGER ORGANISCHER FLUESSIGER STOFF,
AETZEND, N.A.G.

(DIMETHYLDICARBONAT)

Declaration for sea shipment: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

(DIMETHYLDICARBONATE)

Declaration for shipment by air: TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

(DIMETHYLDICARBONATE)

Limited quantity regulations applicable in accordance with
chapter 3.4 RID/ADR in compliance with threshold value

Other information:

Toxic. Corrosive. Combustible, flash point +85 °C. Avoid temperatures below +20 °C. Avoid heat above +30 °C. Keep separated from foodstuffs.

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Velcorin***15. Regulatory information**

Labelling in accordance with the EEC directives:

Symbol: T, hazard description: toxic
dimethyldicarbonate

R 22: Harmful if swallowed.

R 23: Toxic by inhalation.

R 34: Causes burns.

S 18: Handle and open container with care.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 28: After contact with skin, wash immediately with plenty of water and soap.

S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S 38: In case of insufficient ventilation, wear suitable respiratory equipment.

S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Major accidents regulations:

The product has the hazard characteristic/property " Toxic " in accordance with Appendix I No. 2.

VbF (German Regulation on Flammable Liquids): Class A III

The recommendations given in the leaflets of the "Berufsgenossenschaft der Chemischen Industrie" (Employers' Liability Insurance Association for the German Chemical Industry) entitled M 004 "Reizende Stoffe - Ätzende Stoffe" (irritant - caustic substances) and M 050 "Umgang mit gesundheitsgefährlichen Stoffen" (regulations on the handling of substances hazardous to health) should be followed.

***16. Other information**Text of all R phrases referred to in sections 2 and 3:
see section 15

Additional information:

Velcorin-product information package, including the following chapters

Advice on application

DMDC metering units operating instructions, e.g. LEWA DA 9.xx automatic metering unit or R&M E.M.S. Burdomat II

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.

Material Safety Data Sheet

Date Of Issue: 14/02/2006

STATEMENT OF HAZARDOUS NATURE: Classified as Hazardous according to criteria of Worksafe Australia.

COMPANY DETAILS

Company: Sensient Technologies Australia Pty Ltd
Address: 30 - 40 Kirkham Road West
Keysborough, Victoria 3173
Australia
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

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IDENTIFICATION

Product Name: GRAPEFRUIT FLAVOUR
Other Names: None allocated
Product Number: XF2003
UN Number: 1197
Dangerous Goods Class: 3
HazchemCode 3(Y)E
Poisons Schedule No.: None allocated
Use: Concentrated food ingredient. Intended for manufacturing purposes only.

Physical Description/Properties

Appearance: Clear colourless to straw coloured liquid.
Boiling Point /Melting Point (oC): Not Found
Vapour Pressure: Not Found
Specific Gravity: 0.895
Flash Point (oC) 22
Flammability Limits: Not Found
Solubility in Water (g/l): Not determined

Other Properties:

Ingredients

The identity of the individual components of this product is propriety information and is considered a trade secret. For further information contact the manufacturer.

Chemical Name: **CAS Number:** **Proportion:**

HEALTH HAZARD INFORMATION**Health Effects***Acute:*

- Swallowed:** Swallowing can result in nausea, vomiting, shortness of breath, drowsiness, dizziness and loss of consciousness.
- Eye:** Possible eye irritation
- Inhaled:** Possible respiratory tract irritation. Prolonged high concentration exposure may result in fatigue, headache, tremors.
- Skin:** Possible skin irritation

Chronic:

None known

First Aid

- Swallowed:** Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
- Eye:** Flush with plenty of water for at least 10 minutes and seek medical advice.
- Skin:** Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
- Inhaled:** Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
- Advice To Doctor** Treat symptomatically

PRECAUTIONS FOR USE

- Exposure Standards:** None allocated
- Engineering Controls:** Use only in well ventilated area
- Personal Protection:** Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.
- Flammability:** Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

SAFE HANDLING INFORMATION

- Storage and Transport:** Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.
- Spills and Disposal:** Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.
- Fire/Explosion Hazard:** For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

OTHER INFORMATION:

- Disclaimer:** The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

- CONTACT POINT:** Quality Assurance Manager



Material Safety Data Sheet

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Infosafe No.	KERO5	Issue Date : June 2007	ISSUED by KERRYING

Product Name : **CAPSECINE NATURAL FLAVOUR**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	CAPSECINE NATURAL FLAVOUR
Product Code	08.1662
Company Name	Kerry Ingredients
Address	Cnr Holker Street & Ave of Africa Newington NSW 2127 Australia
Emergency Tel.	as stated below
Telephone/Fax Number	Tel: 02.9741.4422 Fax: 02.9741.4477
Emergency Contact Name	Monday to Friday 9.00am -5.00pm Keith Booker QA Manager (Dry Products) 917 Lytton Road Murarrie Queensland 4172 Ph: 07 9893 9700 Fax: 07 3893 9777 After Hours: 07 3849 4734 Garry Ball Technical Manager (Liquid Flavours, Colours, Fondants Marinades, Syrups, Liquid Products) 23-29 Pinnacle Road Altona North Victoria 3025 Ph: 03 8369 1200 Fax: 03 8369 1211 After Hours: 03 9306 2211
Recommended Use	Flavouring.

2. HAZARDS IDENTIFICATION

Hazard Classification	HAZARDOUS SUBSTANCE. DANGEROUS GOODS. Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Ethanol	64-17-5	79-99 %

4. FIRST AID MEASURES

Inhalation	Remove victim to fresh air. Seek medical attention if conditions persists.
Ingestion	Give plenty of water or milk to drink and induce vomiting. Seek medical attention if condition develops or persists.
Skin	Wash with soap and water. Seek medical attention if irritation develops or persists.
Eye	Rinse with plenty of water for 15 minutes holding eyelids open. Seek medical attention if irritation develops or persists.
First Aid Facilities	Eye wash, deluge shower and normal wash room facilities.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use fire extinguishing agents applicable for surrounding fire.
Specific Methods	Fire fighters should wear self contained breathing apparatus (S.C.B.A.) and full protective clothing in fire situations.
Specific Hazards	Will ignite on exposure to flame.Can be violently explosive under certain conditions.
Hazchem Code	2[S]E



Material Safety Data Sheet

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Infosafe No.	KERO5	Issue Date : June 2007	ISSUED by KERRYING

Product Name : **CAPSECINE NATURAL FLAVOUR**

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	Sweep up and place in a normal industrial waste bin. Remove sources of ignition. Absorb free material on sawdust, sand or other absorbent material. Small spills-Dispose of in waste containers. Large spills-Dispose of in approved landfills.

7. HANDLING AND STORAGE

Conditions for Safe Storage	Store in a cool, dry area away from direct sunlight. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Other Exposure Information	No standards have been adopted for this product by Worksafe Australia.
Engineering Controls	Engineering Controls: Ensure ignition devices are not activated. Use with adequate natural ventilation.
Personal Protective Equipment	Respiratory: In confined spaces where the build up of airborne particulates is likely, a P1 filter halfpiece respirator with replaceable filter or disposable facepiece as specified by AS/NZ 1715 and AS/NZS 1716 is recommended. Eyes: Chemical goggles or safety glasses recommended. Gloves: Impervious rubber gloves recommended. Protective clothing required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Appearance	A pale brown coloured liquid.
Boiling Point	Not available
Specific Gravity	0.80 @ 20°C
Vapour Pressure	Not available
Flash Point	<22°C
Flammability	Flammable, Keep away from heat & source of ignition.
Flammable Limits - Lower	None allocated

10. STABILITY AND REACTIVITY

11. TOXICOLOGICAL INFORMATION

Inhalation	No long term effects.
Ingestion	If swallowed may cause mild gastric irritation.
Skin	Mildly irritant.
Eye	Irritant.
Chronic Effects	There have been no reports in the literature of health effects in workers arising from long term exposure to this substance. No comprehensive human and animal studies have been conducted.

12. ECOLOGICAL INFORMATION

Environ. Protection	Not expected to be harmful to the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose of in a normal industrial waste bin.

14. TRANSPORT INFORMATION

Transport Information	Classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
U.N. Number	1197



Material Safety Data Sheet

Page: 3 of 3

Infosafe No.	KERO5	Issue Date : June 2007	ISSUED by KERRYING

Product Name : **CAPSECINE NATURAL FLAVOUR**

Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	2[S]E
Packaging Method	3.8.3RT1
Packing Group	11
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Poisons Schedule	Not Scheduled
Packaging & Labelling	No special packaging and labelling is required.

16. OTHER INFORMATION

Contact Person/Point	Monday to Friday 9.00am -5.00pm Keith Booker QA Manager (Dry Products) 917 Lytton Road Murarrie, Queensland 4172 Ph: 07 9893 9700 Fax: 07 3893 9777 After Hours: 07 3849 4734 Garry Ball Technical Manager (Liquid Flavours, Colours, Fondants Marinades, Syrups, Liquid Products) 23-29 Pinnacle Road Altona North Victoria 3025 Ph: 03 8369 1200 Fax: 03 8369 1211 After Hours: 03 9306 2211 ...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No.	TPM73	Issue Date : September 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR**

Classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	PASSIONFRUIT FLAVOUR
Product Code	000108
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.
Other Information	

4. FIRST AID MEASURES

Material Safety Data Sheet

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Infosafe No.	TPM73	Issue Date : September 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR**

Classified as hazardous

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite).
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented.
Other Information	Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

Material Safety Data Sheet

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Infosafe No.	TPM73	Issue Date : September 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR**

Classified as hazardous

7. HANDLING AND STORAGE

Handling	Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.
Storage Regulations	Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.
Storage	Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.
Other Information	Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection	A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.
Eye Protection	Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.
Hand Protection	PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.
Body Protection	Overalls or similar protective apparel. PVC apron.
Eng. Controls	Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.
Hygiene Measures	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid.
Odour	Characteristic of passionfruit.
Specific Gravity (H2O=1)	0.84 +/- 0.02 (at 20°C)
Flash Point	<23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]
Other Information	Refractive index of this material is 1.369 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

Stability	Stable.
Hazardous	Stable at standard temperature and pressure and under conditions of normal use.
Polymerization	Will not occur.

Material Safety Data Sheet

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Infosafe No.	TPM73	Issue Date : September 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR**

Classified as hazardous

Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

Material Safety Data Sheet

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Infosafe No.	TPM73	Issue Date : September 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR**

Classified as hazardous

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No. TPMBZ Issue Date : July 2005 ISSUED by THEPRODU

Product Name : PEAR FLAVOUR

Classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name PEAR FLAVOUR
Product Code 000116
Product Use This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address 50-60 Popes Road, Keysborough Melbourne
VIC 3173 Australia
Telephone/Telex Number Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type Flavour
Emergency Contact Address 50-60 Popes Road, Keysborough
Victoria, 3173, Australia
(24 hour a day available) +61411076367
Product Safety Guide This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Information on Composition No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Ethanol	64-17-5	40-60 %	F	R11

Substance Formal Name EXTRACTS, FLAVOURING, LIQUID
CAS Number Not applicable

3. HAZARDS IDENTIFICATION

Route(s) of Entry Highly flammable.
Inhalation of vapour
Skin contact/ absorption
Eye contact
Ingestion
Signs and Symptoms of Exposure No specific data available.
Medical Conditions Generally Aggravated by Exposure No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards The vapour is heavier than air, spreads along the ground and distant ignition is possible.
This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Material Safety Data Sheet

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Infosafe No.	TPMBZ	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PEAR FLAVOUR**

Classified as hazardous

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

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Infosafe No.	TPMBZ	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PEAR FLAVOUR**

Classified as hazardous

Other Information Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.

Storage Regulations Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

Storage Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.

Other Information Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.

Eye Protection Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Hand Protection PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.

Body Protection Overalls or similar protective apparel. PVC apron.

Eng. Controls Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.

Hygiene Measures Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless liquid.

Odour Characteristic of pear.

Specific Gravity (H2O=1) 0.91 +/- 0.02 (at 20°C)

Flash Point <23°C [Closed Cup] (ref AS2106-2108)

Flammable Limits LEL 3.3% Ethanol

Flammable Limits UEL 19% Ethanol

Other Information Refractive index of this material is 1.363 +/- 0.005 (at 20°C)

Material Safety Data Sheet

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Infosafe No. TPMBZ Issue Date : July 2005 ISSUED by THEPRODU

Product Name : PEAR FLAVOUR

Classified as hazardous

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous	Will not occur.
Polymerization	
Materials to Avoid	Strong oxidising agents.
Hazardous	Under normal conditions this product is not expected to produce hazardous
Decomposition	decomposition products.
Products	
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology	This material has not been subjected to toxicological testing.
Information	
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

Material Safety Data Sheet

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Infosafe No.	TPMBZ	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PEAR FLAVOUR**

Classified as hazardous

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No. TPMC2 Issue Date : July 2005 ISSUED by THEPRODU

Product Name : PINEAPPLE FLAVOUR

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name PINEAPPLE FLAVOUR
Product Code 000119
Product Use This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address 50-60 Popes Road, Keysborough Melbourne
VIC 3173 Australia
Telephone/Telex Number Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type Flavour
Emergency Contact Address 50-60 Popes Road, Keysborough
Victoria, 3173, Australia
(24 hour a day available) +61411076367
Product Safety Guide This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Information on Composition No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Ethanol	64-17-5	60-100 %	F	R11

Substance Formal Name EXTRACTS, FLAVOURING, LIQUID
CAS Number Not applicable

3. HAZARDS IDENTIFICATION

Route(s) of Entry Highly flammable.
Inhalation of vapour
Skin contact/ absorption
Eye contact
Ingestion
Signs and Symptoms of Exposure No specific data available.
Medical Conditions Generally Aggravated by Exposure No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards This product is considered to be FLAMMABLE.
Other Information

4. FIRST AID MEASURES

Inhalation Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.
Ingestion DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.

Material Safety Data Sheet

Page: 2 of 5

Infosafe No.	TPMC2	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Shut off leaks, if possible without personal risk. Remove all possible sources of ignition in the surrounding area
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

7. HANDLING AND STORAGE

Handling	Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used.
Storage Regulations	Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.
Storage	Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.
Other Information	Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection	A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.
Eye Protection	Wear safety glasses or full face shield if splashes are likely to occur. This conforms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Material Safety Data Sheet

Page: 3 of 5

Infosafe No.	TPMC2	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Hand Protection	PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.
Body Protection	Overalls or similar protective apparel. PVC apron.
Eng. Controls	Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.
Hygiene Measures	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid.
Odour	Characteristic of pineapple.
Specific Gravity (H₂O=1)	0.81 +/- 0.02 (at 20°C)
Flash Point	<23°C [Closed Cup] (ref AS2106-2108)
Flammable Limits LEL	3.3% Ethanol
Flammable Limits UEL	19% Ethanol
Other Information	Refractive index of this material is 1.367 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

Material Safety Data Sheet

Page: 4 of 5

Infosafe No. TPMC2 Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing.

Acute Toxicity - Fish Ethanol:-
Aquatic toxicity not considered a significant hazard.
LC50 (Fingerling trout, 24hrs) 11200mg/l
LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.

Product Disposal Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.

Container Disposal Recycle containers if possible, or dispose off in an authorised landfill.

Local Legislation The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

Precautions Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number 1197

Proper Shipping Name EXTRACTS, FLAVOURING, LIQUID

DG Class 3

Hazchem Code 3[Y]E

Packaging Method 5.9.3RT1

Packing Group II

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Risk Phrase R11 Highly flammable.

Safety Phrase S16 Keep away from sources of ignition - No smoking.

Hazard Category Highly Flammable

16. OTHER INFORMATION

Material Safety Data Sheet

Page: 5 of 5

Infosafe No.	TPMC2	Issue Date : July 2005	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

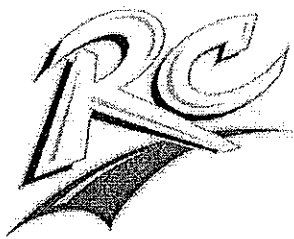
Classified as hazardous according to criteria of NOHSC

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...



Royal Crown Cola International

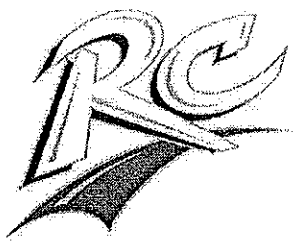
A Division of Cott Beverages Inc
1000 Tenth Avenue, Columbus, GA 31901
Tel: (706) 494-7544 ~ Fax: (706) 494-7502

PRODUCT SPECIFICATION SHEET

Product: RC COLA CONCENTRATE PORTION 1
Serial Number: 0051/0053-F
Destination: Australia
Appearance: Dark, brown liquid
Composition: Caramel Color, Water, Cola Extractives and Flavor, Gum Acacia
Solvent: Water
Color: Caramel Color (E-150)
Preservatives: None
Application: Beverage only
Density: 1.2111 - 1.2211
Heavy Metals: Cadmium (Cd) <0.03 ppb
Mercury (Hg) <0.03 ppb
Arsenic (As) <0.03 ppb
Lead (Pb) <0.08 ppb
Zinc (Zn) <0.05 ppb
Copper (Cu) <0.05 ppb
Shelf-Life: Twelve months from date of manufacture. Expiration date is printed on packaging material.
Storage: Keep away from excessive heat and direct sunlight. Store in a cool, dry place
Conditions: in original packing cartons.
Legal Status: Food product, soft drink concentrate
Note: The above product does not contain agaric acid, allyl hexanoate, beta azarone, berberine, coumarine, hypericine, pulegone, quassine, quinine, saffrole, santonin, spartein, thujone.
European Community- Brussels tariff number: 330210-90


David Ragland
Director Corporate Laboratory Services
Cott Beverages, Inc.
Columbus, GA 31902-1440

 1/2/07.

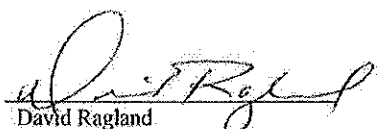


Royal Crown Cola International

A Division of Cott Beverages Inc
1000 Tenth Avenue, Columbus, GA 31901
Tel: (706) 494-7544 ~ Fax: (706) 494-7502

PRODUCT SPECIFICATION SHEET

Product: RC COLA CONCENTRATE PORTION 2
Serial Number: 0052/0054-F
Destination: Australia
Appearance: Dark, brown liquid
Composition: Caramel Color, Phosphoric Acid, Water, Citric Acid, Caffeine
Solvent: Water
Color: Caramel Color (E-150)
Preservatives: None
Application: Beverage only
Density: 1.3602 - 1.3702
Heavy Metals: Cadmium (Cd) <0.03 ppb
Mercury (Hg) <0.03 ppb
Arsenic (As) <0.03 ppb
Lead (Pb) <0.08 ppb
Zinc (Zn) <0.05 ppb
Copper (Cu) <0.05 ppb
Shelf-Life: Twelve months from date of manufacture. Expiration date is printed on packaging material.
Storage: Keep away from excessive heat and direct sunlight. Store in a cool, dry place
Conditions: in original packing cartons.
Legal Status: Food product, soft drink concentrate
Note: The above product does not contain agaric acid, allyl hexanoate, beta azarone, berberine, coumarine, hypericine, pulegone, quassine, quinine, saffrole, santonin, spartein, thujone.
European Community- Brussels tariff number: 330210-90


David Ragland
Director Corporate Laboratory Services
Cott Beverages, Inc.
Columbus, GA 31902-1440

 11/21/07.

Royal Crown Cola International
A Division of Colt Beverages, Inc.
P.O. Box 1440
1000 10th Ave.
Columbus, GA 31902-1440
TEL: (706) 494-7500
FAX: (706) 571-6338

MATERIAL SAFETY DATA SHEET

TYPE OF DATA SHEET

DATE: 16-May-06

☒ NEW

☐ REVISED

Emergency Telephone No. ChemTrec 1-800-424-9300 Information Telephone No. (706) 660-9223

I. IDENTIFICATION

LABEL NAME: ROYAL CROWN COLA CONCENTRATE, PORTION No.1	PRODUCT NO.: 0051 / 0053-F
TRADE OR PRODUCT NAME: SAME	

HAZARD INFORMATION

II. CHEMICAL AND COMMON NAMES

THIS IS A MIXTURE CONTAINING THE FOLLOWING:

THIS IS A MIXTURE CONTAINING NO KNOWN HAZARDOUS MATERIALS.

III. PHYSICAL DATA

ODOR, APPEARANCE AND PHYSICAL STATE: PLEASANT COLA ODOR, DARK BROWN-BLACK LIQUID.		
BOILING POINT: N/A ° C	N/A ° F	SPECIFIC GRAVITY (H2O = 1.0): 1.22
MELTING POINT: N/A ° C	N/A ° F	
VAPOR PRESSURE: N/A mmHg	N/A ° C	N/A ° F
VAPOR DENSITY (AIR = 1): N/A	SOLUBILITY IN H2O: RAPID	

IV. OCCUPATIONAL EXPOSURE LIMIT

THRESHOLD LIMIT VALUE (TLV): N/A
OSHA PERMISSIBLE EXPOSURE LIMIT (PEL): N/A
HAS THE SUBSTANCE BEEN LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN IN THE "ANNUAL REPORT ON CARCINOGENS" PUBLISHED BY NTP, BY THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, OR BY OSHA? ☐ YES ☒ NO

V. HEALTH HAZARD INFORMATION

EFFECTS OF ACUTE AND CHRONIC EXPOSURE: N/A
PRIMARY ROUTE OF ENTRY: ☐ INHALATION ☒ INGESTION ☐ ABSORPTION
MEDICAL CONDITIONS AGGRAVATED: N/A

VI. PROTECTION INFORMATION

RESPIRATORY: N/A	VENTILATION: GENERAL, MECHANICAL
EYE: N/A	SKIN: N/A
OTHER PROTECTIVE DEVICES AND PROCEDURES: N/A	

VII. HANDLING AND STORAGE PROCEDURES

STORE IN A COOL DRY PLACE. DO NOT CONSUME IN PRESENT FORM.

IN CASE OF EMERGENCY

SPILL, LEAK AND DISPOSAL PROCEDURES

PRODUCT NO.:

0051 / 0053-F

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:

FLUSH WITH LARGE AMOUNTS OF WATER
TO A SANITARY SEWER.

WASTE DISPOSAL METHODS:

PER CURRENT FEDERAL, STATE OR LOCAL
REGULATIONS.

FIRE, EXPLOSION AND REACTIVITY DATA

FLASH POINT (METHOD):	N/A >200° F (TAG CLOSED CUP)	
EXTINGUISHING MEDIA:	☐ WATER FOG ☐ CO2 ☐ FOAM ☐ DRY CHEMICAL	DOT HAZARD CLASSIFICATION: NOT REGULATED.
SPECIAL FIRE FIGHTING PROCEDURES:	N/A	
UNUSUAL FIRE AND EXPLOSION HAZARDS:	N/A	
HAZARDOUS COMBUSTIBLE OR DECOMPOSITION PRODUCTS:	N/A	
STABILITY:	STABLE	
CONDITIONS TO AVOID:	N/A	
MATERIALS TO AVOID:	N/A	
HAZARDOUS POLYMERIZATION PRODUCTS:	WILL NOT OCCUR.	

EMERGENCY AND FIRST AID PROCEDURES

INHALATION EXPOSURE:	REMOVE TO FRESH AIR.
EYE CONTACT:	FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. CONSULT PHYSICIAN.
SKIN CONTACT:	FLUSH WITH LARGE AMOUNTS OF WATER.
OTHER:	IF INGESTED, GIVE LARGE AMOUNTS OF WATER. CONSULT PHYSICIAN.

N/A = NOT APPLICABLE or NOT AVAILABLE

Royal Crown Cola International
A Division of Cott Beverages, Inc.
P.O. Box 1440
1000 10th Ave.
Columbus, GA 31902-1440
TEL: (706) 494-7500
FAX: (706) 571-6338

MATERIAL SAFETY DATA SHEET

TYPE OF DATA SHEET

DATE: 9-May-06

 NEW

 X REVISED

Emergency Telephone No. ChemTrec 1-800-424-9300
Information Telephone No. (706) 660-9223

I. IDENTIFICATION

LABEL NAME:	ROYAL CORWN COLA CONCENTRATE, PORTION No. 2	PRODUCT NO.:	0052 / 0054-F
TRADE OR PRODUCT NAME:	SAME		

HAZARD INFORMATION

II. CHEMICAL AND COMMON NAMES

THIS IS A MIXTURE CONTAINING THE FOLLOWING:
PHOSPHORIC ACID, FCC GRADE (ORTHO-PHOSPHORIC ACID) 1.672 LBS. PER UNIT CAS #7664-38-2
CAFFEINE, ANHYDROUS ALKALOID, USP FCC (1,3,7-TRIMETHYLYXANTHINE)

III. PHYSICAL DATA

ODOR, APPEARANCE AND PHYSICAL STATE: COLA-LIKE ODOR, DARK BROWN-BLACK LIQUID			
BOILING POINT:	N/A °C	N/A °F	SPECIFIC GRAVITY (H2O = 1.0): 1.3693
MELTING POINT:	N/A °C	N/A °F	
VAPOR PRESSURE: N/D mmHg	N/A °C	N/A °F	
VAPOR DENSITY (AIR = 1):	N/A		SOLUBILITY IN H2O: RAPID

IV. OCCUPATIONAL EXPOSURE LIMIT

THRESHOLD LIMIT VALUE (TLV):	PHOSPHORIC ACID: 1 mg/M 3	CAFFEINE: N/A
OSHA PERMISSIBLE EXPOSURE LIMIT (PEL):	PHOSPHORIC ACID: 1 mg/M 3	CAFFEINE: N/A
HAS THE SUBSTANCE BEEN LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN IN THE "ANNUAL REPORT ON CARCINOGENS" PUBLISHED BY NTP, BY THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, OR BY OSHA?		
<u> </u> YES <u> X </u> NO		

V. HEALTH HAZARD INFORMATION

EFFECTS OF ACUTE AND CHRONIC EXPOSURE: INGESTION OF CONCENTRATE MAY CAUSE GASTRIC IRRITATION. MAY CAUSE SKIN OR EYE IRRITATION OR POSSIBLE BURNS. INGESTION OF CONCENTRATE MAY CAUSE POSSIBLE CARDIAC OR RESPIRATORY STIMULATION.	
PRIMARY ROUTE OF ENTRY:	<u> </u> INHALATION <u> X </u> INGESTION <u> </u> ABSORPTION
MEDICAL CONDITIONS AGGRAVATED:	UNKNOWN

VI. PROTECTION INFORMATION

RESPIRATORY:	N/A	VENTILATION: GENERAL, MECHANICAL
EYE:	CHEMICAL GOGGLES	SKIN: IMPERVIOUS GLOVES, APRON, COVERALLS.
OTHER PROTECTIVE DEVICES AND PROCEDURES:	N/A	

VII. HANDLING AND STORAGE PROCEDURES

STORE IN A COOL DRY PLACE. DO NOT CONSUME IN PRESENT FORM. AVOID CONTACT WITH SKIN OR EYES.

IN CASE OF EMERGENCY

SPILL, LEAK AND DISPOSAL PROCEDURES

PRODUCT NO.: 0052 / 0054F

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED: CONTAIN SPILL AND SPRINKLE WITH HYDRATED LIME OR SODA ASH. SCRAPE UP AND REMOVE TO COVERED WASTE DISPOSAL CONTAINER OR FLUSH WITH LARGE AMOUNTS OF WATER TO A SANITARY SEWER.	WASTE DISPOSAL METHODS: PER CURRENT FEDERAL, STATE OR LOCAL REGULATIONS

FIRE, EXPLOSION AND REACTIVITY DATA

FLASH POINT (METHOD):	NO FLASHPOINT OBSERVED (TAG CLOSED CUP)	
EXTINGUISHING MEDIA:	☒ WATER FOG ☒ CO2 ☒ FOAM ☒ DRY CHEMICAL	DOT HAZARD CLASSIFICATION: CORROSIVE UN3264
SPECIAL FIRE FIGHTING PROCEDURES:		N/A
UNUSUAL FIRE AND EXPLOSION HAZARDS:		N/A
HAZARDOUS COMBUSTIBLE OR DECOMPOSITION PRODUCTS:		N/A
STABILITY:		STABLE
CONDITIONS TO AVOID:		ACTIVE METAL CONTACT MAY LIBERATE HYDROGEN
MATERIALS TO AVOID:		ACTIVE METALS
HAZARDOUS POLYMERIZATION PRODUCTS:		WILL NOT OCCUR

EMERGENCY AND FIRST AID PROCEDURES

INHALATION EXPOSURE:	REMOVE TO FRESH AIR.
EYE CONTACT:	FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ASSISTANCE.
SKIN CONTACT:	FLUSH WITH LARGE AMOUNTS OF WATER. REMOVE CONTAMINATED CLOTHING.
OTHER:	IF INGESTED, GIVE LARGE AMOUNTS OF WATER. DO NOT INDUCE VOMITING. GET MEDICAL ASSISTANCE.

N/A = NOT APPLICABLE or NOT AVAILABLE

Material Safety Data Sheet

Page: 1 of 5

Infosafe No.	TPMH9	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA LIME FLAVOUR**

Classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	VANILLA LIME FLAVOUR
Product Code	000322
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										
CAS Number	Not applicable										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Material Safety Data Sheet

Page: 2 of 5

Infosafe No. TPMH9 Issue Date : August 2005 ISSUED by THEPRODU

Product Name : **VANILLA LIME FLAVOUR**

Classified as hazardous

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

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Infosafe No.	TPMH9	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA LIME FLAVOUR**

Classified as hazardous

Other Information Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.

Storage Regulations Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

Storage Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.

Storage Temperatures For maximum shelf life store tightly closed under refrigerated conditions. Must not be stored in standard refrigeration. Only explosion-proof or explosion-safe refrigerators may be used.

Other Information Shelf-life: 6 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.

Eye Protection Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Hand Protection PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.

Body Protection Overalls or similar protective apparel. PVC apron.

Eng. Controls Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.

Hygiene Measures Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless to pale yellow liquid.

Odour Characteristic of vanilla and lime.

Specific Gravity (H2O=1) 0.82 +/- 0.02 (at 20°C)

Flash Point <23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]

Flammable Limits 3.3% Ethanol

LEL

Material Safety Data Sheet

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Infosafe No.	TPMH9	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA LIME FLAVOUR**

Classified as hazardous

Flammable Limits 19% Ethanol
UEL

Other Information Refractive index of this material is 1.369 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

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Infosafe No.	TPMH9	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA LIME FLAVOUR**

Classified as hazardous

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No. TPMHJ Issue Date : August 2005 ISSUED by THEPRODU

Product Name : **APPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name APPLE FLAVOUR
Product Code 000332
Product Use This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address 50-60 Popes Road, Keysborough Melbourne
VIC 3173 Australia
Telephone/Telex Number Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type Flavour
Emergency Contact Address 50-60 Popes Road, Keysborough
Victoria, 3173, Australia
(24 hour a day available) +61411076367
Product Safety Guide This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Information on Composition No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Ethanol	64-17-5	40-80 %	F	R11

Substance Formal Name EXTRACTS, FLAVOURING, LIQUID
CAS Number Not applicable

3. HAZARDS IDENTIFICATION

Route(s) of Entry Highly flammable.
Inhalation of vapour
Skin contact/ absorption
Eye contact
Ingestion
Signs and Symptoms of Exposure No specific data available.
Medical Conditions Generally Aggravated by Exposure No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards The vapour is heavier than air, spreads along the ground and distant ignition is possible.
This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Inhalation Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.
Remove contaminated clothing and loosen remaining clothing.

Material Safety Data Sheet

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Infosafe No.	TPMHJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **APPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.
Other Information	Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling	Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.
Storage Regulations	Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

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Infosafe No.	TPMHJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **APPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Storage	Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.
Storage Temperatures	For maximum shelf life store tightly closed under refrigerated conditions. Must not be stored in standard refrigeration. Only explosion-proof or explosion-safe refrigerators may be used.
Other Information	Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection	A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.
Eye Protection	Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.
Hand Protection	PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.
Body Protection	Overalls or similar protective apparel. PVC apron.
Eng. Controls	Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.
Hygiene Measures	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid.
Odour	Characteristic of apple.
Specific Gravity (H2O=1)	0.87 +/- 0.02 (at 20°C)
Flash Point	<23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]
Other Information	Refractive index of this material is 1.371 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.

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Infosafe No.	TPMHJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **APPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Conditions to Avoid Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

	This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following: - Class 1, Explosives - Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk - Class 2.3, Toxic Gases - Class 4.2, Spontaneously Combustible Substances - Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides - Class 6, Toxic Substances (where the flammable liquid is nitromethane) - Class 7, Radioactive Substances.
U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E

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Infosafe No.	TPMHJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **APPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Packaging Method 5.9.3RT1

Packing Group II

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Risk Phrase R11 Highly flammable.

Safety Phrase S16 Keep away from sources of ignition - No smoking.

Hazard Category Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

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Infosafe No.	TPMIG	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **BLACKCURRANT FLAVOUR**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	BLACKCURRANT FLAVOUR
Product Code	000374
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										
CAS Number	Not applicable										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Material Safety Data Sheet

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Infosafe No.	TPMIG	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **BLACKCURRANT FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

Material Safety Data Sheet

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Infosafe No.	TPMIG	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **BLACKCURRANT FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Other Information Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.

Storage Regulations Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

Storage Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.

Other Information Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.

Eye Protection Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Hand Protection PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.

Body Protection Overalls or similar protective apparel. PVC apron.

Eng. Controls Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.

Hygiene Measures Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless liquid.

Odour Characteristic of blackcurrant.

Specific Gravity (H2O=1) 0.81 +/- 0.02 (at 20°C)

Flash Point <23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]

Flammable Limits LEL 3.3% Ethanol

Flammable Limits UEL 19% Ethanol

Other Information Refractive index of this material is 1.366 +/- 0.005 (at 20°C)

Material Safety Data Sheet

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Infosafe No.	TPMIG	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **BLACKCURRANT FLAVOUR**

Classified as hazardous according to criteria of NOHSC

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

Material Safety Data Sheet

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Infosafe No.	TPMIG	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **BLACKCURRANT FLAVOUR**

Classified as hazardous according to criteria of NOHSC

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No.	TPMIJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **GRAPE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	GRAPE FLAVOUR
Product Code	000377
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										
CAS Number	Not applicable										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Material Safety Data Sheet

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Infosafe No.	TPMIJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **GRAPE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

Material Safety Data Sheet

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Infosafe No.	TPMIJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **GRAPE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Other Information Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.

Storage Regulations Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

Storage Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.

Other Information Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.

Eye Protection Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Hand Protection PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.

Body Protection Overalls or similar protective apparel. PVC apron.

Eng. Controls Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.

Hygiene Measures Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless liquid.

Odour Characteristic of mataro grape.

Specific Gravity (H2O=1) 0.81 +/- 0.02 (at 20°C)

Flash Point <23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]

Flammable Limits LEL 3.3% Ethanol

Flammable Limits UEL 19% Ethanol

Other Information Refractive index of this material is 1.362 +/- 0.005 (at 20°C)

Material Safety Data Sheet

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Infosafe No.	TPMIJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **GRAPE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

Material Safety Data Sheet

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Infosafe No.	TPMIJ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **GRAPE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

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Infosafe No.	TPMIS	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	VANILLA FLAVOUR
Product Code	000387
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions in specifications of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Melbourne, Victoria 3173 Australia
(24 hour a day available)	Paul Cornelissen Mobile: +61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid
Information on Composition	No Hazardous ingredients above their cut off level specified by NOHSC are contained in this product.
Substance Formal Name	EXTRACT, FLAVOURING, LIQUID

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Inhalation Ingestion Eye Contact Skin Contact/absorption
Medical Conditions Generally Aggravated by Exposure	No specific data available.

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Seek medical attention if condition persists.
Ingestion	Wash mouth out with water. Give water to drink. Seek medical attention if symptoms of poisoning develop.
Skin	Remove contaminated clothing and wash affected skin with soap and water.
Eye	Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	No specific antidote. Supportive care. Treatment based on the judgment of the doctor in response to the reactions of the patient.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water fog, alcohol foam, carbon dioxide, dry chemical.
Specific Hazards	Combustible liquid. This product will burn if exposed to fire.

Material Safety Data Sheet

Page: 2 of 3

Infosafe No.	TPMIS	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

Hazardous Combustion Products Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent such as vermiculite, sand or dirt onto material. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Mop up the remaining material and place into the same container.

7. HANDLING AND STORAGE

Storage Store in a cool dry place out of direct sunlight. Avoid contact with incompatible materials that support combustion such as strong oxidising agents.

Other Information Shelf Life: 12 Months According to the specific storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits Wear safety glasses or full-face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337.

No exposure standards have been established for this material by the National Occupational Health & Safety Commission (NOHSC).

Respiratory Protection In the event of an inhalation risk from vapour, fume or mist, wear a respirator fitted with an organic vapour cartridge combined with a particulate pre-filter.

Eng. Controls Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flame proof exhaust ventilation system is required.

Hygiene Measures Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Pale straw coloured to brown liquid.

Odour Characteristic of vanilla.

Specific Gravity (H₂O=1) 1.06 +/- 0.02 (at 20°C)

Flash Point >60.5°C (Closed Cup ref. AS2106-2108)

Other Information Refractive index of this material is 1.451 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

Stability Stable under normal use conditons.

Hazardous Polymerization Will not occur.

Materials to Avoid Oxidising agents

Hazardous Decomposition Products Propionaldehyde, carbon monoxide in the presence of limited oxygen in a fire situation.

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of mists or aerosols may produce respiratory irritation.

Ingestion Not a likely source of exposure, however, may be harmful if swallowed in large amounts. Potential symptoms include nausea, diarrhoea, abdominal pain and vomiting.

Skin Skin contact is not expected to cause irritation

Eye May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Mists may cause eye irritation.

Chronic Effects Repeated excessive ingestion may cause central nervous system effects.

Material Safety Data Sheet

Page: 3 of 3

Infosafe No.	TPMIS	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **VANILLA FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

12. ECOLOGICAL INFORMATION

Information on No data supplied.

Ecological Effects

Environ. Protection Avoid contaminating waterways, drains or sewers.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recycle or dispose of in accordance with prevailing regulations, preferably to a recognised collector or contractor.

14. TRANSPORT INFORMATION

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated

15. REGULATORY INFORMATION

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of the Material Safety Data Sheet and is provided and complied from best knowledge available to us under relevant Australian health, safety and environmental legislation. The product makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using this data and disclaims all liability for reliance on information provided in this data sheet. It is the customers obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough, Melbourne
Victoria, 3173
Australia

Technical Contact Numbers Tel: +613-97710300 Fax: +613-97710301

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No. TPMIZ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **LIME FLAVOUR**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	LIME FLAVOUR
Product Code	000394
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										
CAS Number	Not applicable										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.

Other Information

4. FIRST AID MEASURES

Material Safety Data Sheet

Page: 2 of 5

Infosafe No.	TPMIZ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **LIME FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice. Remove contaminated clothing and loosen remaining clothing. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Protection for First Aiders	Is not normally required. However, the use of safety glasses and PVC gloves is considered as a good practice. Where ventilation may be inadequate, wear self-contained breathing apparatus.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur. Closed containers may build-up pressure and/or explode at elevated temperatures.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Stay away from end of fire exposed tanks and drums. Prevent build-up of electrostatic charges by grounding. Use reduced sparking handtools. Avoid spreading liquid and fire by water flooding. Well ventilate enclosed spaces before entering. Do not inhale the vapour and smoke from combustion. Prevent build-up of flammable vapours. Use water spray to cool fire-exposed surfaces, containers and any adjacent storage vessels.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Extinguish naked flames. Do not breathe vapour. Shut off leaks, if possible without personal risk. Take precautionary measures against static discharge. Remove all possible sources of ignition in the surrounding area Avoid sparks. Avoid contact with skin, eyes. Prevent build-up of flammable vapours.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Wash area down with excess water.
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented. Clean up residues using copious amounts of water.

Material Safety Data Sheet

Page: 3 of 5

Infosafe No.	TPMIZ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **LIME FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Other Information Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.

Storage Regulations Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.

Storage Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.

Storage Temperatures For maximum shelf life store tightly closed under refrigerated conditions. Must not be stored in standard refrigeration. Only explosion-proof or explosion-safe refrigerators may be used.

Other Information Shelf-life: 12 months according to the specified storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.

Eye Protection Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.

Hand Protection PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.

Body Protection Overalls or similar protective apparel. PVC apron.

Eng. Controls Use only in well ventilated areas. Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Supply sufficient replacement air to make up for air removed by exhaust systems. Flameproof equipment is necessary. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.

Hygiene Measures Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless to pale yellow liquid.

Odour Characteristic of lime with vanilla and fruity notes.

Specific Gravity (H2O=1) 0.81 +/- 0.02 (at 20°C)

Flash Point <23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]

Flammable Limits 3.3% Ethanol

LEL

Material Safety Data Sheet

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Infosafe No.	TPMIZ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **LIME FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Flammable Limits 19% Ethanol
UEL

Other Information Refractive index of this material is 1.372 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents.
Hazardous Decomposition Products	Under normal conditions this product is not expected to produce hazardous decomposition products.
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.
Conditions to Avoid	Avoid contact or reaction with oxidising agents. Do not heat closed container. Avoid temperatures above or near the flash point. Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

12. ECOLOGICAL INFORMATION

	This material has not been subjected to ecological testing.
Acute Toxicity - Fish	Ethanol:- Aquatic toxicity not considered a significant hazard. LC50 (Fingerling trout, 24hrs) 11200mg/l LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.
Product Disposal	Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.
Container Disposal	Recycle containers if possible, or dispose off in an authorised landfill.
Local Legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.
Precautions	Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

Material Safety Data Sheet

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Infosafe No.	TPMIZ	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **LIME FLAVOUR**

Classified as hazardous according to criteria of NOHSC

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number	1197
Proper Shipping Name	EXTRACTS, FLAVOURING, LIQUID
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	5.9.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R11 Highly flammable.
Safety Phrase	S16 Keep away from sources of ignition - No smoking.
Hazard Category	Highly Flammable

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 3

Infosafe No. TPMO4 Issue Date : August 2005 MODIFIED by THEPRODU

Product Name : **ORANGE FLAVOUR**

Classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name ORANGE FLAVOUR
Product Code 000588
Product Use This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions in specifications of this product.
Company Name The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address 50-60 Popes Road, Keysborough Melbourne
VIC 3173 Australia
Telephone/Telex Number Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type Flavour
Emergency Contact Address 50-60 Popes Road, Keysborough
Melbourne, Victoria 3173
Australia
(24 hour a day available) Paul Cornelissen
Mobile: +61411076367
Product Safety Guide This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Ingredients

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
d-Limonene	5989-27-5	1-10 %	Xi, N	R38, R43, R50/53

3. HAZARDS IDENTIFICATION

May cause sensitization by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Route(s) of Entry Inhalation
Dermal Contact
Eye Contact
Ingestion
Medical Conditions Generally Aggravated by Exposure No specific data available.

4. FIRST AID MEASURES

Inhalation Remove the source of contamination or move the victim to fresh air. Seek medical attention if condition persists.
Ingestion Wash mouth out with water. Give water to drink. Seek medical attention if symptoms of poisoning develop.
Skin Remove contaminated clothing and wash affected skin with soap and water.
Eye Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.
First Aid Facilities An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor No specific antidote. Supportive care. Treatment based on the judgment of the doctor in response to the reactions of the patient.

5. FIRE FIGHTING MEASURES

Material Safety Data Sheet

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Infosafe No. TPMO4 Issue Date : August 2005 MODIFIED by THEPRODU

Product Name : **ORANGE FLAVOUR**

Classified as hazardous

Extinguishing Media Not combustible. Use extinguishing media suitable for surrounding environment.

Hazardous The product is considered non-combustible. Its other hazardous properties should

Combustion Products however be considered if it is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Collect and seal in properly labelled drums for disposal. Wash away residues with water.

7. HANDLING AND STORAGE

Storage Store in a cool dry place out of direct sunlight. Avoid contact with incompatible materials. Storage of partially filled containers should be avoided due to possible oxidation and/or flavour deterioration.

Other Information Shelf Life: 12 Months According to the specific storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits Wear safety glasses or full-face shield to prevent eye injury.

No exposure standards have been established for this material by the National Occupational Health & Safety Commission (NOHSC).

Respiratory Protection Where ventilation is inadequate, a P1 half facepiece respirator with replaceable filter or disposable facepiece as specified by AS/NZS 1715 and 1716 is recommended.

Eng. Controls Provide adequate ventilation in storage areas

Hygiene Measures Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Opaque, yellow liquid. Separation may occur during storage.

Odour Characteristic of orange.

Specific Gravity (H₂O=1) 1.06 +/- 0.02 (at 20°C)

Flash Point >60.5°C (Closed Cup ref. AS2106-2108)

10. STABILITY AND REACTIVITY

Stability Stable under normal use conditons.

Hazardous Will not occur.

Polymerization

Materials to Avoid None known

Hazardous No decomposition if correctly stored and handled.

Decomposition

Products

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of mists or aerosols may produce respiratory irritation.

Ingestion Not a likely source of exposure, however, may be harmful if swallowed in large amounts. Potential symptoms include nausea, diarrhoea, abdominal pain and vomiting.

Skin Skin contact can cause irritation. Repeated or prolonged skin contact may lead to irritation.

Eye May cause discomfort. Not expected to cause permanent eye damage.

Chronic Effects No data supplied.

12. ECOLOGICAL INFORMATION

Information on No data supplied.

Ecological Effects

Material Safety Data Sheet

Page: 3 of 3

Infosafe No.	TPMO4	Issue Date : August 2005	MODIFIED by THEPRODU

Product Name : **ORANGE FLAVOUR**

Classified as hazardous

Environ. Protection Avoid contaminating waterways, drains or sewers. Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recycle or dispose of in accordance with prevailing regulations, preferably to a recognised collector or contractor.

14. TRANSPORT INFORMATION

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

15. REGULATORY INFORMATION

Risk Phrase R43 May cause sensitization by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase S24 Avoid contact with skin.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Hazard Category Irritant, Dangerous for the environment

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of the Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using this data and disclaims all liability for reliance on information provided in this data sheet. It is the customers obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough, Melbourne
Victoria, 3173
Australia

Technical Contact Numbers Tel: +613-97710300 Fax: +613-97710301

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 3

Infosafe No.	TPMNT	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **MANGO FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	MANGO FLAVOUR
Product Code	000597
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions in specifications of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Melbourne, Victoria 3173 Australia
(24 hour a day available)	Paul Cornelissen Mobile: +61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid
Information on Composition	No Hazardous ingredients above their cut off level specified by NOHSC are contained in this product.

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Inhalation Dermal Contact Eye Contact
Medical Conditions Generally Aggravated by Exposure	No specific data available.

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Seek medical attention if condition persists.
Ingestion	Wash mouth out with water. Give water to drink. Seek medical attention if symptoms of poisoning develop.
Skin	Remove contaminated clothing and wash affected skin with soap and water.
Eye	Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	No specific antidote. Supportive care. Treatment based on the judgment of the doctor in response to the reactions of the patient.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Not combustible. Use extinguishing media suitable for surrounding environment.
Hazardous Combustion Products	The product is considered non-combustible. Its other hazardous properties should however be considered if it is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Material Safety Data Sheet

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Infosafe No.	TPMNT	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **MANGO FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

Spills & Disposal Collect and seal in properly labelled drums for disposal. Wash away residues with water.

7. HANDLING AND STORAGE

Storage Store in a cool dry place out of direct sunlight. Avoid contact with incompatible materials. Storage of partially filled containers should be avoided due to possible oxidation and/or flavour deterioration.

Other Information Shelf Life: 12 Months According to the specific storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits Wear safety glasses or full-face shield to prevent eye injury.

No exposure standards have been established for this material by the National Occupational Health & Safety Commission (NOHSC).

Respiratory Protection Where ventilation is inadequate, a P1 half facepiece respirator with replaceable filter or disposable facepiece as specified by AS/NZS 1715 and 1716 is recommended.

Eng. Controls Provide adequate ventilation in storage areas

Hygiene Measures Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Opaque, white liquid. Separation may occur during storage.

Odour Characteristic of mango.

Specific Gravity (H₂O=1) 1.02 +/- 0.02 (at 20°C)

Flash Point >60.5°C (Closed Cup ref. AS2106-2108)

10. STABILITY AND REACTIVITY

Stability Stable under normal use conditons.

Hazardous Will not occur.

Polymerization

Materials to Avoid None known

Hazardous No decomposition if correctly stored and handled.

Decomposition Products

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of mists or aerosols may produce respiratory irritation.

Ingestion Not a likely source of exposure, however, may be harmful if swallowed in large amounts. Potential symptoms include nausea, diarrhoea, abdominal pain and vomiting.

Skin Skin contact is not expected to cause irritation. Repeated or prolonged skin contact may lead to irritation.

Eye May cause discomfort. Not expected to cause permanent eye damage.

Chronic Effects There are no known adverse effects following chronic exposure to the material.

12. ECOLOGICAL INFORMATION

Information on No data supplied.

Ecological Effects

Environ. Protection Avoid contaminating waterways, drains or sewers.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recycle or dispose of in accordance with prevailing regulations, preferably to a recognised collector or contractor.

Material Safety Data Sheet

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Infosafe No.	TPMNT	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **MANGO FLAVOUR**

Not classified as hazardous according to criteria of NOHSC

14. TRANSPORT INFORMATION

U.N. Number	None Allocated
Proper Shipping Name	None Allocated
DG Class	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated

15. REGULATORY INFORMATION

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of the Material Safety Data Sheet and is provided and complied from best knowledge available to us under relevant Australian health, safety and environmental legislation. The product makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using this data and disclaims all liability for reliance on information provided in this data sheet. It is the customers obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough, Melbourne
Victoria, 3173
Australia

Technical Contact Numbers Tel: +613-97710300 Fax: +613-97710301

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 3

Infosafe No. TPMNX Issue Date : September 2006 ISSUED by THEPRODU

Product Name : PINEAPPLE FLAVOUR

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name PINEAPPLE FLAVOUR
Product Code 000602
Product Use This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions in specifications of this product.
Company Name The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address 50-60 Popes Road, Keysborough Melbourne
VIC 3173 Australia
Telephone/Telex Number Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type Flavour
Emergency Contact Address 50-60 Popes Road, Keysborough
Melbourne, Victoria 3173
Australia
(24 hour a day available) Paul Cornelissen
Mobile: +61411076367
Product Safety Guide This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Ingredients

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
d-Limonene	5989-27-5	1-10 %	Xi, N	R38, R43, R50/53

3. HAZARDS IDENTIFICATION

May cause sensitization by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Route(s) of Entry Inhalation
Dermal Contact
Eye Contact
Ingestion
Medical Conditions Generally Aggravated by Exposure No specific data available.

4. FIRST AID MEASURES

Inhalation Remove the source of contamination or move the victim to fresh air. Seek medical attention if condition persists.
Ingestion Wash mouth out with water. Give water to drink. Seek medical attention if symptoms of poisoning develop.
Skin Remove contaminated clothing and wash affected skin with soap and water.
Eye Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.
First Aid Facilities An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor No specific antidote. Supportive care. Treatment based on the judgment of the doctor in response to the reactions of the patient.

5. FIRE FIGHTING MEASURES

Material Safety Data Sheet

Page: 2 of 3

Infosafe No. TPMNX	Issue Date : September 2006	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Extinguishing Media Not combustible. Use extinguishing media suitable for surrounding environment.

Hazardous The product is considered non-combustible. Its other hazardous properties should

Combustion Products however be considered if it is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Collect and seal in properly labelled drums for disposal.

7. HANDLING AND STORAGE

Storage Store in a cool dry place out of direct sunlight. Avoid contact with incompatible materials. Storage of partially filled containers should be avoided due to possible oxidation and/or flavour deterioration.

Other Information Shelf Life: 12 Months According to the specific storage conditions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits Wear safety glasses or full-face shield to prevent eye injury.

No exposure standards have been established for this material by the National Occupational Health & Safety Commission (NOHSC).

Respiratory Protection Where ventilation is inadequate, a P1 half facepiece respirator with replaceable filter or disposable facepiece as specified by AS/NZS 1715 and 1716 is recommended.

Eng. Controls Provide adequate ventilation in storage areas

Hygiene Measures Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Opaque, yellow to beige liquid. Separation may occur during storage.

Odour Characteristic of pineapple.

Specific Gravity (H₂O=1) 0.99 +/- 0.02 (at 20°C)

Flash Point >60.5°C (Closed Cup ref. AS2106-2108)

10. STABILITY AND REACTIVITY

Stability Stable under normal use conditons.

Hazardous Will not occur.

Polymerization

Materials to Avoid None known

Hazardous No decomposition if correctly stored and handled.

Decomposition Products

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of mists or aerosols may produce respiratory irritation.

Ingestion Not a likely source of exposure, however, may be harmful if swallowed in large amounts. Potential symptoms include nausea, diarrhoea, abdominal pain and vomiting.

Skin Skin contact can cause irritation. Repeated or prolonged skin contact may lead to irritation.

Eye May cause discomfort. Not expected to cause permanent eye damage.

Chronic Effects No data supplied.

12. ECOLOGICAL INFORMATION

Information on Ecological Effects No data supplied.

Material Safety Data Sheet

Page: 3 of 3

Infosafe No.	TPMNX	Issue Date : September 2006	ISSUED by THEPRODU

Product Name : **PINEAPPLE FLAVOUR**

Classified as hazardous according to criteria of NOHSC

Environ. Protection Avoid contaminating waterways, drains or sewers. Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recycle or dispose of in accordance with prevailing regulations, preferably to a recognised collector or contractor.

14. TRANSPORT INFORMATION

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated

15. REGULATORY INFORMATION

Risk Phrase R43 May cause sensitization by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase S24 Avoid contact with skin.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Hazard Category Irritant, Dangerous for the environment

16. OTHER INFORMATION

Manufacturers Advice We believe that the information contained herein is current as of the date of the Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using this data and disclaims all liability for reliance on information provided in this data sheet. It is the customers obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough, Melbourne
Victoria, 3173
Australia

Technical Contact Numbers Tel: +613-97710300 Fax: +613-97710301

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 5

Infosafe No.	TPN0G	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR NATURAL**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	PASSIONFRUIT FLAVOUR NATURAL
Product Code	001156
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions given in specification of this product.
Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Telephone/Telex Number	Tel: +613 9771 0300 Fax: +613 9771 0301
Product Type	Flavour
Emergency Contact Address	50-60 Popes Road, Keysborough Victoria, 3173, Australia
(24 hour a day available)	+61411076367
Product Safety Guide	This flavour contains raw materials that are approved and classified for use in food flavourings by FEMA-GRAS, Council of Europe and/or USFDA (CFR).

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid										
Information on Composition	No hazardous ingredient contained in this product, except what listed below in 'Ingredients' section, present in a quantity exceeding the lowest relevant concentration cut-off level specified for the hazard classification according to National Occupational Health and Safety Commission (NOHSC).										
Ingredients	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th><th><u>Hazard Symbol</u></th><th><u>Risk Phrase</u></th></tr></thead><tbody><tr><td>Ethanol</td><td>64-17-5</td><td>60-100 %</td><td>F</td><td>R11</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>	Ethanol	64-17-5	60-100 %	F	R11
<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>							
Ethanol	64-17-5	60-100 %	F	R11							
Substance Formal Name	EXTRACTS, FLAVOURING, LIQUID										

3. HAZARDS IDENTIFICATION

Route(s) of Entry	Highly flammable. Inhalation of vapour Skin contact/ absorption Eye contact Ingestion
Signs and Symptoms of Exposure	No specific data available.
Medical Conditions Generally Aggravated by Exposure	No specific data available. May accentuate any pre-existing skin condition. Open cuts, abraded, or irritated skin should not be exposed to this material.
Safety Hazards	The vapour is heavier than air, spreads along the ground and distant ignition is possible. This product is considered to be FLAMMABLE.
Other Information	

4. FIRST AID MEASURES

Inhalation	Keep warm and at rest. Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.

Material Safety Data Sheet

Page: 2 of 5

Infosafe No.	TPN0G	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR NATURAL**

Classified as hazardous according to criteria of NOHSC

Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Extinguish fire with the following: Foam, Dry chemical powder, or Carbon dioxide.
Specific Hazards	Carbon monoxide may be evolved if incomplete combustion occurs. Explosive air-vapour mixture may form. Possible risk of distant ignition of vapour. Flashback along vapour trail may occur.
Precautions in connection with Fire	If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition. Avoid spreading liquid and fire by water flooding.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate the area of all non-essential personnel. Ventilate contaminated area thoroughly. Shut off leaks, if possible without personal risk. Remove all possible sources of ignition in the surrounding area
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Environmental Precautions	Prevent contamination of soil and water. Prevent from entering into drains, ditches, rivers or the sea.
Clean-up Methods - Small Spillages	Absorb liquid with sand or earth. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. Use absorbent (soil or sand, sawdust, inert material, vermiculite).
Clean-up Methods - Large Spillages	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage. Prevent from spreading by making a barrier with sand, earth or other containment material. Inform the local authorities if this cannot be prevented.
Other Information	Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration.

7. HANDLING AND STORAGE

Handling	Keep material away from sparks, flames and other ignition sources. Post 'NO SMOKING' signs in area of use. Avoid generating mist. Use small amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. When-ever possible, fire resistant containers should be used. Handle and open containers with care. Only use in well-ventilated areas.
Storage Regulations	Store in accordance with Dangerous Goods (Storage and Handling) Regulations and AS1940 Storage and Handling of Flammable and Combustible Liquids.
Storage	Keep only in original container in an approved flame-proof area. Keep containers closed when not in use. Store in a well-ventilated area away from heat and sources of ignition. Store away from incompatible materials such as materials that support combustion (oxidising materials). Inspect periodically for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in dry, cool place and out of direct sunlight.
Storage Temperatures	For maximum shelf life store tightly closed under refrigerated conditions. Must not be stored in standard refrigeration. Only explosion-proof or explosion-safe refrigerators may be used.
Other Information	Shelf-life: 12 months according to the specified storage conditions.

Material Safety Data Sheet

Page: 3 of 5

Infosafe No.	TPN0G	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR NATURAL**

Classified as hazardous according to criteria of NOHSC

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection	A respirator is not normally required. If vapour concentration is suspected to be high, use organic vapour respirator conforming to Australian Standard AS1715/1716. Wear supplied air-breathing apparatus in confined areas.
Eye Protection	Wear safety glasses or full face shield if splashes are likely to occur. This confirms with the Australian Standard AS1336/1337. Eyewash unit must be available.
Hand Protection	PVC or nitrile rubber gloves. This confirms with the Australian Standard AS2161.
Body Protection	Overalls or similar protective apparel. PVC apron.
Eng. Controls	Natural ventilation should be adequate under normal conditions of use. When there is large-scale use of this material, engineering control methods to reduce exposures may be necessary. The use of local or mechanical exhaust ventilation should be considered. Nearby equipment must be earthed. Hoses should be electrically continuous and containers bonded to avoid static charge build-up.
Hygiene Measures	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid.
Odour	Characteristic of passionfruit.
Specific Gravity (H2O=1)	0.815 +/- 0.02 (at 20°C)
Flash Point	<23°C Closed Cup ref AS2106-2108 [Ethanol: 13°C]
Other Information	Refractive index of this material is 1.364 +/- 0.005 (at 20°C)

10. STABILITY AND REACTIVITY

	Stable.
Stability	Stable at standard temperature and pressure and under conditions of normal use.
Hazardous	Will not occur.
Polymerization	
Materials to Avoid	Strong oxidising agents.
Hazardous	Under normal conditions this product is not expected to produce hazardous
Decomposition	decomposition products.
Products	
Hazardous Reaction	Reaction with strong oxidising agents. Concentrated nitric acid and concentrated sulphuric acid.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	This material has not been subjected to toxicological testing.
Inhalation	The vapour may be irritating to upper respiratory tract and lungs. May cause intoxication. Headache and dizziness may occur.
Ingestion	Significant absorption can result in central nervous system depression with symptoms of headache, dizziness, fatigue and nausea. Large dose may cause unconsciousness.
Skin	Not expected to be irritating to the skin although will have a degreasing action on the skin.
Eye	The liquid and its vapour may be irritating to eyes.
Chronic Effects	Prolonged or continuous skin contact with the liquid may cause defatting of skin with drying, cracking, leading to dermatitis.

Material Safety Data Sheet

Page: 4 of 5

Infosafe No.	TPN0G	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR NATURAL**

Classified as hazardous according to criteria of NOHSC

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing.

Acute Toxicity - Fish Ethanol:-
Aquatic toxicity not considered a significant hazard.
LC50 (Fingerling trout, 24hrs) 11200mg/l
LC50 (guppy, 7 days) 11050ppm

13. DISPOSAL CONSIDERATIONS

Waste Disposal Recover or recycle if possible. Otherwise securely package and store awaiting disposal advice.

Product Disposal Residual quantities of the product should be treated according to the instruction given under sections 6,7, and 8.

Container Disposal Recycle containers if possible, or dispose off in an authorised landfill.

Local Legislation The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

Precautions Used product may have different properties and hazards. See Section 8. Containers of this material may be hazardous when empty since they retain product residues (vapours and liquids)

14. TRANSPORT INFORMATION

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2, Spontaneously Combustible Substances
- Class 5.1, Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the flammable liquid is nitromethane)
- Class 7, Radioactive Substances.

U.N. Number 1197

Proper Shipping Name EXTRACTS, FLAVOURING, LIQUID

DG Class 3

Hazchem Code 3[Y]E

Packaging Method 5.9.3RT1

Packing Group II

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Risk Phrase R11 Highly flammable.

Safety Phrase S16 Keep away from sources of ignition - No smoking.

Hazard Category Highly Flammable

16. OTHER INFORMATION

Material Safety Data Sheet

Page: 5 of 5

Infosafe No.	TPN0G	Issue Date : August 2005	ISSUED by THEPRODU

Product Name : **PASSIONFRUIT FLAVOUR NATURAL**

Classified as hazardous according to criteria of NOHSC

Manufacturers Advice We believe that the information contained herein is current as of the date of this Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The Product Makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet. It is customer's obligation to take control of the safe use of the product according to their activities and circumstances.

Technical Contact Point The Product Makers (Aust.) Pty Ltd
TECHNICAL DEPARTMENT
50-60 Popes Road, Keysborough
Victoria, 3173, Australia

Technical Contact Numbers +61 3 9771 0300

...End Of MSDS...

Material Safety Data Sheet

Page: 1 of 3

Infosafe No.	TPN2Q	Issue Date : October 2005	ISSUED by THEPRODU

Product Name : **COLOUR BETA CAROTENE 1%**

Classified as hazardous according to criteria of NOHSC

COMPANY DETAILS

Company Name	The Product Makers (Aust) Pty Ltd (ABN 48007217496)
Address	50-60 Popes Road, Keysborough Melbourne VIC 3173 Australia
Tel/Fax	Tel: +613 9771 0300 Fax: +613 9771 0301
Emergency Contact Address	50-60 Popes Road, Keysborough Melbourne, Victoria 3173 Australia
(24 hour a day available)	Paul Cornelissen Mobile: +61411076367

IDENTIFICATION

Product Code	001189
Product Name	COLOUR BETA CAROTENE 1%
Proper Shipping Name	None Allocated
UN Number	None Allocated
DG Class	None Allocated
Packing Group	None Allocated
Hazchem Code	None Allocated
Product Use	This product is a concentrated raw material for manufacturing use only. Not intended for direct consumption. Dilute before use according to instructions in specifications of this product.
Product Type	Colour
Product Safety Guide	This product complies with FSANZ (Food Standards Australia and New Zealand), Standard 1.3.1 Food Additives.

Physical Data

Appearance	Opaque, orange liquid.
Specific Gravity	1.05 +/- 0.02 (at 20°C)
Flash Point	>60.5°C (Closed Cup ref. AS2106-2108)

Other Properties

Odour	Slight citrus aroma.
Form	Liquid
Stability	Stable under normal use conditons.
Haz. Polymerization	Will not occur.
Materials to Avoid	None known

Ingredients

Ingredients	Name	CAS	Proportion
	d-Limonene	5989-27-5	1-10 %

HEALTH HAZARD INFORMATION

Health Effects

Acute - Swallowed	Not a likely source of exposure, however, may be harmful if swallowed in large amounts. Potential symptoms include nausea, diarrhoea, abdominal pain and vomiting.
Acute - Eye	May cause irritation. Not expected to cause permanent eye damage.
Acute - Skin	Skin contact can cause irritation. Repeated or prolonged skin contact may lead to sensitization.

Material Safety Data Sheet

Page: 2 of 3

Infosafe No.	TPN2Q	Issue Date : October 2005	ISSUED by THEPRODU

Product Name : **COLOUR BETA CAROTENE 1%**

Classified as hazardous according to criteria of NOHSC

Acute - Inhaled Inhalation of mists or aerosols may produce respiratory irritation.

Route(s) of Entry Inhalation
Dermal Contact
Eye Contact

Chronic No data supplied.

First Aid

Swallowed Wash mouth out with water. Give water to drink. Seek medical attention if symptoms of poisoning develop.

Eye Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.

Skin Remove contaminated clothing and wash affected skin with soap and water.

Inhaled Remove the source of contamination or move the victim to fresh air. Seek medical attention if condition persists.

First Aid Facilities An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.

Advice to Doctor

Advice to Doctor No specific antidote. Supportive care. Treatment based on the judgment of the doctor in response to the reactions of the patient.

Other Health Hazard Information

Entry Route(s) Inhalation
Dermal Contact
Eye Contact

Medical Conditions No specific data available.

**Generally Aggravated
by Exposure**

PRECAUTIONS FOR USE

Exposure Limits No exposure standards have been established for this material by the National Occupational Health & Safety Commission (NOHSC).

Eng. Controls Provide adequate ventilation in storage areas

Exposure Controls, Wear safety glasses or full-face shield to prevent eye injury.

Personal Protection

Personal Protection

Respirator Type (AS 1716) Where ventilation is inadequate, a P1 half facepiece respirator with replaceable filter or disposable facepiece as specified by AS/NZS 1715 and 1716 is recommended.

Work/Hygienic Practices Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

Flammability

SAFE HANDLING INFORMATION

Storage and Transport

Storage Precautions Store in a cool dry place out of direct sunlight. Avoid contact with incompatible materials. Storage of partially filled containers should be avoided due to possible oxidation and/or flavour deterioration.

Other Storage Info. Shelf Life: 12 Months According to the specific storage conditions.

Proper Shipping Name None Allocated

Material Safety Data Sheet

Page: 3 of 3

Infosafe No.	TPN2Q	Issue Date : October 2005	ISSUED by THEPRODU

Product Name : **COLOUR BETA CAROTENE 1%**

Classified as hazardous according to criteria of NOHSC

Spills and Disposal

Spills & Disposal	Collect and seal in properly labelled drums for disposal.
Disposal	Recycle or dispose of in accordance with prevailing regulations, preferably to a recognised collector or contractor.
Environmental	Prevent contamination of soil and water.
Precautions	

Fire/Explosion Hazard

Hazardous	The product is considered non-combustible. Its other hazardous properties should
Combustion Products	however be considered if it is involved in a fire.
Hazardous	No decomposition if correctly stored and handled.
Decomposition or	
Byproducts	
Extinguishing Media	Not combustible. Use extinguishing media suitable for surrounding environment.
Hazchem Code	None Allocated

OTHER INFORMATION

Information on	No data supplied.
Ecological Effects	
Environ. Protection	Avoid contaminating waterways, drains or sewers. Harmful to aquatic life.
Risk Statement	R43 May cause sensitization by skin contact. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Statement	S24 Avoid contact with skin. S37 Wear suitable gloves. S60 This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
Hazard Category	Irritant,Dangerous for the environment
Manufacturers Advice	We believe that the information contained herein is current as of the date of the Material Safety Data Sheet and is provided and compiled from best knowledge available to us under relevant Australian health, safety and environmental legislation. The product makers accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using this data and disclaims all liability for reliance on information provided in this data sheet. It is the customers obligation to take control of the safe use of the product according to their activities and circumstances.

CONTACT POINT

Technical Contact	The Product Makers (Aust) Pty Ltd
Point	TECHNICAL DEPARTMENT 50-60 Popes Road, Keysborough, Melbourne Victoria, 3173 Australia
Technical Contact	Tel: +613-97710300 Fax:+613-97710301
Numbers	...End Of MSDS...



MATERIAL SAFETY DATA SHEET

Liquid Sugar

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: Liquid Sugar
Applicable in: Australia
Other Names: Sugar Syrup, Sucrose Syrup
Recommended use: Food Additive, Foodstuff, Food Industry
Company: Sugar Australia Pty Limited ABN 82 081 245 169
Address: 265 Whitehall St
Yarraville VIC 3013
Australia
Telephone: +61 3 9283 4558
Facsimile: +61 3 9689 4085
Emergency Phone Number: Poisons Information Centre 13 11 26

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with the Code and guidelines from the Australian Safety and Compensation Council (ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in ASCC standards, guidelines, or regulations and/or a material change in product specifications.

SECTION 2: HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: classified as **Non Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Liquid Sugar is classified as **Non-Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Note: This product is a well known ingredient in food and beverages and this Material Safety Data Sheet is concerned only with occupational exposures.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Proportion:	CAS Number:
Sucrose	66-68%	57-50-1
Water	32-34%	7732-18-5

SECTION 4: FIRST AID MEASURES

Swallowed: Give water to drink.
Eye: Flush thoroughly with copious amounts of running water. If symptoms persist, seek medical attention.
Skin: Wash thoroughly with soap and water.
Inhaled: Remove to fresh air.
Advice to Doctor: Treat symptomatically. People with diabetes may need stabilisation.

SECTION 5: FIRE FIGHTING MEASURES

Specific Hazards: Incompatible with strong oxidising agents.
Flammability: Low, product will burn in surrounding fire situation.
Extinguishing Media: Water, dry chemical, carbon dioxide, BCF and foam.
Hazards from combustion products: With heat, product burns/oxidises to form carbon, carbon monoxide and or carbon dioxide, and smoke.
Special protective precautions and equipment for fire fighters: Standard fire-fighting precautions applicable.
Hazchem code: None allocated

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills: Wet sweep, vacuum or pump into containers. Wash area with water. Notify any relevant waste or environmental authority.

SECTION 7: HANDLING AND STORAGE

Handling: Material can ferment if excessive moisture contamination is allowed. Fermentation can yield carbon dioxide with possible traces of ethanol or volatile fatty acids (e.g. acetic, propionic, lactic, or butyric) and if exposed to a spark or flame may result in an explosion. These conditions should be avoided. If maintenance of tank requires entry by personnel, confined space precautions should be complied with. Insufficient oxygen may be present in vessels containing the product due to the generation of carbon monoxide during fermentation.
Storage: This product should be stored in its factory packaging in a dry area. Liquid Sugar in bulk should be stored in a vented tank designed to contain a material with a specific gravity of 1.3 or greater. Localised microbiological deterioration may start in areas where the liquid becomes diluted. Storage above 40°C can lead to spontaneous decomposition.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: **National Occupational Exposure Standard (NES) Australian Safety and Compensation Council, ASCC (formerly NOHSC)**
None allocated. Avoid liquid mist generation.

Engineering Controls: General room ventilation should be adequate, but local mechanical ventilation may be required if liquid mists are generated, particularly in confined spaces. Work areas should be cleaned regularly by wet sweeping or vacuuming.

Ventilation:

Personal Protection If engineering controls and work practices are not effective in controlling exposure, then personal protective equipment may be required.

Skin Protection: Direct skin contact should be avoided by wearing long sleeved shirts and long

	trousers, a cap or hat, and gloves (PVC coated fabric or equivalent AS 2161). Work clothes should be washed regularly.
Eye Protection:	Ventilated non-fogging goggles (splash resistant AS/NZS 1336) should be worn if liquid mist is generated.
Respiratory Protection:	An approved particulate respirator conforming to Australian Standards AS/NZS 1715 and AS/NZS 1716 should be worn when working in liquid mists or dusts. Respirators should be correctly fitted, maintained in good condition, and kept in clean storage when not in use. Replaceable filters and cartridges should be replaced regularly in accordance with the manufacturers' guidelines and Australian Standards AS/NZS 1715 and AS/NZS 1716. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly, and kept in clean storage when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless to pale yellow liquid
Odour:	Faint caramel odour
pH, at stated concentration:	Not available
Vapour pressure:	Not determined
Vapour Density:	Not determined
Boiling Point/range: (°C)	>105°C
Freezing/Melting Point: (°C)	Not applicable
Solubility in water:	Totally miscible
Solubility (Other):	Not applicable
Specific gravity: (H₂O = 1)	1.33
Evaporation Rate:	Not applicable
Flammability Limits:	Not applicable
Flash Point:	Not applicable
Autoignition temperature:	500°C after evaporation of water

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable
Incompatible Materials:	Incompatible with oxidising agents (eg. peroxides).
Conditions to avoid:	None
Hazardous Decomposition products:	None
Hazardous Polymerisation:	None

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data: non-toxic – a foodstuff
Sucrose: LD50 (Ingestion): 29,700 mg/kg (rat)

Health Effects

Acute (short term).

Swallowed:	No health effects under normal conditions of industrial use, but ingestion may destabilise people with diabetes.
Eye:	Irritating to the eyes and may cause watering and redness.
Skin:	Skin contact may result in mild skin irritation.
Inhaled:	Not applicable unless aerosolised into liquid mists which may cause irritation to nose and throat.
Chronic:	Repeated skin exposure to Liquid Sugar may result in skin irritation and if persistent, dermatitis which may become infected.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Non-toxic to aquatic and terrestrial organisms.

Persistence and Degradability: Product is persistent and would have a low degradability.

Mobility: A low mobility would be expected in a landfill situation.

SECTION 13: DISPOSAL CONSIDERATIONS

Liquid Sugar can be treated as a common waste for disposal or dumped into a landfill site in accordance with relevant authority guidelines. Note BOD load of sugar solutions in waste water streams.

Personal precautions should be observed (see Section 8 above).

SECTION 14: TRANSPORT INFORMATION

Transport Requirements:	No special transport requirements are necessary.
UN number:	None allocated
Class:	None allocated
Subsidiary Risk 1:	None allocated
Packaging Group:	None allocated
Hazchem code:	None allocated
DG Class:	None allocated
EPG:	None
Incompatibilities:	None
Proper Shipping Name:	None allocated
Marine Pollutant:	No

SECTION 15: REGULATORY INFORMATION

Poisons Schedule: None scheduled

SECTION 16: OTHER INFORMATION

Emergency Contact Number: Poisons Information Centre 13 11 26

For further information on this product, please contact the following:

Sugar Australia Pty Limited

ABN 82 081 245 169

265 Whitehall St Yarraville VIC 3013 Australia

Telephone: 61 3 9283 4558

Facsimile: 61 3 9689 4085

Additional information:

Australian Standards References:

AS/NZS 1336 Recommended Practices for Occupational Eye Protection.

AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices.

AS/NZS 1716 Respiratory Protective Devices.

AS 2161 Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)], April 2003, National Occupational Health and Safety Commission.

Authorised by: Sugar Australia Pty Ltd

Date of issue: June 2006

Whilst the information contained in this document is based on data which, to the best of our knowledge, was accurate and reliable at the time of preparation, no responsibility can be accepted by us for errors and omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by us for any loss or damage caused by any person acting or refraining from action as a result of this information.

END OF MSDS

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: FD&C BLUE 1 GRANULAR
Other Names: Brilliant Blue FCF
Product Number: 5700
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated.
Safety Phrase(s): None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Appropriate gloves should be worn when handling spillages. Place spilled material into waste containers for disposal in accordance with local state regulations.
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Apply according to good manufacturing and industrial hygiene practices.
Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated
Biological Limit Values: None known.
Engineering Controls: Use only in well ventilated area
Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue powder
Odour: Characteristic
pH: Not Found
Vapour Pressure: Not Found
Boiling Point/Melting Point (oC): Not Found
Specific Gravity (G/L): N/A
Flash Point (oC): >65
Flammability Limits: Not Found
Solubility in Water: Water soluble

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Dangerous Goods Class: None allocated
Packing Group: None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 23/01/2007

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: FD&C RED 40 POWDER
Other Names: None
Product Number: 7700
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
FD&C Red No. 40	25956-17-6	

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Water, chemical foam or dry chemical extinguisher.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Appropriate gloves should be worn when handling spillages. Place spilled material into waste containers for disposal in accordance with local state regulations.
Spills & Disposal: If dry, shovel, vacuum or sweep color up for disposal. If wet, surfaces exposed to a spill may become slippery or sticky. Spills should be thoroughly

flushed with soapy water until all apparent color is removed. Sanitary landfill in accordance with Local, State and Federal regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Apply according to good manufacturing and industrial hygiene practices.
Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated
Biological Limit Values: None allocated
Engineering Controls: Use only in well ventilated area
Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Reddish brown powder.
Odour: Not applicable
pH: Not applicable
Vapour Pressure: Not Found
Boiling Point/Melting Point (oC): Not Found
Specific Gravity (G/L): Not applicable
Flash Point (oC): Not applicable
Flammability Limits: Not Found
Solubility in Water: Water Soluble

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated

Dangerous Goods Class: None allocated
Packing Group: None allocated
Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 25/07/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: AUS PASSIONFRUIT COMPOUND
Other Names: None
Product Number: 60509
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S:(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	87%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to amber coloured liquid

Odour: Passionfruit

pH: Not determined

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.84

Flash Point (oC): 18°C

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S:(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	2/10/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: LIME ESSENCE
Other Names: Extracts, Flavouring, Liquid
Product Number: 60517
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S:(2) - 7 - 16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	>95%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Keep out of the reach of children. Keep away from heat and sources of ignition.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated.

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to straw coloured liquid.

Odour: Typical of lime. Free from off or objectionable flavours.

pH: N/A

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.81

Flash Point (oC): 14

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S: (2) - 7 - 16

16. OTHER INFORMATION

MSDS Date of Issue:	20/05/2003

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ORANGE FLAV SOLUBLE
Other Names: Extracts, Flavouring, Liquid
Product Number: 61128
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S:(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	54%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear pale orange to amber coloured liquid.

Odour: Characteristic

pH: Not Found

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.89

Flash Point (oC): 20°C

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3[Y]E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S:(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	2/08/2005

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: LIME COLOUR POWDER BLEND
Other Names: None
Product Number: 64278
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: None allocated
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	None allocated
Conditions for Safe Storage:	Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	None allocated
Biological Limit Values:	None allocated
Engineering Controls:	Use only in well ventilated area
Personal Protective Equipment:	Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green Colour powder blend
Odour:	Not found
pH:	N/A
Vapour Pressure:	Not Found
Boiling Point/Melting Point (oC):	Not Found
Specific Gravity (G/L):	N/A
Flash Point (oC):	>65
Flammability Limits:	Not Found
Solubility in Water:	Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated
Packing Group:	None allocated
Hazchem Code:	None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 2/02/2001

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: TUMERIC CONCENTRATE 633
Other Names: None
Product Number: 65073
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: None allocated
Spills & Disposal: Surfaces exposed to spill may become slippery or sticky. Spills should be thoroughly flushed with soapy water until all apparent spillage is removed.
Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	None allocated
Conditions for Safe Storage:	Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	None allocated
Biological Limit Values:	None allocated
Engineering Controls:	Use only in well ventilated area
Personal Protective Equipment:	Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber brown, viscous liquid.
Odour:	Not found
pH:	N/A
Vapour Pressure:	Not Found
Boiling Point/Melting Point (oC):	Not Found
Specific Gravity (G/L):	Not determined
Flash Point (oC):	>65
Flammability Limits:	Not Found
Solubility in Water:	Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated
Packing Group:	None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 7/07/2005

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: PEACH FLAVOUR XF0529 X

Other Names: Extracts, Flavouring, Liquid

Product Number: 65539

Recommended Use: Concentrated food ingredient, and not intended for use undiluted. Intended for manufacturing purposes only.

Company: Sensient Technologies Australia Pty Ltd

Address: 30-40 Kirkham Road West

Telephone Number: 613 9798 3011

Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.

Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.

Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.

Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.

Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Use a mask, gloves and protective clothing. Limit leakages with earth or sand. If the product is in a liquid form, stop it from entering the drainage system. After the product have been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: A clear colourless to tinged coloured liquid.

Odour: Typical of Peach

pH: Not Found

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.93

Flash Point (oC): 40°C

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	III
Hazchem Code:	3[Y]

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	None allocated

Safety Phrase(s):	None allocated

16. OTHER INFORMATION

MSDS Date of Issue:	4/02/2003

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: VANILLA FLAVOUR NATURAL XF1050
Other Names: None allocated
Product Number: 65586
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S: (2) - 7 - 16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	<97%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Use a mask, gloves and protective clothing. Limit leakages with earth or sand. If the product is in a liquid form, stop it from entering the drainage system. After the product have been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Typical of Vanilla

pH: N/A

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.82

Flash Point (oC): 16°C

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	18/09/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ORANGE EMULSION X
Other Names: None
Product Number: 65653
Recommended Use: Concentrated food ingredient, and not intended for use undiluted. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Acetal (2002)	105-57-7	<0.002%
Acetaldehyde 98% (2003)	75-07-0	<0.2%
Alcohol C-6 (2567)	111-27-3	<0.02%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.
Spills & Disposal:	For small spills wash with plenty of water. For large spills, contain with absorbent material such as sand or vermiculite. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.
Conditions for Safe Storage:	Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	None allocated
Biological Limit Values:	None allocated
Engineering Controls:	Use only in well ventilated area
Personal Protective Equipment:	Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Opaque yellow to orange coloured liquid
Odour:	Typical of fresh orange.
pH:	Not Found
Vapour Pressure:	Not Found
Boiling Point/Melting Point (oC):	Not Found
Specific Gravity (G/L):	0.99
Flash Point (oC):	>60.5
Flammability Limits:	Not Found
Solubility in Water:	Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated
Packing Group:	None allocated
Hazchem Code:	None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	None allocated
Safety Phrase(s):	None allocated

16. OTHER INFORMATION

MSDS Date of Issue:	13/02/2007

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: LEMON LIME XF1276
Other Names: None
Product Number: 65682
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: None allocated

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: None allocated

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Typical of standard.

pH: N/A

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.83

Flash Point (oC): 17 deg C

Flammability Limits: Not Found

Solubility in Water: Not Determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated
Packing Group:	None allocated
Hazchem Code:	None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	None allocated
Safety Phrase(s):	None allocated

16. OTHER INFORMATION

MSDS Date of Issue:	19/03/2004

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CRANBERRY APPLE FLAVOUR XF1277
Other Names: Extracts, Flavouring, Liquid
Product Number: 65683
Recommended Use: Concentrated food ingredient, and not intended for use undiluted. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S:(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	<15%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Typical of cranberry/apple.

pH: Not Found

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 1.008

Flash Point (oC): 40°C (Closed Cup)

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	III
Hazchem Code:	3[Y]

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S:(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	13/02/2007

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: BERRY FLAVOUR NATURAL
Other Names: None
Product Number: 65787
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.
Spills & Disposal: Inert material such as sand or saw dust or earth may be added. Place spilled material into appropriate waste containers for disposal in accordance with local state regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.
Conditions for Safe Storage:	Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	None allocated
Biological Limit Values:	None allocated
Engineering Controls:	Use only in well ventilated area.
Personal Protective Equipment:	Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colourless to tinged coloured liquid.
Odour:	Typical of berry.
pH:	Not Found
Vapour Pressure:	Not Found
Boiling Point/Melting Point (oC):	Not Found
Specific Gravity (G/L):	1.05
Flash Point (oC):	80
Flammability Limits:	Not Found
Solubility in Water:	Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated

Packing Group: None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 8/09/2005

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: LEMON EMULSION X
Other Names: None
Product Number: 65852
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: None allocated
Spills & Disposal: For small spills wash with plenty of water. For large spills, contain with absorbent material such as sand or vermiculite. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	None allocated
Conditions for Safe Storage:	Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	None allocated
Biological Limit Values:	None allocated
Engineering Controls:	Use only in well ventilated area
Personal Protective Equipment:	Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Opaque white liquid emulsion
Odour:	Typical of juicy lemon.
pH:	3.5
Vapour Pressure:	Not Found
Boiling Point/Melting Point (oC):	Not Found
Specific Gravity (G/L):	1.057
Flash Point (oC):	>65
Flammability Limits:	Not Found
Solubility in Water:	Water Soluble

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	None allocated
Dangerous Goods Class:	None allocated

Packing Group: None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 24/10/2005

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: GRAPEFRUIT FLAVOUR
Other Names: Extracts, Flavouring, Liquid
Product Number: 65875
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	54%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Typical of grapefruit

pH: N/A

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.895

Flash Point (oC): 22

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	14/02/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: GRAPEFRUIT FLAVOUR
Other Names: Extracts, Flavouring, Liquid
Product Number: 65875
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	54%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Typical of grapefruit

pH: N/A

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.895

Flash Point (oC): 22

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S(2)-7-16

16. OTHER INFORMATION

MSDS Date of Issue:	14/02/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: TONIC FLAVOUR
Other Names: Extracts, Flavouring, Liquid
Product Number: 65879
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): R11
Safety Phrase(s): S:(2)-7-16

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ethyl Alcohol	64-17-5	85%

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
Inhaled: Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

Flammability: Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Ensure adequate ventilation in working areas following accidental releases. Avoid inhalation of smoke and fumes. Follow spills and disposal procedures.

Spills & Disposal: Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid inhalation and contact with skin and eyes. Apply according to good manufacturing practices with proper ventilation.

Conditions for Safe Storage: Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values: None allocated

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear colourless to tinged coloured liquid.

Odour: Characteristic

pH: Not Found

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): 0.85

Flash Point (oC): 16

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number:	1197
UN Proper Shipping Name:	Extracts, Flavouring, Liquid
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	3(Y)E

15. REGULATORY INFORMATION

Poisons Schedule Number:	None allocated

International Regulations for Labelling:

Risk Phrase(s):	R11
Safety Phrase(s):	S: (2) - 7-16

16. OTHER INFORMATION

MSDS Date of Issue:	8/08/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: 319008 EUROGRAN CARMOISINE
Other Names: None
Product Number: 319008
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Food Red 3	3567-69-9	

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Appropriate gloves should be worn when handling spillages. Place spilled material into waste containers for disposal in accordance with local state regulations.
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Apply according to good manufacturing and industrial hygiene practices.
Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated
Biological Limit Values: None allocated
Engineering Controls: Use only in well ventilated area
Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark red granules
Odour: Not Applicable
pH: Not Applicable
Vapour Pressure: Not Found
Boiling Point/Melting Point (oC): Not Found
Specific Gravity (G/L): Not Applicable
Flash Point (oC): >60.5
Flammability Limits: Not Found
Solubility in Water: Water soluble.

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Dangerous Goods Class: None allocated
Packing Group: None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 9/06/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EUROGRAN AMARANTH
Other Names: None
Product Number: 319103
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s):
Safety Phrase(s):

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe lation using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values:

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark Red granules

Odour:

pH:

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): N/A

Flash Point (oC): >65

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated

UN Proper Shipping Name:

Dangerous Goods Class: None allocated

Packing Group:

Hazchem Code: None allocated

Material Safety Data Sheet According to NOHSC:2011(2003)

EUROGRAN AMARANTH

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s):

Safety Phrase(s):

16. OTHER INFORMATION

MSDS Date of Issue: 5/02/2001

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EUROGRAN PONCEAU 4R
Other Names: None
Product Number: 319104
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s):
Safety Phrase(s):

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
Ponceau 4R	2611-82-7	

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe lation using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated

Biological Limit Values:

Engineering Controls: Use only in well ventilated area

Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red Granules

Odour:

pH:

Vapour Pressure: Not Found

Boiling Point/Melting Point (oC): Not Found

Specific Gravity (G/L): N/A

Flash Point (oC): NA

Flammability Limits: Not Found

Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated

UN Proper Shipping Name:

Dangerous Goods Class: None allocated

Packing Group:

Hazchem Code: None allocated

Material Safety Data Sheet According to NOHSC:2011(2003)

EUROGRAN PONCEAU 4R

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s):

Safety Phrase(s):

16. OTHER INFORMATION

MSDS Date of Issue: 5/09/2002

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EUROGRAN TARTRAZINE
Other Names: None
Product Number: 319105
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated
Safety Phrase(s): None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable under conditions of use.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Appropriate gloves should be worn when handling spillages. Place spilled material into waste containers for disposal in accordance with local state regulations.
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Apply according to good manufacturing and industrial hygiene practices.
Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated
Biological Limit Values: None known.
Engineering Controls: Use only in well ventilated area
Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow orange granules
Odour: Characteristic
pH: Not applicable
Vapour Pressure: Not Found
Boiling Point/Melting Point (oC): Not Found
Specific Gravity (G/L): N/A
Flash Point (oC): >60.5
Flammability Limits: Not Found
Solubility in Water: Water soluble

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Dangerous Goods Class: None allocated
Packing Group: None allocated

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated

Safety Phrase(s): None allocated

16. OTHER INFORMATION

MSDS Date of Issue: 11/08/2006

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: EUROGRAN SUNSET YELLOW
Other Names: None
Product Number: 319107
Recommended Use: Concentrated food ingredient. Intended for manufacturing purposes only.
Company: Sensient Technologies Australia Pty Ltd
Address: 30-40 Kirkham Road West
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

2. HAZARDS IDENTIFICATION

Hazard Classification: Not classified as Hazardous according to criteria of Worksafe Australia.
Risk Phrase(s): None allocated.
Safety Phrase(s): None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion

4. FIRST AID MEASURES

Swallowed: Rinse mouth with water. Seek medical advice.
Eye: Flush with plenty of water for at least 10 minutes and seek medical advice.
Skin: Remove contaminated clothes, wash with soap and water.
Inhaled: If affected remove to fresh air.
Advice To Doctor: Treat symptomatically

5. FIRE FIGHTING MEASURES

Fire/Explosion Hazard: Fight fire from safe location using Fog, Foam, CO2 or dry chemical medium.
Flammability: Not flammable.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Appropriate gloves should be worn when handling spillages. Place spilled material into waste containers for disposal in accordance with local state regulations.
Spills & Disposal: Shovel, vacuum or sweep up for disposal. Disposal: Bury on authorised land fill site under controlled conditions with local legislation.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Apply according to good manufacturing and industrial hygiene practices.
Conditions for Safe Storage: Store in tightly sealed containers in a cool dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: None allocated
Biological Limit Values: None allocated.
Engineering Controls: Use only in well ventilated area
Personal Protective Equipment: Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange red granules
Odour: Characteristic
pH: Not Found
Vapour Pressure: Not Found
Boiling Point/Melting Point (oC): Not Found
Specific Gravity (G/L): N/A
Flash Point (oC): >65
Flammability Limits: Not Found
Solubility in Water: Not determined

10. STABILITY AND REACTIVITY

Good stability under normal temperature and pressure. Avoid temperatures above or near to the flash point. Store away from incompatible materials, ignition sources and excess heat. Avoid contact with oxidising agents.

11. TOXICOLOGICAL INFORMATION

This material has not been subjected to toxicological testing as an entity.

12. ECOLOGICAL INFORMATION

This material has not been subjected to ecological testing as an entity. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of under applicable Local, State and Federal regulations.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated.
Dangerous Goods Class: None allocated
Packing Group: None allocated.

Hazchem Code: None allocated

15. REGULATORY INFORMATION

Poisons Schedule Number: None allocated

International Regulations for Labelling:

Risk Phrase(s): None allocated.

Safety Phrase(s): None allocated.

16. OTHER INFORMATION

MSDS Date of Issue: 8/05/2007

Literature References:

The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or preparation

503799 C
CRANBERRY

1.2 Intended use

Concentrated aromatic raw material.
Not for personal use in this form or concentration.
For manufacturing use only.

1.3 Company/undertaking identification

Mr Norman Suryadi
Firmenich Ltd
73 Kenneth Road
Balgowlah NSW 2093 - AUSTRALIA
Tel.: +61.2.99.07.93.44 - Fax.: +61.2.99.07.97.21 - norman.suryadi@firmenich.com
Emergency phone number:
Monday -Friday, 8:00 a.m. - 5:00 p.m: (+61) 02 9907 9344
After hours: (+61) 0419 227 895

1.4 Other name

Proper Shipping Name : N/A .

2 HAZARDS IDENTIFICATION

Not classified as hazardous according to NOHSC approved criteria.

Classification in accordance NOHSC approved criteria, including voluntary classification for environmental hazards according to [NOHSC:1008(2004)] Appendix 7.

Risk phrases

Safety phrases

3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of aromatic substances.

Contains :

< 10.0% limonene - Xi N -R10-R38-R43-R50/53
N° CAS : 0000138-86-3 / N° EINECS: 205-341-0

99.0 - 100.0% Non hazardous ingredients



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

4 FIRST-AID MEASURES

Skin exposure

Remove contaminated clothes. Wash skin with large volumes of water (or soap and water).
If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.

Eye exposure

Irrigate copiously with water for at least 10 minutes. Obtain medical advice if any irritation
or evidence of tissue damage persists.

Accidental ingestion

Rinse mouth with water. Give up to one tumbler (half pint) of milk or water. Obtain medical advice immediately.

Excessive inhalation

Remove the individual to fresh air and keep at rest. Obtain medical advice immediately.

General comments

As in all cases of potential poisoning, supportive therapy is of the utmost importance.

5 FIRE-FIGHTING MEASURES

In the event of fire, dry powder, carbon dioxide, alcohol-resistant foam or water mist extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Gloves (natural rubber if possible), safety glasses, goggles, face masks and protective clothing should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).

Avoid skin contamination and inhalation of vapour.

Good personal washing routines should be followed after accidental releases.

Ensure adequate ventilation in working areas following accidental releases.

6.2 Environmental precautions

Do not discharge directly into drains, into soil or into the aquatic environment.

6.3 Methods for cleaning up

Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration as some cases of spontaneous combustion of rags soaked with similar materials have been reported.

Gross spillages should be contained by the use of sand or inert powder, and disposal of this should be in accordance with Government Regulations.

Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

7.1 Handling

Avoid contact with skin and eyes.

Wear suitable gloves (natural rubber is the preferred material) and eye/face protection.

No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

Do not subject to unnecessarily high temperature during processing.
Do not ingest or apply to the skin as such. Good personal washing routines should be followed.
Maintain adequate ventilation in working areas.

7.2 Storage

It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 National Exposure Standards

no exposure standard allocated

8.2 Exposure controls

Do not subject to unnecessarily high temperature during processing.
Maintain adequate ventilation in working areas.

8.3 Personal protection

- Respiratory protection: where ventilation may be inadequate, or where uncontained aerosols may be formed, wear self-contained breathing apparatus.
- Hand protection: where gloves are indicated, natural rubber is the preferred material.
- Eye protection: where eye protection is indicated, safety goggles are recommended.
- Skin protection: depending on working situation these should include wearing protective clothing, which will also limit the odour contamination of personal clothing. Good personal washing routines should be followed.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance : OILY AND LIMPID LIQUID

Odour : Characteristic strong odour according to the commercial description of the substance.

Colour : COLOURLESS

Flash point (closed cup) : = 77°C

Relative density (d 20/20) : 1.036 - 1.046

pH :

Boiling point/boiling range : not available

Melting point/melting range : not available

Autoflammability :

Explosive properties :

Oxidizing properties :

Vapour pressure (Pa) :

Partition coefficient (n-octanol/water) :

Water solubility (20°C) :

10 STABILITY AND REACTIVITY

Good stability at standard temperature. Avoid temperatures above or near to the flash point.
Do not heat closed containers. No reaction known with water. Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products. Avoid contact with oxidizing agents.

11 TOXICOLOGICAL INFORMATION



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

This preparation has not been subjected to toxicological testing as an entity but has been blended from materials with established toxicological bibliographies. In view of the difficulty of using current standard toxicological evaluation techniques to predict potential hazards to susceptible individuals or arising from unforeseeable potentiation, this preparation should be considered and handled as if it displayed health hazards and treated in consequence with all possible precaution.

12 ECOLOGICAL INFORMATION

This preparation has not been subjected to ecotoxicological testing as an entity. In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact of particular modes of release on vulnerable or localised parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards, and treated in consequence with all possible precaution.

13 DISPOSAL CONSIDERATIONS

Residual quantities of the product should be treated according to the instructions given under points 6, 7 and 8 above. Wastes should be eliminated according to national or regional regulatory requirements currently in force.

14 TRANSPORT INFORMATION

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7 and 8 above.

14.1 UNO

UN number:	Not regulated
UN hazard class:	----
UN packing group:	---
Proper Shipping Name:	N/A .

14.2 ADR/RID

UN-Nr:	Not regulated
Class:	----
PG:	---

14.3 IMDG

UN-Nr:	Not regulated
Class:	----
PG:	---

14.4 ICAO/IATA

UN/ID-Nr:	Not regulated
Class:	----
PG:	---

14.5 Hazchem Code :

15 REGULATORY INFORMATION

Not classified as hazardous according to NOHSC approved criteria.



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

15.2 Conveyance classification: (see point 14.)

16 OTHER INFORMATION

16.1 Intended use

Concentrated aromatic raw material.
Not for personal use in this form or concentration.
For manufacturing use only.

16.2 Recommended uses and restrictions

For further information, please refer to specific advice provided in technical data sheets or available from the manufacturer at the address indicated.

**We believe that the information contained herein is current as of the date of this Safety Data Sheet.
Since the use of this information and the conditions of use of the product are not within the control of Firmenich, it is the user's obligation to determine conditions of safe use of the product.**



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or preparation

591279 C
MANGO

1.2 Intended use

Concentrated aromatic raw material.
Not for personal use in this form or concentration.
For manufacturing use only.

1.3 Company/undertaking identification

Mr Norman Suryadi
Firmenich Ltd
73 Kenneth Road
Balgowlah NSW 2093 - AUSTRALIA
Tel.: +61.2.99.07.93.44 - Fax.: +61.2.99.07.97.21 - norman.suryadi@firmenich.com
Emergency phone number:
Monday -Friday, 8:00 a.m. - 5:00 p.m: (+61) 02 9907 9344
After hours: (+61) 0419 227 895

1.4 Other name

Proper Shipping Name : N/A .

2 HAZARDS IDENTIFICATION

Not classified as hazardous according to NOHSC approved criteria.

Classification in accordance NOHSC approved criteria, including voluntary classification for environmental hazards according to [NOHSC:1008(2004)] Appendix 7.

Risk phrases

Safety phrases

3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of aromatic substances.

Contains :

< 10.0% Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl- - Xn N -R43-R50/53-R65
N° CAS : 0000080-56-8 / N° EINECS: 201-291-9

99.0 - 100.0% Non hazardous ingredients



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

4 FIRST-AID MEASURES

Skin exposure

Remove contaminated clothes. Wash skin with large volumes of water (or soap and water).
If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.

Eye exposure

Irrigate copiously with water for at least 10 minutes. Obtain medical advice if any irritation
or evidence of tissue damage persists.

Accidental ingestion

Rinse mouth with water. Give up to one tumbler (half pint) of milk or water. Obtain medical advice immediately.

Excessive inhalation

Remove the individual to fresh air and keep at rest. Obtain medical advice immediately.

General comments

As in all cases of potential poisoning, supportive therapy is of the utmost importance.

5 FIRE-FIGHTING MEASURES

In the event of fire, dry powder, carbon dioxide, alcohol-resistant foam or water mist extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Gloves (natural rubber if possible), safety glasses, goggles, face masks and protective clothing should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).
Avoid skin contamination and inhalation of vapour.
Good personal washing routines should be followed after accidental releases.
Ensure adequate ventilation in working areas following accidental releases.

6.2 Environmental precautions

Do not discharge directly into drains, into soil or into the aquatic environment.

6.3 Methods for cleaning up

Any absorbent used for cleaning up spillage should be disposed promptly, preferably by incineration as some cases of spontaneous combustion of rags soaked with similar materials have been reported.
Gross spillages should be contained by the use of sand or inert powder, and disposal of this should be in accordance with Government Regulations.
Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

7.1 Handling

Avoid contact with skin and eyes.
Wear suitable gloves (natural rubber is the preferred material) and eye/face protection.
No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

Do not subject to unnecessarily high temperature during processing.
Do not ingest or apply to the skin as such. Good personal washing routines should be followed.
Maintain adequate ventilation in working areas.

7.2 Storage

It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 National Exposure Standards

no exposure standard allocated

8.2 Exposure controls

Do not subject to unnecessarily high temperature during processing.
Maintain adequate ventilation in working areas.

8.3 Personal protection

- Respiratory protection: where ventilation may be inadequate, or where uncontained aerosols may be formed, wear self-contained breathing apparatus.
- Hand protection: where gloves are indicated, natural rubber is the preferred material.
- Eye protection: where eye protection is indicated, safety goggles are recommended.
- Skin protection: depending on working situation these should include wearing protective clothing, which will also limit the odour contamination of personal clothing. Good personal washing routines should be followed.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance : OILY AND LIMPID LIQUID

Odour : Characteristic strong odour according to the commercial description of the substance.

Colour : COLOURLESS TO PALE YELLOW

Flash point (closed cup) : = 88°C

Relative density (d 20/20) : 1.038 - 1.048

pH :

Boiling point/boiling range : not available

Melting point/melting range : not available

Autoflammability :

Explosive properties :

Oxidizing properties :

Vapour pressure (Pa) :

Partition coefficient (n-octanol/water) :

Water solubility (20°C) :

10 STABILITY AND REACTIVITY

Good stability at standard temperature. Avoid temperatures above or near to the flash point.
Do not heat closed containers. No reaction known with water. Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products. Avoid contact with oxidizing agents.

11 TOXICOLOGICAL INFORMATION



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

This preparation has not been subjected to toxicological testing as an entity but has been blended from materials with established toxicological bibliographies. In view of the difficulty of using current standard toxicological evaluation techniques to predict potential hazards to susceptible individuals or arising from unforeseeable potentiation, this preparation should be considered and handled as if it displayed health hazards and treated in consequence with all possible precaution.

12 ECOLOGICAL INFORMATION

This preparation has not been subjected to ecotoxicological testing as an entity. In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact of particular modes of release on vulnerable or localised parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards, and treated in consequence with all possible precaution.

13 DISPOSAL CONSIDERATIONS

Residual quantities of the product should be treated according to the instructions given under points 6, 7 and 8 above. Wastes should be eliminated according to national or regional regulatory requirements currently in force.

14 TRANSPORT INFORMATION

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7 and 8 above.

14.1 UNO

UN number:	Not regulated
UN hazard class:	----
UN packing group:	---
Proper Shipping Name:	N/A .

14.2 ADR/RID

UN-Nr:	Not regulated
Class:	----
PG:	---

14.3 IMDG

UN-Nr:	Not regulated
Class:	----
PG:	---

14.4 ICAO/IATA

UN/ID-Nr:	Not regulated
Class:	----
PG:	---

14.5 Hazchem Code :

15 REGULATORY INFORMATION

Not classified as hazardous according to NOHSC approved criteria.



Firmenich

Material Safety Data Sheet

According to NOHSC:2011(2003)

This Material Safety Data Sheet cancels and replaces all preceding MSDS for this product.

15.2 Conveyance classification: (see point 14.)

16 OTHER INFORMATION

16.1 Intended use

Concentrated aromatic raw material.
Not for personal use in this form or concentration.
For manufacturing use only.

16.2 Recommended uses and restrictions

For further information, please refer to specific advice provided in technical data sheets or available from the manufacturer at the address indicated.

**We believe that the information contained herein is current as of the date of this Safety Data Sheet.
Since the use of this information and the conditions of use of the product are not within the control of Firmenich, it is the user's obligation to determine conditions of safe use of the product.**

SAFETY DATA SHEET

AC 3 WS

Version: 1-AUS/EN

Revision Date: 14-12-2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: AC 3 WS

Material No.: 501606

Application: For food application.

Supplier: Chr. Hansen Pty Ltd
P.O. Box 591
3153 Bayswater, Victoria
Phone: +61 3 9762 9600

Emergency telephone: +61 3 9762 9600 (Monday through Friday, 8:00 AM to 5:00 PM)

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of NOHSC.

RISK PHRASES: None.

SAFETY PHRASES: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: food color.

Does not contain substances that must be indicated according to current regulations.

4. FIRST-AID MEASURES

Inhalation: Move into fresh air and keep at rest.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart.

Ingestion: Rinse mouth thoroughly. If uncomfortable: Get medical attention.

SAFETY DATA SHEET

AC 3 WS

Version: 1-AUS/EN

Revision Date: 14-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a stylized green diamond shape.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Specific hazards:	No specific precautions.
Protective equipment for fire-fighters:	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Follow precautions for safe handling described in this safety data sheet. For personal protection, see section 8.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Spill Cleanup Methods:	Flush away small spillages with plenty of water. Large quantities: Absorb spillage with suitable absorbent material. Flush contaminated area with plenty of water. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Safe handling advice:	Observe good industrial hygiene practices.
Technical measures:	Keep the workplace clean.
Technical precautions:	No special precautions.
Technical measures for safe storage:	No special precautions.
Storage conditions:	Store in tightly closed original container at a temperature: 4 - 8 °C / 39 - 46 °F. Protect against direct sunlight. Store in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Provide adequate ventilation. Minimise the risk of inhalation of vapours and mist.
Hand protection:	Nitrile gloves are recommended. Other types of gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Eye protection:	Risk of contact: Wear goggles/face shield.
Skin protection:	No special precautions.
Hygiene measures:	Wash hands after contact.
Environmental Exposure Controls:	None.

SAFETY DATA SHEET

AC 3 WS

Version: 1-AUS/EN

Revision Date: 14-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Dark red
Odour:	Characteristic
pH:	2.2 - 3.2
Melting point (°C):	Not relevant
Boiling point (°C):	Not relevant
Decomposition temperature (°C):	Not relevant
Flash point (°C):	Not relevant
Explosive properties:	Not relevant
Relative density:	1.15
Solubility:	Water soluble

10. STABILITY AND REACTIVITY

Stability:	Stable under normal temperature conditions and recommended use.
Conditions/materials to avoid:	Avoid exposure to high temperatures or direct sunlight.
Hazardous decomposition products:	None known.

11. TOXICOLOGICAL INFORMATION

Inhalation:	Not relevant at normal room temperatures.
Skin contact:	Prolonged contact may cause redness, irritation and cracking.
Eye contact:	May cause temporary eye irritation.
Ingestion:	May irritate and cause malaise.
Specific effects:	None known.

12. ECOLOGICAL INFORMATION

Mobility:	The product is water soluble and may spread in water systems.
Degradability:	The product is expected to be biodegradable.
Ecotoxicity:	The harmful effects of the product in the environment are considered to be limited.
Bioaccumulative potential:	Bioaccumulation: Is not expected to be bioaccumulable.
Other adverse effects:	None known.

SAFETY DATA SHEET

AC 3 WS

Version: 1-AUS/EN

Revision Date: 14-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADG).

15. REGULATORY INFORMATION

Poison Schedule Number: No Poisons Schedule number allocated.

Hazard Category: Not classified.

Specific Provisions: Local State and Territory regulation may apply.

16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

Revision Date: 14-12-2006

Wording of Risk Phrases

-

References: National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, NOHSC:2011(2003).
Approved Criteria for Classifying Hazardous Substances, NOHSC:1008(2004).
List of Designated Hazardous Substances, NOHSC:10005(1999).

The information in this Safety Data Sheet has been obtained from current and reliable sources. However, the data is provided without warranty, express or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss injury, damage, or expense resulting from improper use of this product.

SAFETY DATA SHEET

AC 12r WSP

Version: 1-AUS/EN

Revision Date: 18-12-2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: AC 12r WSP

Material No.: 601412

Application: For food application.

Supplier: Chr. Hansen Pty Ltd
P.O. Box 591
3153 Bayswater, Victoria
Phone: +61 3 9762 9600

Emergency telephone: +61 3 9762 9600 (Monday through Friday, 8:00 AM to 5:00 PM)

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of NOHSC.

RISK PHRASES: None.

SAFETY PHRASES: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: food color.

Does not contain substances that must be indicated according to current regulations.

SAFETY DATA SHEET

AC 12r WSP

Version: 1-AUS/EN

Revision Date: 18-12-2006

CHR HANSEN

4. FIRST-AID MEASURES

Inhalation:	Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and take along these instructions.
Skin contact:	Remove contaminated clothes and rinse skin thoroughly with water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
Eye contact:	Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion:	Rinse mouth thoroughly. If uncomfortable: Get medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Specific hazards:	No specific precautions.
Protective equipment for fire-fighters:	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid generation and spreading of dust. Follow precautions for safe handling described in this safety data sheet. Avoid contact with eyes. Avoid inhalation of dust. For personal protection, see section 8.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Spill Cleanup Methods:	Use a vacuum cleaner. If not possible, moisten dust with water before it is collected with shovel, broom or the like. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Safe handling advice:	Avoid inhalation of dust. Avoid contact with eyes. Observe good industrial hygiene practices.
Technical measures:	Keep the workplace clean. Use mechanical ventilation in case of handling which causes formation of dust. Use work methods which minimise dust production. Take precautionary measures against static discharges when there is a risk of dust explosion.
Technical precautions:	Local exhaust is recommended.
Technical measures for safe storage:	Comply with the regulations on protection against dust explosions.
Storage conditions:	Store in closed original container at temperatures between: 0 - 30 °C / 32 - 86 °F. Protect against direct sunlight. Store in a dry place.

SAFETY DATA SHEET

AC 12r WSP

Version: 1-AUS/EN

Revision Date: 18-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust.
Respiratory equipment:	In case of inadequate ventilation: Use respiratory equipment with particle filter, type P1. The use of filtering respirators should be limited to max. 3 hours per day.
Hand protection:	Gloves are recommended for prolonged use.
Eye protection:	Use tight fitting goggles if dust is generated.
Skin protection:	No special precautions.
Hygiene measures:	Wash hands after contact.
Environmental Exposure Controls:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Colour:	Dark red
Odour:	Characteristic
pH:	Not relevant
Melting point (°C):	Not relevant
Boiling point (°C):	Not relevant
Decomposition temperature (°C):	Not relevant
Flash point (°C):	Not relevant
Explosive properties:	Not relevant
Relative density:	0.35
Solubility:	Water soluble

10. STABILITY AND REACTIVITY

Stability:	Stable under normal temperature conditions and recommended use.
Conditions/materials to avoid:	Humidity and direct sunlight.
Hazardous decomposition products:	None under normal conditions.

SAFETY DATA SHEET

AC 12r WSP

Version: 1-AUS/EN

Revision Date: 18-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

11. TOXICOLOGICAL INFORMATION

Inhalation:	Dust may irritate respiratory system.
Skin contact:	Dust has an irritating effect on moist skin.
Eye contact:	Dust in the eyes will cause irritation.
Ingestion:	May irritate and cause malaise.
Specific effects:	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

12. ECOLOGICAL INFORMATION

Mobility:	The product is water soluble and may spread in water systems.
Degradability:	The product is expected to be biodegradable.
Ecotoxicity:	The environmental hazard of the product is considered to be limited.
Bioaccumulative potential:	Bioaccumulation: Is not expected to be bioaccumulable.
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADG).

15. REGULATORY INFORMATION

Poison Schedule Number:	No Poisons Schedule number allocated.
Hazard Category:	Not classified.
Specific Provisions:	Local State and Territory regulation may apply.

SAFETY DATA SHEET

AC 12r WSP

Version: 1-AUS/EN

Revision Date: 18-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. A small green diamond is positioned below the 'H' in HANSEN.

16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision Date: 18-12-2006

Wording of Risk Phrases

-

References: National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, NOHSC:2011(2003).
List of Designated Hazardous Substances, NOHSC:10005(1999).
Approved Criteria for Classifying Hazardous Substances, NOHSC:1008(2004).

The information in this Safety Data Sheet has been obtained from current and reliable sources. However, the data is provided without warranty, express or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss injury, damage, or expense resulting from improper use of this product.



Material Safety Data Sheet

ACETYLENE, Compressed Dissolved (C2H2)

Infosafe No. 8AEFA **Issue Date** April 2003 **Status** ISSUED by AIRLIQUI

Not classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name ACETYLENE, Compressed Dissolved (C2H2)

Product Use Acetylene is used as a fuel gas for oxy-welding, cutting, heating, hardening, flame cleaning, spalling of concrete, etc.

Company Name Air Liquide Australia Limited (ABN 57 004 385 782)

Address Level 9, 380 St. Kilda Road Melbourne
Victoria 3004

Emergency Tel. 1800 812588 (24hr)

Telephone Number/Fax Tel: (03) 9697 9888
Fax: (03) 9690 7107

Other Names	Name	Product Code
	Not applicable	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Acetylene	74-86-2	98-100 %

3. HAZARDS IDENTIFICATION

Heating may cause an explosion.
Explosive with or without contact with air.
Extremely Flammable.

Chronic Effects Long term exposure to acetylene has no known health effects.

Inhalation	Asphyxiant in high concentrations. Low concentrations (10-20% in air) cause symptoms similar to those of being intoxicated. Higher concentrations so as to exclude an adequate supply of oxygen to the lungs, causes unconsciousness. Symptoms of asphyxiation include rapid and gasping respiration, rapid fatigue and vomiting.
Ingestion	Unlikely route of exposure considering acetylene is gaseous at room temperature.
Skin	Unlikely route of exposure considering acetylene is gaseous at room temperature. Contact of liquid acetylene may cause temporary irritation.
Eye	Unlikely route of exposure considering acetylene is gaseous at room temperature. Contact of liquid acetylene may cause temporary irritation.

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. Apply artificial respiration if not breathing. Seek medical attention.
Ingestion	Unlikely route of exposure.
Skin	Wash affected area thoroughly with copious amounts of running water. Remove contaminated clothing and wash before reuse. If symptoms develop seek medical attention.
Eye	If in eyes wash out immediately with water. If symptoms persist seek medical attention.
First Aid Facilities	Eyewash and normal washroom facilities must be provided, and a safety shower is strongly recommended.
Advice to Doctor	Advise doctor that victim has been exposed to an oxygen deficient atmosphere and exposed to acetylene which is a known anaesthetic. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use dry agent, foam or water mist.
Specific Methods	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

Specific Hazards	Extremely flammable. Avoid all sources of ignition, heat and naked flames. Ensure adequate ventilation to prevent formation of an explosive mixture with air and flashback. Remove sources of re-ignition. Prevent build-up of electrostatic charges (i.e. by grounding). Containers may rupture/explode when heated.
Hazardous Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Precautions in connection with Fire	Use water spray to cool surrounding gas cylinders.
Flash Point	Not applicable
Ignition Temperature	305°C
Flammable Limits UEL	85%
Flammable Limits LEL	2.2%
Flammability	Extremely flammable substance. Remove all sources of ignition, heat and naked flames. May emit toxic fumes under fire conditions. Earth all containers to reduce the possibility of sparks from static electricity. May form flammable mixtures with air.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Evacuate all unnecessary personnel. Use self-contained breathing apparatus (S.C.B.A) and full protective clothing to minimise exposure. Allow gas to vent safely to atmosphere, preferably in well ventilated, remote location. Monitor oxygen concentration in confined spaces. Check for leaks using pressure drop test or soapy water on joints and outlets. Shut cylinder valve to stop leak if possible and safe to do so. Use non-sparking tools. Contact Air Liquide for emergency assistance. If leak is in equipment, purge thoroughly with inert gas prior to repair attempts.

7. HANDLING AND STORAGE

Handling	Disconnect regulator before transporting or storing cylinders. Cylinders should be moved by hand-truck or cart designed for that purpose. Avoid any contact with oil or grease particularly to the cylinder valve.
Storage	Storage of compressed gas cylinders shall be in compliance with State or Territory regulations. Cylinders shall be stored in a cool, dry, well ventilated area and away from heat and ignition sources. Outside or detached storage is preferred. No part of cylinders shall be exposed to temperatures above 55°C. Cylinders shall be stored upright on a level, fireproof floor, secure in position

and protected from damage. Full cylinders shall be stored separately from empties. Keep cylinder valve cover on. Label empty cylinders and store full cylinders separately from empty ones. Consider leak detection and alarm systems, as required. Limit quantity in storage. Restrict access to storage area and post warning signs. Inspect periodically for deficiencies such as damage or leaks. Have fire extinguishers available in and near the storage area. Comply with all applicable regulations for the storage and handling of compressed gases.

Acetylene in a free state under pressure may decompose with explosive violence. NEVER USE FREE GAS OUTSIDE THE CYLINDER AT PRESSURES EXCEEDING 150 kPa (GAUGE).

Acetylene is dissolved in acetone or other solvents under pressure and supplied in cylinders.

CYLINDER COLOUR: AS2700 R65 Claret.

CYLINDER VALVE OUTLET: AS 2473 Type 20.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material by the National Occupational Health And Safety Commission (NOHSC). Acetylene is an asphyxiant gas which, when present in an atmosphere in high concentrations, can lead to reduction of oxygen concentration by displacement or dilution. It is not appropriate to recommend an exposure standard for an asphyxiant, rather it should be required that a sufficient oxygen concentration be maintained.
Respiratory Protection	Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
Eye Protection	Safety glasses with side shields, goggles or full faceshield should be worn as described in Australian Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Impervious PVC or rubber gloves should be worn to avoid prolonged skin contact.
Body Protection	Suitable protective clothing should be worn e.g. cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended.
Eng. Controls	Do not reticulate at pressure > 150 kPa. (Acetylene can ignite by decomposition above 200 kPa). Provide ventilation to area of use to prevent accumulation of acetylene at flammable concentrations. Provide adequate local exhaust and dilution (general) ventilation and supply sufficient replacement air to maintain oxygen concentration above 18%.
Hygiene Measures	Ensure a high level of personal hygiene is maintained when using this product. Always wash hands before eating, drinking, smoking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless with a slight 'garlic' odour.
Melting Point	Not applicable.
Boiling Point	-75°C
Solubility in Water	1.72 m ³ /kg @ 0°C
Specific Gravity (H2O=1)	Not applicable
Vapour Pressure	Not applicable
Vapour Density (Air=1)	0.908 @ 15°C (air=1)
Density	1.113 kg/m ³ @ 101.3 kPa & 15°C
Flash Point	Not applicable
Flammability	Extremely flammable substance. Remove all sources of ignition, heat and naked flames. May emit toxic fumes under fire conditions. Earth all containers to reduce the possibility of sparks from static electricity. May form flammable mixtures with air.
Ignition Temperature	305°C
Flammable Limits LEL	2.2%
Flammable Limits UEL	85%
Molecular Weight	26.04
Other Information	Critical Temperature = 35.2°C

10. STABILITY AND REACTIVITY

Stability	UNSTABLE - shock sensitive in the liquid state. Do not allow free gas (outside of cylinder) to exceed 100 kPag. Do not expose cylinders to sudden shock or heat. Acetylene will decompose violently with cylinder failure.
Hazardous Polymerization	Temperatures as low as 121°C at high pressure, or at low pressure in the presence of a catalyst are sufficient to initiate a polymerisation reaction. The hazard here is that the polymerisation normally liberates heat and may,

therefore, lead to ignition and decomposition of acetylene if conditions permit.

Materials to Avoid

Oxygen and other oxidizers including all halogens and halogen compounds. Forms explosive acetylides with copper, mercury, silver, brassy materials containing >66% copper and brazing materials containing silver or copper.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data is available for this product.

Inhalation

Asphyxiant in high concentrations. Low concentrations (10-20% in air) cause symptoms similar to those of being intoxicated. Higher concentrations so as to exclude an adequate supply of oxygen to the lungs, causes unconsciousness. Symptoms of asphyxiation include rapid and gasping respiration, rapid fatigue and vomiting.

Ingestion

Unlikely route of exposure considering acetylene is gaseous at room temperature.

Skin

Unlikely route of exposure considering acetylene is gaseous at room temperature. Contact of liquid acetylene may cause temporary irritation.

Eye

Unlikely route of exposure considering acetylene is gaseous at room temperature. Contact of liquid acetylene may cause temporary irritation.

Chronic Effects Long term exposure to acetylene has no known health effects.

12. ECOLOGICAL INFORMATION

Environment Protection

Do not allow this material to enter the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Waste treatment procedures must be performed by trained, experienced personnel with appropriate protective equipment in approved treatment facilities, and in accordance with all federal, state and local government requirements. Reuse or recycling may also be possible and should be investigated. Alternatively, return properly labelled cylinders to the supplier with all valve outlet plugs, caps and protection caps secured, for proper disposal.

14. TRANSPORT INFORMATION

This material is classified as a Class 2.1 Dangerous Good according to the Australian Code for the Transport of Dangerous Goods. Class 2.1 Flammable Gases shall not be loaded or packed in the same vehicle or freight as: - Class 1, Explosives - Class 3, Flammable Liquids (If both the Class 2.1 and Class 3

dangerous goods are in bulk), - Class 4.1, Flammable Solids - Class 4.2, Spontaneously Combustible Substances - Class 4.3, Dangerous When Wet Substances - Class 5.1, Oxidising Agents - Class 5.2, Organic Peroxides - Class 7, Radioactive Substances.

U.N. Number 1001

**Proper
Shipping Name** ACETYLENE, DISSOLVED

DG Class 2.1

Hazchem Code 2[S]E

**Packaging
Method** 3.8.2

Packing Group

EPG Number 2A1

IERG Number 04D

15. REGULATORY INFORMATION

Risk Phrase

R5 Heating may cause an explosion.
R6 Explosive with or without contact with air.
R12 Extremely Flammable.

Safety Phrase S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.

**Poisons
Schedule** Not Scheduled

**Hazard
Category** Extremely Flammable

16. OTHER INFORMATION

**Contact
Person/Point** 24 HOUR EMERGENCY CONTACT: The Operator: 1800 812 588

Regional Offices:
Victoria
40 Bunnett Street, North Sunshine 3020. Tel. (03) 9290 1100 Fax (03) 9290 1199
New South Wales
43-47 Pine Road, Fairfield 2165. Tel. (02) 9892 9777 Fax (02) 9892 1454
4 Kullara Close, Beresfield. 2322. Tel (02) 4949 1700 Fax (02) 4949 1750

Lot 5, Shellharbour Road, Port Kembla 2505. Tel. (02) 4274 4044 Fax (02) 4276 3879
South Australia
164 Philip Highway, Elizabeth 5112. Tel. (08) 8209 3600 Fax (08) 8255 9885
Queensland
759 Progress Road, Wacol 4076. Tel. (07) 3246 6363 Fax (07) 3271 2589
Ingham Road, Cnr. Dundee Street,
Bohle, Townsville, 4818
Tel. (07) 4774 8276 Fax (07) 4774 8313
Featherstone Street, Parkhurst
Rockhampton, 4702. Tel. (07) 4936 1066 Fax (07) 4936 1024
68 Bunda Street, Cairns 4870. Tel. (07) 4031 1566 Fax (07) 4051 4293
Tasmania
11 Windsor Street, Invermay 7248. Tel. (03) 6334 9666 Fax (03) 6334 9600
Air Liquide W.A. Pty Ltd
A.B.N. 52 008 694 166
Wesfarmers Energy Building, Campus Drive (off Murdoch Drive), Murdoch, WA
6150
Tel. (08) 9312 9111 Fax (08) 9313 8108
AIR LIQUIDE AUSTRALIA LIMITED
A.B.N. 57 004 385 782
Head Office:
380 St. Kilda Road, Melbourne, Victoria 3004, Australia. Tel. (03) 9697 9888
Fax (03) 9690 7107
www.airliquide.com.au

**Poisons
Schedule**

Not Scheduled

**Hazard
Category**

Extremely Flammable

**Molecular
Weight**

26.04

End of MSDS

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REPLACES: August 2001

DATE OF ISSUE: December 2002

COMPANY DETAILS

Company: H. B. Fuller Company

Address: 16-22 Red Gum Drive, Dandenong South VIC 3175

Telephone: (03) 9797 6222

Emergency Telephone No: 1800 033 111

Not classified as hazardous according to criteria of Worksafe Australia

IDENTIFICATION

Product Name: Advantra PHC 9256

Other Names: Hot melt adhesive

Manufacturer's Code: Not applicable

UN Number: None assigned

Dangerous Goods Class: None assigned

Subsidiary Risk: None assigned

Hazchem Code: None assigned

Poisons Schedule: Not scheduled

Packaging Group: Not applicable

Use: Hot melt adhesive for carton closing applications. Applied in an industrial environment with purpose built plant or machinery.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance: White solid

Melting Point: 105°C

Boiling Point: Not established

Vapour Pressure: Not applicable

Specific Gravity: < 1.0

Flashpoint: Not applicable

Flammability Limits: Not applicable

Solubility in water: Insoluble in water

OTHER PROPERTIES:

No relevant data

MATERIAL SAFETY DATA SHEET FOR: ADVANTRA PHC 9256

Page 2 of 4

INGREDIENTS:

Chemical Entity	CAS No	Proportion
Proprietary polymer	Not available	High
Paraffinic wax	Not available	High
Synthetic hydrocarbon resin	Not available	Med.
Other ingredients determined not to be hazardous	Not applicable	Low

Low <10%	Med. 10-30%	High 30-60%	V High >60%

HEALTH HAZARD INFORMATIONHEALTH EFFECTS**Acute:**

Swallowed:

Not hazardous in normal industrial use. Ingestion of small amounts of solid material is not expected to produce any adverse health effects. Ingestion of molten material will cause thermal burns. Toxicology tests have not been performed.

Eye:

No health effects due to the solid material. When molten, vapours and fumes may cause irritation. When molten direct contact will cause thermal burns.

Skin:

No known effects due to the solid material. Direct contact will cause thermal burns if the material is in its molten state.

Inhaled:

No known effects due to the solid material. When molten, vapours and fumes may cause irritation of the nose, throat and respiratory tract.

Chronic:

No anticipated chronic effects.

FIRST AID

Swallowed:

If swallowed, do NOT induce vomiting. Give one glass of water or milk. Call a doctor. Never give anything by mouth to an unconscious person.

MATERIAL SAFETY DATA SHEET FOR: ADVANTRA PHC 9256

Page 3 of 4

Eyes:

If contact with solid product occurs, irrigate eye with copious amounts of water to remove adhesive particles. If contact with the molten material occurs, irrigate with copious amounts of water and SEEK IMMEDIATE MEDICAL ATTENTION.

Skin:

None required for normal industrial handling of this product in the solid form. If contact with molten material occurs, immerse contact area in cold, clean water immediately. Do not attempt to remove set product. Cover contact area with wet compresses and take subject to a doctor immediately.

Inhaled:

Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered.

First Aid Facilities:

Burn creme, bandages, eyewash station, emergency showers.

ADVICE TO DOCTOR

Treat symptomatically.

PRECAUTIONS FOR USE

Avoid breathing fumes of molten product. Observe exposure limits.

Exposure Standards [NOHSC:1003(1995)]:	TWA	Hazard	Route
Paraffin wax fumes	2mg/m ³		Inh

C(x): Carcinogen Category x; **Sen:** Sensitiser; **Sk:** Skin absorption; **Inh:** Inhalation

Engineering Controls:

None required if the material is in its solid state. When molten use exhaust ventilation. Ensure that ventilation is sufficient to control exposure levels below airborne exposure limits.

Personal Protection:

Wear overalls and safety glasses when working with the molten material. Application should be performed in conditions of adequate ventilation. Where an inhalation risk exists, wear organic vapour-particulate respirator. Ensure that the cartridges are correct for the potential air contamination and are in good working order (For selection guide see AS 1715). Always wash hands before smoking, eating, drinking or using the toilet.



Flammability:

Combustible solid. Guard against thermal burns. Avoid breathing fumes emanating from the molten material.

SAFE HANDLING INFORMATION

Storage and Transport:

Keep containers securely sealed and protected against physical damage. Not considered Dangerous Goods as defined in the ADG Code.

Hazardous Polymerisation:

Not established

Incompatibilities:

Not established

Spills and Disposal:

Contain -prevent contamination of waterways and drains. If molten, allow to solidify then scrape up and place in disposal container. For disposal, refer to state land waste management authority. Normally suitable for use as land fill by approved agent.

Fire/Explosion Hazard:

Combustible solid. On burning will emit carbon monoxide and other hazardous fumes. Avoid using water on molten material to reduce splattering and spreading of the fire. Fire fighters to wear full protective clothing and self-contained breathing apparatus.

Extinguishing media:

Foam, carbon dioxide, dry chemical powder.

OTHER INFORMATION

No data

CONTACT POINT

Technical Manager (03) 9797 6222

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular, how to safely handle and use the product in the workplace. Since H.B. Fuller Company Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use then product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for the products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.



MATERIAL SAFETY DATA SHEET FOR: AM 1195

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

SUPPLIER Company: H. B. Fuller Company
Address: 16-20 Red Gum Drive Dandenong South VIC 3175
Telephone: (03) 9797 6222
Emergency telephone No: 1800 033 111

PRODUCT **Product Name:** AM 1195
Other Names: Hot melt adhesive
Manufacturer's Code: None

USE Used for hot melt bonding of labels to bottles made from a broad range of materials. Apply with dedicated hot melt application machinery.

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION **NOHSC Classification:** Non-Hazardous Substance
ADG Classification: Non-Dangerous Goods
SUSDP Classification: Not scheduled

RISK PHRASES None

SAFETY PHRASES None

3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE	CHEMICAL ENTITY	CAS No	PROPORTION
	Hydrogenated polycyclopentadiene resins	68132-00-3	30 - 60%
	Mineral oil	8042-47-5	10 - < 30%
	Rosin ester	Not available	10 - < 30%
	Styrene-isoprene block copolymer	25038-32-8	10 - < 30%
	Other ingredients determined not to be hazardous	Not applicable	< 10%

4. FIRST AID MEASURES

FIRST AID **Swallowed:** Do NOT induce vomiting. Rinse mouth thoroughly with water. If casualty is alert and conscious give plenty of water to drink. Seek medical advice promptly.

Eyes: If contact with solid product occurs, irrigate eye with copious amounts of water and try to wash the adhesive from the eye. If contact with the molten material occurs, irrigate with copious amounts of water and SEEK IMMEDIATE MEDICAL ATTENTION.



MATERIAL SAFETY DATA SHEET FOR: AM 1195

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Skin: If contact with the solid form occurs dissolve the adhesive off the skin with medicinal grade white oil then wash affected area with soap and water. If contact with molten material occurs, immerse contact area in cold, clean water immediately. Do not attempt to remove set product. Cover contact area with wet compresses and take casualty to a doctor immediately.

Inhaled: Remove victim to fresh air. Seek medical advice if adverse symptoms, such as coughing, breathing difficulties or burning sensations in the respiratory tract develop.

First Aid Facilities: Burn creme, medicinal white oil, bandages, eyewash station, emergency showers where exposure is likely to occur.

ADVICE TO
DOCTOR

No specific antidote. Provide supportive care. Treatment based on judgement of the doctor in response to reactions of the patient. If substance has entered eyes in a molten state, instil mineral oil to soften the preparation before attempting removal.

5. FIRE FIGHTING MEASURES

EXTINGUISHING
MEDIA

Use alcohol resistant foam, dry chemical powder or carbon dioxide.
Avoid using water on molten material as it may cause splattering and spreading of the fire.

HAZARDOUS
COMBUSTION
PRODUCTS

Oxides of carbon, flammable vapours, polymer fractions having unknown health effects.

PRECAUTIONS FOR
FIRE FIGHTERS

Fight fire from a safe distance. When heated over 230°C components of this mixture undergo exothermal degradation, thereby increasing the intensity of the fire and producing dense smoke and flammable vapours. Wear full protective equipment including a self-contained breathing apparatus. Avoid using water on molten material to reduce splattering and spreading of the fire. Prevent fire-fighting medium from entering drains or waterways.

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY
PROCEDURES

Isolate hazard area, increase ventilation and restrict access. Remove all sources of ignition. If the molten substance is spilled, allow it to cool and collect the resulting slabs.

CLEAN UP
PROCEDURE

Solid Material: Pick up trays and scoop up any adhesive that may have spilled out of the trays and place them in an appropriate container. Clearly label the container to ensure proper disposal as non-hazardous industrial waste.



MATERIAL SAFETY DATA SHEET FOR: AM 1195

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Molten Material: Wear appropriate personal protection equipment (See Section 8) and contain spill. Allow preparation to cool then treat it as described under the "Solid Material" heading.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING

Practice sound industrial hygiene. Avoid contact with material and inhaling of vapours emanating from the molten material. Use only in a well ventilated area. Wash skin thoroughly after handling. Guard against static build-up.

STORAGE

Store in a cool, dry, well ventilated place. Avoid exposure to direct sunlight or sources of heat. Store away from incompatible materials (see Section 10). Protect against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS

An Australian Exposure Standard for this mixture has not been set by NOHSC. The inhalation hazard for this mixture in a solid state is very low. However the mixture does contain trace amounts of styrene and 1, 3-butadiene monomer the exposure standards of which have been set but NOHSC as shown below. The nature and composition of the vapours, gases and mists given off the heated material are unknown and hence an atmospheric exposure limit can not be given for them.

Exposure Standard [NOHSC:1003(2004)]	TWA	STEL
Styrene monomer	50 ppm	100 ppm
1, 3-butadiene monomer	10 ppm	No data
Mineral oil (mist)	5 mg/m ³	No data

BIOLOGICAL LIMIT VALUES

Not applicable

ENGINEERING CONTROLS

The solid material requires only good natural ventilation. The molten material needs good general flameproof mechanical dilution ventilation reinforced with flame proof extraction ventilation at the source of vapour, gas or mist emanation. Ensure that ventilation is sufficient to maintain exposure levels as low as practicable.

**MATERIAL SAFETY DATA SHEET FOR: AM 1195**

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PERSONAL
PROTECTION
EQUIPMENT

Under condition of ordinary use, only nitrile rubber gloves are needed when handling the solid preparation. When using the molten preparation, wear safety glasses with side shields, thick, long sleeved nitrile rubber gloves, long sleeved overalls and work boots. If working in confined spaces, or if vapours, mists or gases are generated and their airborne concentration is unknown wear, in addition to the above, a full-face AS/NZ 1716 compliant cartridge type respirator with an organic vapour filter (For selection guidance see AS 1715). In the presence of mists, a particulate filter should be fitted in conjunction with the organic filter. If a respirator is the sole means of respiratory protection, use a full-face air supplied respirator.

9. PHYSICAL AND CHEMICAL PROPERTIESPHYSICAL
DESCRIPTION &
PROPERTIES

Appearance: Light amber, 500 g translucent blocks in trays or punnets

Odour: Slightly aromatic

pH: Not applicable

Vapour Pressure: Not available

Vapour Density: Not available

Boiling Point: Not established

Softening Point: ca 70°C

Solubility in Water: Insoluble

Specific Gravity: < 1.0

Flashpoint: Not applicable

Explosive Limits (%v/v): Not applicable

Ignition Temperature: Not established

OTHER
PROPERTIES

No relevant data

10. STABILITY AND REACTIVITYCHEMICAL
STABILITY

This material is stable under normal ambient and anticipated storage and handling conditions.

CONDITIONS
TO AVOID

Temperatures in excess of the recommended processing temperatures.

INCOMPATIBLE
MATERIALS

Strong oxidising agents.

HAZARDOUS
DECOMPOSITION
PRODUCTS

Oxides of carbon. Flammable hydrocarbons. Other hazardous gases and vapours of unknown composition.



MATERIAL SAFETY DATA SHEET FOR: AM 1195

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HAZARDOUS
REACTIONS

Hazardous polymerization will not occur. This mixture can undergo exothermic oxidative degradation at elevated temperatures. Bulk material kept at elevated temperatures in air for extended periods of time may self-heat and lead to autoignition.

11. TOXICOLOGICAL INFORMATION

Little information is available for this particular mixture. The toxicological information given below is based by analogy on data of similar preparations.

ACUTE
HEALTH
EFFECTS

Swallowed: Not hazardous in normal industrial use. Ingestion of small amounts of solid material is not expected to cause harm. Ingestion of molten material will cause thermal burns.

Eyes: No health effects due to the solid material. When molten, vapours and mists may cause irritation. Direct contact with the molten mixture will cause thermal burns.

Skin: No known effects due to the solid material. Direct contact with the molten mixture will cause thermal burns.

Inhaled: No known effects due to the solid material. Vapours and mists emanating from the molten mixture may cause irritation of the nose, throat and respiratory tract, headaches, nausea and vomiting.

CHRONIC
HEALTH
EFFECTS

No anticipated chronic effects.

None of the components of this mixture has been listed as a sensitizer, or mutagen.

12. ECOLOGICAL INFORMATION

The ecological effect of the mixture as a whole has not been tested. Available ecological information of the major components suggests the following ecological impact:

ECOTOXICITY

Butadiene styrene polymers are generally regarded as biologically inert.

PERSISTENCE
AND
DEGRADABILITY

Non-biodegradable. Will however ultimately degrade photolytically and aerobically.

MOBILITY

No data

BIOACCUMULATION

Bioaccumulation is not expected.



13. DISPOSAL CONSIDERATIONS

This product is a prescribed waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is counselled to seek advice from the local authority and classify the waste before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

DISPOSAL If possible recycle, otherwise dispose strictly in accordance with local industrial waste or environmental protection regulations. This substance may, if permitted by local authorities, be disposed of in an approved incineration facility or be considered for landfill.

SPECIAL PRECAUTIONS Do not allow this material to contaminate sewerage systems, soil or surface water.

When large amounts of this product need to be disposed of the services of a registered, professional waste disposal organisation is highly recommended.

14. TRANSPORT INFORMATION

This product has not been classified as Dangerous Goods. It is not subject to the ADG regulations.

UN Number: Not applicable	Proper Shipping Name: None listed
ADG Class: Not applicable	ADG Subsidiary Risk: Not applicable
ADG Packaging Group: Not applicable	Hazchem Code: Not applicable
IMDG/IMO Code: Not listed	ICAO/IATA Code: Not listed

15. REGULATORY INFORMATION

AICS All components of this mixture are listed in AICS

SUSDP Not a scheduled poison



16. OTHER INFORMATION

MSDS

Issue Number: 03

Date of Issue: July 2006

Replaces: September 2001 issue

Changes made to the previous issue: Conversion of the 8 header MSDS to the Australian 16 header format as per NOHSC code of practice [NOHSC:2011(2003)].

ACRONYMS

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail

AICS: Australian Inventory of Chemical Substances.

CAS Number: Chemical Abstracts Service Registry Number

CNS: Central nervous system

DG: Dangerous Goods

Hazchem Code: An emergency action code of numbers and letters, which gives information to emergency services.

IARC: International Agency for Research on Cancer.

N.O.S.: Not otherwise specified.

NOHSC: National Health and Safety Commission.

PPE: Personal protection equipment.

R-Phrases: Risk Phrases.

S-Phrases: Safety Phrases.

SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons.

UN Number: United Nations Number

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular, how to safely handle and use the product in the workplace. Since H.B. Fuller Company Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use then product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. Our responsibility for the products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request

Material Safety Data Sheet

Date Of Issue: 14/02/2006

STATEMENT OF HAZARDOUS NATURE: Classified as Hazardous according to criteria of Worksafe Australia.

COMPANY DETAILS

Company: Sensient Technologies Australia Pty Ltd
Address: 30 - 40 Kirkham Road West
Keysborough, Victoria 3173
Australia
Telephone Number: 613 9798 3011
Emergency Telephone Number: 61 417 377 425

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IDENTIFICATION

Product Name: GRAPEFRUIT FLAVOUR
Other Names: None allocated
Product Number: XF2003
UN Number: 1197
Dangerous Goods Class: 3
HazchemCode 3(Y)E
Poisons Schedule No.: None allocated
Use: Concentrated food ingredient. Intended for manufacturing purposes only.

Physical Description/Properties

Appearance: Clear colourless to straw coloured liquid.
Boiling Point /Melting Point (oC): Not Found
Vapour Pressure: Not Found
Specific Gravity: 0.895
Flash Point (oC) 22
Flammability Limits: Not Found
Solubility in Water (g/l): Not determined

Other Properties:

Ingredients

The identity of the individual components of this product is propriety information and is considered a trade secret. For further information contact the manufacturer.

Chemical Name: **CAS Number:** **Proportion:**

HEALTH HAZARD INFORMATION**Health Effects***Acute:*

- Swallowed:** Swallowing can result in nausea, vomiting, shortness of breath, drowsiness, dizziness and loss of consciousness.
- Eye:** Possible eye irritation
- Inhaled:** Possible respiratory tract irritation. Prolonged high concentration exposure may result in fatigue, headache, tremors.
- Skin:** Possible skin irritation

Chronic:

None known

First Aid

- Swallowed:** Rinse mouth with water, and give 500 ml of water to drink. Seek medical advice as soon as possible.
- Eye:** Flush with plenty of water for at least 10 minutes and seek medical advice.
- Skin:** Remove contaminated clothes. Wash with running water for at least 10 minutes or use soap and water followed by running water.
- Inhaled:** Remove casualty to fresh air and make comfortable by sitting/laying him down. Keep respiratory passages free, seek medical advice.
- Advice To Doctor** Treat symptomatically

PRECAUTIONS FOR USE

- ExposureStandards:** None allocated
- Engineering Controls:** Use only in well ventilated area
- Personal Protection:** Avoid prolonged breathing of fumes. Wear goggles if there is risk of splashing. Wear PVC or neoprene gloves.
- Flammability:** Keep away from heat and ignition sources. Use in well ventilated areas. Do not use in confined space.

SAFE HANDLING INFORMATION

- Storage and Transport:** Store in a cool dry area in tightly sealed containers at ambient temperatures. Dangerous goods Class 3 must be stored and transported in accordance with State or Territory dangerous goods regulations. Store away from oxidising materials.
- Spills and Disposal:** Soak up small spills with sand or other inert material and transfer to waste disposal container. Wash area clean with water and detergent. For large spills, consider initial evacuation distance of 300 metres in all directions. Avoid breathing vapours and contact with skin and eyes. Stop leak if safe to do so. If available use water spray to disperse vapours. Prevent spilled material from entering drains by banking with sand or earth. Dispose of by burying on an authorised land fill site under approved controlled conditions, in accordance with local legislation.
- Fire/Explosion Hazard:** For minor fires, use appropriate fire extinguisher (trained personnel). Fight fire from safe location. If fire gets out of control, withdraw all personnel from area and warn against entry. FOR ALL EMERGENCIES: Shut off any electrical equipment. No smoking or naked lights within 50 metres. Move people from immediate area; keep downwind. Notify fire brigade and police. Tell them location, material, quantity, UN number and emergency contact. Indicate condition of container and damage observed. (leaking or fire)

OTHER INFORMATION:

- Disclaimer:** The information contained herein is based on data considered to be accurate and reliable. No warranty is expressed or implied regarding the accuracy or correctness of this data. It is the users obligation to determine the safe use of the product since the conditions of use, handling, storage and disposal are beyond our control.

- CONTACT POINT:** Quality Assurance Manager



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LIME EMULSION

Print Date 11.07.2007

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name : LIME EMULSION

Use of the Substance/Preparation : Flavor for consumer product

Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH

Telephone : +61397889200

Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Not classified as dangerous goods according to the ADG Code.

Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

Additional Info : Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

CAS-No.	Components	Classification	Concentration
		Xn, R65	0 - 10 %

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

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4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

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If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls

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are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

We are not aware of any national exposure limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

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Product LIME EMULSION

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Physical state : liquid
Colour : off-white to cream

Safety data

Flash point : > 100.0 °C
Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG
Not dangerous goods

ADR

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INTERNATIONAL FLAVORS & FRAGRANCES

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UN-Number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(D-LIMONENE, ALPHA-PINENE)
Class : 9
Packaging group : III

IATA

Not dangerous goods

IMDG GLOBAL

Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives

Additional Info : Not a hazardous substance or preparation according to EC-directives
67/548/EEC or 1999/45/EC.

Special labelling of certain preparations : Safety datasheet available on request for professional users.
Lemon, ext.
Lime (Citrus aurantifolia), ext.

Sensitising components : citral
May produce an allergic reaction.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a

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safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

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Material Safety Data Sheet

ARGON Based Compressed Gas Mixtures

Infosafe No. 8AEFO **Issue Date** July 2004 **Status** ISSUED by AIRLIQUI

Not classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name ARGON Based Compressed Gas Mixtures

Product Use Inert shielding gas for arc welding, refining of metals, lasers.

Company Name Air Liquide Australia Limited (ABN 57 004 385 782)

Address Level 9, 380 St. Kilda Road Melbourne
Victoria 3004

Emergency Tel. 1800 812588 (24hr)

Telephone Number/Fax Tel: (03) 9697 9888
Fax: (03) 9690 7107

Other Names	Name	Product Code
	Blueshield	
	Teral	
	Plasmashield	
	Migshield	
	ArcalTM	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Argon	7440-37-1	51-100 %
	Helium	7440-59-7	1-50 %
	Carbon Dioxide	124-38-9	1-30 %
	Oxygen	7782-44-7	1-10 %

Hydrogen

1333-74-0

1-3.5 %

3. HAZARDS IDENTIFICATION

Chronic Effects	Long term exposure has no known health effects. Prolonged exposure to oxygen deficient atmosphere (below 18% oxygen in air) may affect the heart and nervous system.
Inhalation	Necessary to support life, it can act as an asphyxiant. Effects of oxygen deficiency are: 12-16%: breathing and pulse rate increased, muscular coordination slightly disturbed; 10-14%: emotional upset, abnormal fatigue, disturbed respiration; 6-10%: nausea and vomiting, collapse or loss of consciousness; below 6%: convulsive movements, possible respiratory collapse and death.
Ingestion	Not applicable to gases.
Skin	Not irritating to the skin.
Eye	Not irritating to the eye.

4. FIRST AID MEASURES

Inhalation	Call doctor. If victim is conscious: Move to uncontaminated area to breathe fresh air. Keep warm and quiet. If victim is unconscious: Move to uncontaminated area and give assisted respiration. When normal breathing restored, treatment as above. Continued treatment should be symptomatic and supportive. N.B. Rescuers should not enter an oxygen deficient atmosphere without self-contained full face positive pressure breathing equipment.
Ingestion	Not applicable to gases.
Skin	Rinse affected clothing and skin areas etc., with lukewarm, running water. Remove contaminated clothing and wash before reuse. Wash affected skin areas with copious amounts of soap and water. Seek medical attention if effects persist.
Eye	Seek medical attention if any effects of exposure persist, or immediately if extending from physical injury.
First Aid Facilities	Eyewash and normal washroom facilities must be provided, and a safety shower is strongly recommended.
Advice to Doctor	Advise doctor that victim has been exposed to an oxygen deficient atmosphere.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use appropriate media to extinguish source of surrounding fire.
Specific Hazards	Argon based mixture is non-flammable, but container may rupture when heated. Move cylinders from fire if safe to do so. Cool cylinders with water from a protected location. If unable to keep cylinders cool, evacuate area. Only experienced and properly instructed personnel should handle compressed gases. Cylinder contents and identification labels provided by the supplier must not be removed or defaced. Colour coding should not be the only criterion used for content identification.
Flash Point	Non flammable
Flammable Limits UEL	Non flammable
Flammable Limits LEL	Non flammable
Flammability	Non-flammable.

6. ACCIDENTAL RELEASE MEASURES

Other Information	Evacuate the spill area of unnecessary personnel. In enclosed areas rescue personnel should wear AS 1715/1716 approved self contained breathing apparatus. Allow gas to escape to the external atmosphere, or preferably in a fume cupboard or well ventilated, remote area. Do not touch any spilled material. Prevent mixture from entering confined spaces. Leak checking may be done by pressure drop test or by using soapy water on joints and outlets. Shut cylinder valve to stop gas leaks from equipment if possible and safe to do so. If cylinder or cylinder valve is leaking then put on personal protective equipment, shut the cylinder valve, depressurise the equipment, disconnect cylinder from equipment and move the cylinder to a well ventilated area, preferably outdoors, and position to allow gas, rather than liquid to escape. If not possible, allow any liquid to vapourize. Use of a flammable gas monitor will warn of gas build-up in locality. Notify all relevant local, state and federal government occupational and environmental authorities. If possible, repair the leak or allow the cylinder to vent in external atmosphere. Mark empty cylinders 'defective'. Return all faulty cylinders to supplier/manufacture.

7. HANDLING AND STORAGE

Storage	Storage of compressed gas cylinders shall be in compliance with State or Territory regulations. Cylinders shall be stored in a cool, dry, well ventilated area out of direct sunlight and away from heat and ignition sources. Outside or detached storage is preferred. No part of cylinders shall be exposed to temperatures above 55°C. Cylinders shall be stored upright on a level, fireproof floor, secure in position and protected from damage. Full cylinders shall be stored separately from empties. Keep cylinder valve cover on. Label empty cylinders and store full cylinders separately from empty ones. Consider leak detection and alarm systems, as required. Limit quantity in storage. Restrict access to storage area and post warning signs. Inspect periodically for deficiencies such as damage or leaks. Have fire extinguishers available in and near the storage area. Comply with all applicable regulations for the storage and handling of compressed gases. Cylinders should be moved by hand-truck or cart designed for that purpose. Avoid any contact with oil or grease particularly to the cylinder valve.

Packaging Argon based mixture is supplied in high pressure cylinders.
CYLINDER COLOUR: Black with AS 2700 Green Grey N32/White Shoulders AS 2700 T53
Peacock Blue/various bands.
CYLINDER VALVE OUTLET: Industrial - AS 2473 Type 10, AS 2473 Type 20.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote
	Argon					Asphyxiant
	Helium					Asphyxiant
	Hydrogen					Asphyxiant

Other Exposure Information Argon, Helium, Hydrogen are simple asphyxiants.
Carbon dioxide: TWA 5,000 ppm, 9,000 mg/m3
STEL 30,000 ppm, 54,000 mg/m3

Respiratory Protection Respiratory equipment that conforms to AS1715/1716 must be used where exposure to material is likely, in view of the asphyxiant nature of the gas.
In areas where equipment failure may cause an immediate high concentration of argon, approved self-contained full face respiratory equipment should be readily available.

Eye Protection Chemical goggles or safety glasses should be worn to protect against sudden uncontrolled gas release.

Hand Protection Leather, PVC or Teflon gloves should worn.

Footwear Personnel engaged in the movement of gas cylinders shall be provided with safety footwear.

Eng. Controls Provide adequate local exhaust and dilution (general) ventilation and supply sufficient replacement air to maintain oxygen concentration above 18%.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colourless, odourless, tasteless.

Boiling Point Not applicable

Solubility in Water Not applicable

Specific Gravity (H2O=1) Not available

Vapour Pressure Not applicable

Vapour Density (Air=1) (Air=1): 0.76-1.4

Flash Point	Non flammable
Flammability	Non-flammable.
Flammable Limits LEL	Non flammable
Flammable Limits UEL	Non flammable
Molecular Weight	Not applicable
Other Information	Density of Gas (101.3 kPa, 15°C): 0.93-1.72 kg/m3 Critical Temperature: Not applicable

10. STABILITY AND REACTIVITY

11. TOXICOLOGICAL INFORMATION

Inhalation	Necessary to support life, it can act as an asphyxiant. Effects of oxygen deficiency are: 12-16%: breathing and pulse rate increased, muscular coordination slightly disturbed; 10-14%: emotional upset, abnormal fatigue, disturbed respiration; 6-10%: nausea and vomiting, collapse or loss of consciousness; below 6%: convulsive movements, possible respiratory collapse and death.
Ingestion	Not applicable to gases.
Skin	Not irritating to the skin.
Eye	Not irritating to the eye.
Chronic Effects	Long term exposure has no known health effects. Prolonged exposure to oxygen deficient atmosphere (below 18% oxygen in air) may affect the heart and nervous system.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Waste treatment procedures must be performed by trained, experienced personnel with appropriate protective equipment in approved treatment facilities, and in accordance with all federal, state and local government requirements. Reuse or recycling may also be possible and should be investigated. Alternately, return properly labelled cylinders to the supplier with all valve outlet plugs, caps and protection caps secured, for proper disposal.

14. TRANSPORT INFORMATION

Product is classified as a Dangerous Good Class 2.2 COMPRESSED GAS, N.O.S. (CONTAINS ARGON AND HELIUM) in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG). Disconnect regulator before transporting or storing cylinders.

U.N. Number 1956

Proper Shipping Name COMPRESSED GAS, N.O.S. - (CONTAINS ARGON AND HELIUM)

DG Class 2.2

Hazchem Code 2T

Packaging Method 3.8.2

Packing Group

EPG Number 2C1

IERG Number 06

15. REGULATORY INFORMATION

Risk Phrase

Poisons Schedule Not Scheduled

Packaging & Labelling Argon based mixture is supplied in high pressure cylinders.
CYLINDER COLOUR: Black with AS 2700 Green Grey N32/White Shoulders AS 2700 T53 Peacock Blue/various bands.
CYLINDER VALVE OUTLET: Industrial - AS 2473 Type 10, AS 2473 Type 20.

16. OTHER INFORMATION

Contact Person/Point 24 HOUR EMERGENCY CONTACT: The Operator: 1800 812 588

Regional Offices:
Victoria
40 Bunnett Street, North Sunshine 3020. Tel. (03) 9290 1100 Fax (03) 9290 1199
New South Wales
43-47 Pine Road, Fairfield 2165. Tel. (02) 9892 9777 Fax (02) 9892 1454
4 Kullara Close, Beresfield. 2322. Tel (02) 4949 1700 Fax (02) 4949 1750
Lot 5, Shellharbour Road, Port Kembla 2505. Tel. (02) 4274 4044 Fax (02) 4276 3879
South Australia
164 Philip Highway, Elizabeth 5112. Tel. (08) 8209 3600 Fax (08) 8255 9885
Queensland
759 Progress Road, Wacol 4076. Tel. (07) 3246 6363 Fax (07) 3271 2589
Ingham Road, Cnr. Dundee Street,

Bohle, Townsville, 4818
Tel. (07) 4774 8276 Fax (07) 4774 8313
Featherstone Street, Parkhurst
Rockhampton, 4702. Tel. (07) 4936 1066 Fax (07) 4936 1024
68 Bunda Street, Cairns 4870. Tel. (07) 4031 1566 Fax (07) 4051 4293
Tasmania
11 Windsor Street, Invermay 7248. Tel. (03) 6334 9666 Fax (03) 6334 9600
Air Liquide W.A. Pty Ltd
A.B.N. 52 008 694 166
Wesfarmers Energy Building, Campus Drive (off Murdoch Drive), Murdoch, WA 6150
Tel. (08) 9312 9111 Fax (08) 9313 8108
AIR LIQUIDE AUSTRALIA LIMITED
A.B.N. 57 004 385 782
Head Office:
380 St. Kilda Road, Melbourne, Victoria 3004, Australia. Tel. (03) 9697 9888 Fax (03) 9690 7107
www.airliquide.com.au

References

- L'Air Liquide Gas Encyclopedia - Elsevier Scientific Publishing Co. Amsterdam
- Australian Code for the Transport of Dangerous Goods by Road and Rail; 6th Edition
- List of Designated Hazardous Substances [NOHSC:10005(1994)]
- Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995) and NOHSC:1003(1995)]
- Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1994)]
- EPG Cards; or SAA/SNZ HB76 Initial Emergency Response Guide
- Matheson Gas Data Book, 6th Edition, Matheson 1980
- Canadian Liquid Air Montreal, Canada - Gas Products Safety Data Sheets
- Tomes Database, Micromedev

Poisons**Schedule**

Not Scheduled

Molecular**Weight**

Not applicable

End of MSDS

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Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ASPARTAME

Other name(s): Aspartame Powder; Aspartame Granular; Nutrasweet; Nutrasweet Powder; Nutrasweet Powder (R1); Nutrasweet Powder (R5)

Recommended Use: Food additive. Non-nutritive sweetener.

Supplier: Bronson & Jacobs Pty Ltd
ABN: 81 000 063 249
Street Address: 5 Parkview Drive Olympic Park NSW 2127
Telephone Number: +61 2 9394 3288
Facsimile: +61 2 9394 3222

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Based on available information, not classified as hazardous according to criteria of NOHSC; NON-HAZARDOUS SUBSTANCE.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Poisons Schedule: None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components / CAS Number	Proportion	Risk Phrases
L-Phenylalanine, N-L-.alpha.-aspartyl-, 1-methyl ester	100%	-
22839-47-0		

4. FIRST AID MEASURES

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation

Product Name: ASPARTAME
Substance No: 000000032498

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occurs seek medical advice.

Eye Contact: If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Medical attention and special treatment: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazards from combustion products: Combustible solid.

Precautions for fire fighters and special protective equipment: On burning will emit toxic fumes, including those of oxides of carbon and oxides of nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Suitable Extinguishing Media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures: If contamination of sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and clean up: Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash area down with detergent and excess water.

7. HANDLING AND STORAGE

Conditions for safe storage: Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

Precautions for safe handling: Avoid skin and eye contact and breathing in dust.
Avoid handling which leads to dust formation. In common with many organic chemicals,

Product Name: ASPARTAME
Substance No: 000000032498

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may form flammable dust clouds in air. For precautions necessary refer to Safety Data Sheet "Dust Explosion Hazards". Take precautionary measures against static discharges.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates:

Nuisance dust: 8hr TWA = 10 mg/m³

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protective Equipment:

The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If excessive dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Crystals
Colour:	Colourless
Odour:	Not available
Solubility:	Miscible in water.
Specific Gravity:	Not available.

Product Name: **ASPARTAME**
Substance No: **000000032498**

Issued: **30/11/2006** Version: **2**
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Material Safety Data Sheet

Relative Vapour Density (air=1): Not available
Vapour Pressure (20 °C): Not available
Flash Point (°C): Not applicable
Autoignition Temperature (°C): Not available
Melting Point/Range (°C): 246-247
Boiling Point/Range (°C): Not available
Decomposition Point (°C): Not available

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.

Conditions to avoid: Avoid exposure to heat, sources of ignition, and open flame. Avoid dust generation.

Incompatible materials: Incompatible with strong oxidising agents. Incompatible with mineral acids . Incompatible with strong alkalis.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen.

Hazardous reactions: Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.

Eye contact: May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Skin contact: Repeated or prolonged skin contact may lead to irritation.

Inhalation: Breathing in dust may result in respiratory irritation.

Long Term Effects:
No information available for the product.

Toxicological Data:
No LD50 data available for the product.

The acceptable daily intake for aspartame is up to 40 mg/kg body weight. The acceptable daily intake of diketopiperazine (an impurity found in aspartame) is up to 7.5 mg/kg. Aspartic acid (a constituent) and sodium glutamate are both neuro-

Product Name: *ASPARTAME*
Substance No: *000000032498*

Issued: *30/11/2006* **Version:** *2*
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Material Safety Data Sheet

excitatory amino acids which have additional toxic effect on hypothalamic neurones. As this may be especially damaging to young children, aspartame should not be given to children. (1)

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification: Based on available information, not classified as hazardous according to criteria of NOHSC; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule: None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

(1) In 'Martindale - The Extra Pharmacopoeia. 29th Edition. Ed. Reynolds J. The Pharmaceutical Press, London, 1989.'

Product Name: ASPARTAME
Substance No: 000000032498

Issued: 30/11/2006 **Version:** 2
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Material Safety Data Sheet

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

Reason(s) for Issue:

Revised Primary MSDS

Change to Product Name

Addition/Change of synonymous name(s)

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Bronson & Jacobs Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Bronson & Jacobs Pty Ltd at the contact details on page 1.

Bronson & Jacobs Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.

Product Name: *ASPARTAME*
Substance No: *000000032498*

Issued: *30/11/2006* **Version:** *2*
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AUS PASSIONFRUIT COMPOUND

60509

**HAZARDOUS
C3**



BERRY FLAVOUR NATURAL

65687

NON HAZARDOUS



MATERIAL SAFETY DATA SHEET

Boysenberry Juice Concentrate 65°Brix BOYSBJC20

Classified as Non Hazardous & Non Dangerous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Boysenberry Juice Concentrate 65°Brix
Product Code: BOYSBJC20
Manufacture: FFOWCS Williams
Manufacturers Code: EXO000
Recommended Use: Food & Beverage products

Supplier Name: Interaust Foods Pty Ltd
Address: Suite 1
677 Boronia Road
WANTIRNA, VICTORIA, 3152

Telephone Number: +61 3 8805 4800
Fax Number: +61 3 9801 2900

Emergency Telephone: +61 3 8805 4800
000 (for fire, ambulance & police response)

Other Names: None Listed

2. HAZARDS IDENTIFICATION

Hazard Classification: Non Hazardous & Non Dangerous

Chronic Effects: No information available for the product.

Eyes: Contact may be irritating.

Inhalation: Breathing in flavour of concentrate may result in respiratory irritation.

Ingestion: No adverse effects expected. Large undiluted amounts may result in irritation to the mouth, throat and stomach.

Skin: Contact may be irritating.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name: Boysenberry Juice Concentrate
CAS: n/a
Proportion: 100%
Synonyms: None



MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

Eyes:	Flush with water until contamination removed.
Inhalation:	Movement of exposed individual to fresh air is recommended.
Ingestion:	Rinse mouth with water. If swallowed, give a glass of water.
Skin:	Flush with water until contamination removed.
Advice to Doctor:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards:	Non Flammable
Extinguishing Media:	Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment to prevent skin and eye contact. Wash area down with excess water.

7. HANDLING AND STORAGE

Handling:	Avoid skin and eye contact. Care should be taken when manually lifting the product in its packaging.
Storage:	Store in frozen, dry conditions out of direct sunlight. If product has been opened, store at -18°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:	No exposure standard allocated.
Personal Protective Equipment:	Wear overalls, hair net, safety boots, food grade rubber gloves and safety goggles. Always wash hands before and after eating, smoking, drinking or using the toilet. Wash contaminated clothing and other equipment before storage or reuse.
Engineering Controls:	Keep packaging closed when not in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Purple/Red coloured, uniform liquid.
Odour & Flavour:	Typical of Boysenberry.
°Brix:	65 ± 0.5
Specific Gravity:	1.31 – 1.33
pH:	3.30 – 3.90
Titrateable Acidity (as ACA g/kg):	85.0 – 105.0
Solubility:	Very soluble in water. Limited solubility in alcohol.



MATERIAL SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Stable and non-reactive. Easily diluted in water.

11. TOXICOLOGICAL INFORMATION

Chronic Effects: No information available for the product.
Ingestion: Swallowing excessive amounts of the product may cause nausea, diarrhea and vomiting. Frequent oral doses can cause tooth erosion.
Skin: Contact with skin may result in mild irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways as increased nutrients may affect aquatic flora and fauna.
Persistence/Degradability: Readily degraded with water.

13. DISPOSAL CONSIDERATIONS

Refer to waste management authority. Dispose of material through a licensed waste contractor. Normally suitable for disposal at approved land waste sites.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Class: None allocated
Packing Group: None allocated
Hazchem Code: None allocated
Special Precautions: Transport in frozen (<-15°C), dry conditions, free from extraneous contamination.

15. REGULATORY INFORMATION

None allocated

16. OTHER INFORMATION

Date of Preparation: 19/6/07

END OF MSDS



MATERIAL SAFETY DATA SHEET

Boysenberry Juice Concentrate 65°Brix BOYSBJC274

Classified as Non Hazardous & Non Dangerous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Boysenberry Juice Concentrate 65°Brix
Product Code: BOYSBJC274
Manufacture: FFOWCS Williams
Manufacturers Code: EXO000
Recommended Use: Food & Beverage products

Supplier Name: Interaust Foods Pty Ltd
Address: Suite 1
677 Boronia Road
WANTIRNA, VICTORIA, 3152

Telephone Number: +61 3 8805 4800
Fax Number: +61 3 9801 2900

Emergency Telephone: +61 3 8805 4800
000 (for fire, ambulance & police response)

Other Names: None Listed

2. HAZARDS IDENTIFICATION

Hazard Classification: Non Hazardous & Non Dangerous

Chronic Effects: No information available for the product.

Eyes: Contact may be irritating.

Inhalation: Breathing in flavour of concentrate may result in respiratory irritation.

Ingestion: No adverse effects expected. Large undiluted amounts may result in irritation to the mouth, throat and stomach.

Skin: Contact may be irritating.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name: Boysenberry Juice Concentrate
CAS: n/a
Proportion: 100%
Synonyms: None



MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

Eyes:	Flush with water until contamination removed.
Inhalation:	Movement of exposed individual to fresh air is recommended.
Ingestion:	Rinse mouth with water. If swallowed, give a glass of water.
Skin:	Flush with water until contamination removed.
Advice to Doctor:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards:	Non Flammable
Extinguishing Media:	Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment to prevent skin and eye contact. Wash area down with excess water.

7. HANDLING AND STORAGE

Handling:	Avoid skin and eye contact. Care should be taken when manually lifting the product in its packaging.
Storage:	Store in frozen, dry conditions out of direct sunlight. If product has been opened, store at -18°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:	No exposure standard allocated.
Personal Protective Equipment:	Wear overalls, hair net, safety boots, food grade rubber gloves and safety goggles. Always wash hands before and after eating, smoking, drinking or using the toilet. Wash contaminated clothing and other equipment before storage or reuse.
Engineering Controls:	Keep packaging closed when not in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Purple/Red coloured, uniform liquid.
Odour & Flavour:	Typical of Boysenberry.
°Brix:	65 ± 0.5
Specific Gravity:	1.31 – 1.33
pH:	3.30 – 3.90
Titrateable Acidity (as ACA g/kg):	85.0 – 105.0
Solubility:	Very soluble in water. Limited solubility in alcohol.



MATERIAL SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Stable and non-reactive. Easily diluted in water.

11. TOXICOLOGICAL INFORMATION

Chronic Effects: No information available for the product.
Ingestion: Swallowing excessive amounts of the product may cause nausea, diarrhea and vomiting. Frequent oral doses can cause tooth erosion.
Skin: Contact with skin may result in mild irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways as increased nutrients may affect aquatic flora and fauna.
Persistence/Degradability: Readily degraded with water.

13. DISPOSAL CONSIDERATIONS

Refer to waste management authority. Dispose of material through a licensed waste contractor. Normally suitable for disposal at approved land waste sites.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Class: None allocated
Packing Group: None allocated
Hazchem Code: None allocated
Special Precautions: Transport in frozen (<-15°C), dry conditions, free from extraneous contamination.

15. REGULATORY INFORMATION

None allocated

16. OTHER INFORMATION

Date of Preparation: 19/6/07

END OF MSDS

Safety Data Sheet

DATE : 01 : 07 : 2004

ISSUE No. : 03

NOTE: Access to a copy of this Safety Data Sheet (SDS) via our Website does not constitute the issue of a controlled Copy under EU legislation. To be issued with such a copy please contact Rentokil Initial at the address below by telephone, fax or in writing. In order to confirm the latest version of the SDS for this product see web: www.ri-research.com and click on Technical Information / Product Safety.

REVISION (see box 16)

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
PRODUCT NAME	BROMATROL RAT BLOCKS (with Bitrex™)
DESCRIPTION	A blue, rodenticidal, ready-to-use grain-based bait block with no perceptible odour. For professional use in the control of rats. Contains a bittering additive.
COMPANY	Rentokil Initial UK Ltd, Pest Control, Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229

2 HAZARD IDENTIFICATION
CLASSIFICATION AND DANGER SYMBOL (SUPPLY – USE) : IN COMPLIANCE WITH EC DIRECTIVE 1999/45.
Not classified
ADVERSE PHYSICAL, CHEMICAL, SIGNIFICANT HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (SEE ALSO BOX 11):
Combustion or thermal decomposition may evolve toxic or irritant vapours.
This product contains an anticoagulant compound. If sufficient quantities are ingested, nose-bleed and bleeding gums may occur. In severe cases there may be bruising, haematomas of the joints and blood present in the urine and faeces.
Adverse effects on the environment are unlikely, provided that the product is used as intended.

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)		
% w/w	COMMON*/CHEMICAL NAME, ELINCS/EINECS AND CAS OF INGREDIENTS	EC 1999/45 CLASSIFICATION
0.005	Bromadiolone* / 3-[3-(4'-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin. EINECS : 249-205-9 CAS : 28772-56-7	T+ : R27/28 N : R51/53
≤1.0	Bitrex™* / denatonium benzoate EINECS : 223-095-2 CAS : 3734-33-6	X _n : R20/22 X _i : R38 X _i : R41 : R52,53
> 2.5 ≤ 10.0	Propylene glycol* / propane-1,2-diol EINECS : 200-338-0 CAS : 57-55-6	Not classified.

4 FIRST-AID MEASURES (SEE ALSO “ADVERSE EFFECTS” IN BOX 2)	
INHALATION	Unlikely route of exposure. However, remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
EYE CONTACT	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
SKIN CONTACT	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
INGESTION (SWALLOWING)	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to ½ litre or 1 pint of water to drink. Seek medical attention.
EMERGENCY EQUIPMENT SUGGESTED	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice “First-aid at Work”.
NOTE TO DOCTOR	Further information on all Rentokil Initial formulations is lodged with the National Poisons Information Service in the UK. Telephone +44 (0) 870 600 6266 - 24 hours.

5 FIRE FIGHTING MEASURES	
FIRE EXTINGUISHER TYPE	Use foam, water, carbon dioxide or dry powder extinguishers.
SPECIAL FIRE-FIGHTING PROCEDURES	Wear self-contained breathing apparatus and suitable protective clothing.
SPECIAL EXPOSURE HAZARDS	Combustion or thermal decomposition may evolve toxic or irritant vapours.

6 ACCIDENTAL RELEASE MEASURES	
PERSONAL PRECAUTIONS (See also box 8)	Wear suitable personal protective equipment.
ENVIRONMENTAL PRECAUTIONS	DO NOT contaminate watercourses or ground.
CLEAN-UP PROCEDURE (See also box 13)	Brush up spillage and transfer to a suitable container for subsequent disposal.

7 HANDLING AND STORAGE	
HANDLING	Avoid all contact by mouth. Wash hands and exposed skin before meals and after use.
STORAGE	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food, drink and animal feeding stuffs.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION (SEE ALSO BOX 7)	
EXPOSURE STANDARD - DIRECTIVE EC/98/24 (1ST IOELV DIRECTIVE)	OES for propylene glycol for total (vapour and particulates) is 474 mg/m ³ long term exposure (8 hour Time Weighted Average) and for particulates is 10 mg/m ³ long-term exposure (8 hour TWA). Propylene glycol is referred to as propane-1,2-diol in Directive EC/98/24 (1 ST IOELV Directive).
ENGINEERING CONTROLS	Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the following item(s):
EYE PROTECTION	None necessary under normal working conditions.
HAND PROTECTION	None necessary under normal working conditions.
SKIN PROTECTION	None necessary under normal working conditions.
BREATHING PROTECTION	None necessary under normal working conditions.
ENVIRONMENTAL EXPOSURE CONTROLS	Product should be used in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES			
APPEARANCE AND ODOUR	A blue, grain-based bait block with no perceptible odour.		
pH	Not applicable.	SOLUBILITY IN WATER	Insoluble.
BULK DENSITY	1.2-1.3 g/cm ³ at 20°C	SOLUBILITY IN FAT	Insoluble.
FLASH POINT	Not applicable.	EXPLOSIVE PROPERTIES	None known.
FLAMMABILITY	Non-flammable.	COMBUSTIBILITY	Combustible.
AUTOFLAMMABILITY	Not applicable.	OXIDISING PROPERTIES	Not determined.
BOILING POINT/RANGE	Not applicable.	MELTING POINT	Decomposes before melting at around 240°C
VAPOUR DENSITY	Not applicable.	EVAPORATION RATE	Not applicable.
VAPOUR PRESSURE	Not applicable.	PARTITION COEFFICIENT	Not applicable.
VISCOSITY	Not applicable.	OTHER DATA	None known.

BROMATROL RAT BLOCKS – (with Bitrex™)

10 STABILITY AND REACTIVITY

CONDITIONS TO AVOID	Avoid extremes of temperature, e.g. below 0°C and above 40°C.
MATERIALS TO AVOID	None.
HAZARDOUS BREAKDOWN PRODUCTS	Combustion or thermal decomposition may evolve toxic or irritant vapours.

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

ACUTE TOXICITY	ORAL	LD ₅₀ (rat) : 6233 to 8014 mg/kg.
	INHALATION	Unlikely route of exposure.
	DERMAL	Not determined.
CORROSIVITY/IRRITATION	SKIN	Product is not expected to be irritating to skin.
	EYES	Product is not expected to be irritating to eyes.
	RESPIRATORY TRACT	Product is not expected to be irritating to the respiratory tract.
SENSITISATION	SKIN	Contains no known skin sensitisers.
	RESPIRATORY	Contains no known respiratory sensitisers.
REPEAT-DOSE TOXICITY		Product does not contain any components known to have any effects relating to repeated-dose toxicity.
MUTAGENICITY		Product does not contain any components known to have a mutagenic effect.
CARCINOGENICITY		Product does not contain any components known to have a carcinogenic effect.
REPRODUCTIVE TOXICITY	FERTILITY	Product does not contain any components known to have effects on fertility.
	DEVELOPMENT	Product does not contain any components known to be toxic to the reproductive system.
OTHER INFORMATION		Bromadiolone is an indirect anticoagulant. Phytomenadione (Vitamin K1) is antidotal. Determine prothrombin times not less than eighteen hours after consumption. If elevated, administer Vitamin K1 until prothrombin time for two weeks after withdrawal of antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

GENERAL INFORMATION	The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment.
ECOTOXICITY DATA	For bromadiolone: LC ₅₀ Bluegill sunfish (96h): 3.0 mg/L. LC ₅₀ <i>Daphnia</i> (48h): 2.0 mg/L. For Bitrex™: LC ₅₀ Rainbow trout (96h): >1000 mg/L. EC ₅₀ <i>Daphnia magna</i> (48h): 13 mg/L. For Bitrex™: water solubility: 45 g/L.
MOBILITY (of appropriate constituents)	
PERSISTENCE AND DEGRADABILITY (of appropriate constituents)	For Bromadiolone: Very rapid degradation by agents that make water drinkable (chlorine, ozone, chlorine dioxide). Rapid degradation on soil under aerobic conditions: half-life of a few days. High sensitivity to photolysis in aqueous medium: half-life 2.1h at pH 7.3, lower sensitivity to hydrolysis: 67 days at pH 7. For Bitrex™: Abiotic degradation: 10% after 5 days at 50°C at all pHs. Abiotic degradation: 10% after 30 days at 25°C at all pHs.
BIOACCUMULATIVE POTENTIAL (of appropriate constituents)	For Bromadiolone: Fixation on clayey soil.
ENVIRONMENTAL CONSIDERATIONS	For Bitrex™: has a low bioaccumulation potential. DO NOT contaminate watercourses or ground. The Bromadiolone in this product is classified as toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The Bitrex™ in this product is classified as harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Thus, every care must be taken to avoid its release and the subsequent contamination of the aquatic environment.
OTHER ADVERSE EFFECTS	None.

13 DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE	Under normal circumstances, waste will be disposed of by Rentokil Initial.
DISPOSAL OF CONTAINERS:	Under normal circumstances, empty containers will be disposed of by Rentokil Initial.
CLASSIFICATION OF INGREDIENTS. (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	<u>Hazard Code</u> : Not classified.
NOTE FOR DISPOSAL	<u>Components making the waste hazardous</u> <u>Concentrations (%)</u> : Not required. Disposal should be in accordance with local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0845 9333111.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)				
UN No.	Not Classified.	TREMCARD REFERENCE No.	Not required.	RIS CODE
TRANSPORT CATEGORY	Not required.	UK HAZCHEM EAC	Not required.	PSD65
ADR 2003 (INTERNATIONAL ROAD)	CLASS Not required.	ADR HIN	Not required.	LABELS
PROPER SHIPPING NAME	Not required.			Not required.
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.	PACKING GROUP	Not required.	
IMDG 2002 (SEA)	CLASS Not required.	IMDG EMS	Not required.	
PROPER SHIPPING NAME	Not required.			
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.	PACKING GROUP	Not required.	
NOTE FOR TRANSPORT	Local, State or National requirements may apply to the carriage of this product.			

15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))	
HAZARD SYMBOLS INDICATION OF DANGER	Not required.
RISK PHRASES	Risk phrases are not required.
SAFETY PHRASES	Safety phrases are not required.
LEGISLATION	Labelling is according to UK regulations implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with local legislation. Specific legislation used within this Safety Data Sheet is listed in the above boxes.

16 OTHER INFORMATION and indication of revisions	
The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK.	
Before using any product, ensure that you read and understand its label.	
Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times.	
Bitrex™ is a registered trademark of Macfarlan Smith Ltd.	
REVISIONS	Changes have been made to the content of boxes 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 02.
RISK PHRASE TEXT (from box 2)	R27/28 : Very toxic in contact with skin and if swallowed. R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R20/22 : Harmful by inhalation and if swallowed. R38 : Irritating to skin. R41 : Risk of serious damage to eyes. R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

BROMATROL RAT BLOCKS – (with Bitrex™)

SDS No. 727

Issue : 03

01 : 07 : 2004

Page 4 of 4

Before using any product, ensure that you read and understand its label.

The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.

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Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 326229 Web: www.ri-research.com

BOC Limited
ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **CARBON DIOXIDE BULK**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name BOC LIMITED (AUSTRALIA)
Address 10 Julius Avenue, North Ryde NSW, 2113, AUSTRALIA
Telephone +61 131 262, (02) 8874 4400
Fax +61 132 427 (24 hours)
Emergency 1800 653 572 (A/H) (Australia only)
Synonyms PRODUCT CODES: 0087, 0729, 0737, 0740, 0741, 0742, 0743, 0744, 0746, 0747, 0748, 0749, 0750, 0753, 0755, 0758.
Uses FREEZING APPLICATIONS, REFRIGERANT, SHIELDING GAS, BEVERAGE PRODUCT DISPENSING.

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
CARBON DIOXIDE	CO ₂	>99.5%	124-38-9

4. FIRST AID MEASURES

Eye Treatment for cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention.

Inhalation Remove from area of exposure immediately. If assisting a victim avoid becoming a casualty, wear an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. If victim is not breathing apply artificial respiration and seek urgent medical attention. Give oxygen if available. Keep warm and rested.

Skin Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30 C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.

Ingestion Ingestion is considered unlikely. However, if ingestion occurs, drink large volumes of water. Seek medical attention

Advice To Doctor Treat for asphyxia and cold burns.

5. FIRE FIGHTING MEASURES

Flammability Non flammable. No fire or explosion hazard exists.

Fire and Explosion Non flammable liquid and vapour. Temperatures in a fire may cause liquid vessels and related equipment to rupture. Storage vessels may contain fine particle insulation materials or foam products which may be hazardous or release

**Colour
Rating
AMBER**

BOC Limited
ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **CARBON DIOXIDE BULK**

5. FIRE FIGHTING MEASURES cont.

hazardous decomposition products in a fire. Call fire brigade. Cool vessels exposed to fire by applying water from a protected location. Do not approach vessels suspected of being hot. Evacuate the area if unable to keep vessels cool.

Extinguishing Non flammable. Use water fog to cool containers from protected area.

Hazchem Code 2RE

6. ACCIDENTAL RELEASE MEASURES

Spillage Release of liquid to atmosphere will generate vapour fog clouds which can travel considerable distances and affect visibility. These clouds should be treated as asphyxiating atmospheres as the evaporated liquid will have displaced air. Refer to vessel operating instructions. In an emergency allow liquid and gas to escape to atmosphere. Monitor oxygen concentration in confined spaces. Contact manufacturer for guidance. Leak checking may be done by pressure drop test or soapy water at joints and outlets. Shut liquid and gas supply valves to stop leak if possible and safe to do so.

7. HANDLING AND STORAGE

Handling Use safe work practices to avoid eye or skin contact and inhalation. Observe good personal hygiene. Prohibit eating, drinking and smoking in contaminated areas. Wash hands before eating.

Storage Refer to vessel operating instructions. Do not store near sources of ignition, oxidising agents, poisons, combustible material and flammable liquids. Portable liquid containers should be stored: upright, prevented from falling, in a secure area; below 45 C, in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Use with adequate natural ventilation. Open windows and doors where possible. In poorly ventilated areas, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

Exposure Standards CARBON DIOXIDE (124-38-9)
ES-TWA : 5000 ppm (9000 mg/m³)
ES-STEL : 30000 ppm (54000 mg/m³)

PPE Wear safety glasses, safety boots and leather or cotton gloves. Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator. Only experienced and properly trained people should use this product.



**Colour
Rating
AMBER**

BOC Limited
ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **CARBON DIOXIDE BULK**

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: COLOURLESS LIQUID/GAS
Odour: ODOURLESS
pH: NOT AVAILABLE
Vapour Pressure: 6300 kPa @ 25 C
Vapour Density: NOT AVAILABLE
Boiling Point: NOT AVAILABLE
Melting Point: NOT AVAILABLE
Evaporation Rate: NOT AVAILABLE
Solubility (water): 0.759 cm³/cm³
Specific Gravity: NOT AVAILABLE
% Volatiles: NOT AVAILABLE
Flammability: NON FLAMMABLE
Flash Point: NOT RELEVANT
Upper Explosion Limit: NOT RELEVANT
Lower Explosion Limit: NOT RELEVANT
Autoignition Temperature: NOT AVAILABLE
Density: 1.53 (Air =1)
Critical Temperature: 31 C (Approximately)
Critical Pressure: 7380 kPa (Approximately)

10. STABILITY AND REACTIVITY

Reactivity Moist carbon dioxide is corrosive, hence acid resistant materials are required (stainless steel). Certain properties of some plastics and rubbers may be affected by gas or liquid, ie. embrittlement, leaching of plasticisers, etc. Dust of aluminium, chrome and manganese ignite and explode when heated in carbon dioxide. Incompatible with acrylaldehyde, aziridine, metal acetylides, sodium peroxide. Corrosive when moist.

Decomposition Products May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Asphyxiant. Severe frost-bite burns may result from exposure to cold vapour or liquid. Carbon dioxide concentrations of 3-5 % in air cause increased respiration and headache. Concentrations of 8-15% cause headache, nausea and vomiting which may lead to unconsciousness if not moved to open air and given oxygen. Inhalation of a mixture containing no oxygen may result in unconsciousness from the first breath and death will follow in a few minutes. Adverse health affects to long term exposure to carbon dioxide have not been reported. However in environments such as submarines where exposure to levels of 0.5 - 1.0% may occur, specialist medical opinion should be sought on the effects of long term exposure. Escaping liquid can form a dry ice powder like snow.

Eye Non irritating. However, direct contact with evaporating liquid may result in severe cold burns with possible permanent damage. Eye contact with dry ice powder could result in frostbite or cold burns.

Inhalation Non irritant - Asphyxiant.

Skin Non irritating. Contact with evaporating liquid (eg. cold vessels or pipes containing low pressure liquid) may result in frost-bite with severe tissue damage. Skin contact with dry ice powder could result in frostbite or cold burns.

Ingestion Due to product form, ingestion is considered highly unlikely. Solid carbon dioxide will cause cold burns to mouth and throat.

**Colour
Rating
AMBER**

BOC Limited
ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **CARBON DIOXIDE BULK**

11. TOXICOLOGICAL INFORMATION cont.**12. ECOLOGICAL INFORMATION**

Environment Carbon dioxide is a natural component of the earth's atmosphere (0.027 - 0.035 % v/v). However, increases in the atmospheric carbon dioxide levels have been linked with global warming, and hence emission of carbon dioxide into the atmosphere should be minimised as far as possible.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Ensure all liquid and gas supply valves are shut. Notify the manufacturer that you will be returning the portable liquid container. Residual product will be disposed of under the manufacturer's supervision.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Transport Transport on open top vehicles in accordance with Australian Code for the Transport of Dangerous Goods.

UN Number 2187

Shipping Name CARBON DIOXIDE, REFRIGERATED LIQUID

DG Class 2.2

Subsidiary None Allocated

Risk(s)

Packing Group None Allocated

Hazchem Code 2RE

15. REGULATORY INFORMATION

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

Poison Schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

16. OTHER INFORMATION

Additional Information METHOD OF APPLICATION: Low temperature liquid requires specialised transfer equipment and methods, pressure regulated gas applications use heat transfer to evaporated liquid.

COLOUR RATING SYSTEM: Chem Alert reports are assigned a colour rating of Green, Amber or Red for the purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

**Colour
Rating
AMBER**

BOC Limited

ABN 95 000 029 729

10 Julius Avenue

NORTH RYDE NSW 2113

Tel + 61 131 262

Fax + 61 132 427

Product Name **CARBON DIOXIDE BULK****16. OTHER INFORMATION cont.**

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made. Information provided by Risk Management Technologies is summarised for ease of use. Additional technical information is available by calling +61 8 9322 1711.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:mg/m³ - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

Report 14th June 2005
Reviewed**Date Printed** 14th June 2005

Report Status Chem Alert reports are compiled as an independent source of information by RMT's scientific department. The information is based on the latest chemical and toxicological research, and in compliance with relevant standards, guidance notes and legislation (where applicable). The Chem Alert report is not intended as a replacement to the manufacturer's original MSDS that is provided to Chem Alert subscribers for convenience. In many instances, Chem Alert reports are compiled on behalf of manufacturers, in which case they serve as the "Manufacturer's MSDS" and are clearly identified as such on the relevant reports.

Prepared By Risk Management Technologies
5 Ventnor Avenue, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Web: www.rmt.com.au

**Colour
Rating
AMBER**

SAFETY DATA SHEET

CO-820-WS-AP

Version: 1-AUS/EN

Revision Date: 12-12-2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: CO-820-WS-AP

Material No.: 248331

Application: For food application.

Supplier: Chr. Hansen Pty Ltd
P.O. Box 591
3153 Bayswater, Victoria
Phone: +61 3 9762 9600

Emergency telephone: +61 3 9762 9600 (Monday through Friday, 8:00 AM to 5:00 PM)

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of NOHSC.

RISK PHRASES: None.

SAFETY PHRASES: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: food color.

The following substances shall be indicated according to legislation:

<u>Chemical name</u>	<u>CAS-No</u>	<u>%</u>	<u>Hazard classification:</u>	<u>Notes:</u>
citric acid	77-92-9	5 - 10	Xi;R36	-

SAFETY DATA SHEET

CO-820-WS-AP

Version: 1-AUS/EN

Revision Date: 12-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

4. FIRST-AID MEASURES

Inhalation:	Move into fresh air and keep at rest. If uncomfortable: Seek hospital and take along these instructions.
Skin contact:	Remove contaminated clothing immediately and wash skin with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
Eye contact:	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion:	Rinse mouth thoroughly. If uncomfortable: Get medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Specific hazards:	No specific precautions.
Protective equipment for fire-fighters:	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet. For personal protection, see section 8.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Spill Cleanup Methods:	Flush away small spillages with plenty of water. Large quantities: Absorb spillage with suitable absorbent material. Flush contaminated area with plenty of water. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Safe handling advice:	Avoid contact with skin and eyes. Observe good industrial hygiene practices.
Technical measures:	Keep the workplace clean.
Technical precautions:	No special precautions.
Technical measures for safe storage:	No special precautions.
Storage conditions:	Store in closed original container at temperatures between: 2 - 25°C / 36 - 77 °F. Protect against direct sunlight. Store in a dry place.

SAFETY DATA SHEET

CO-820-WS-AP

Version: 1-AUS/EN

Revision Date: 12-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. A small green diamond is positioned below the 'H'.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Provide adequate ventilation. Minimise the risk of inhalation of vapours and mist.
Respiratory equipment:	In case of inadequate ventilation: Use respiratory equipment with combination filter, type A2/P2. The use of filtering respirators should be limited to max. 3 hours per day.
Hand protection:	Risk of contact: Wear protective gloves. Nitrile gloves are recommended.
Eye protection:	Risk of contact: Wear goggles/face shield.
Skin protection:	No special precautions.
Hygiene measures:	Wash hands after contact.
Environmental Exposure Controls:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Dark reddish orange
Odour:	Odourless
pH:	2.00
Melting point (°C):	Not relevant
Boiling point (°C):	Not relevant
Decomposition temperature (°C):	Not relevant
Flash point (°C):	Not relevant
Explosive properties:	Not relevant
Relative density:	1.08
Solubility:	Water soluble and acid proof

10. STABILITY AND REACTIVITY

Stability:	Stable under normal temperature conditions and recommended use.
Conditions/materials to avoid:	Avoid exposure to high temperatures or direct sunlight.
Hazardous decomposition products:	None known.

SAFETY DATA SHEET

CO-820-WS-AP

Version: 1-AUS/EN

Revision Date: 12-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

11. TOXICOLOGICAL INFORMATION

Inhalation: Not relevant at normal room temperatures.

Skin contact: Slightly irritating.

Eye contact: May irritate.

Ingestion: May irritate and cause malaise.

Specific effects: None known.

12. ECOLOGICAL INFORMATION

Mobility: The product is water soluble and may spread in water systems.

Degradability: The product is expected to be biodegradable.

Ecotoxicity: The harmful effects of the product in the environment are considered to be limited.

Bioaccumulative potential: Bioaccumulation: Is not expected to be bioaccumulable.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADG).

15. REGULATORY INFORMATION

Poison Schedule Number: No Poisons Schedule number allocated.

Hazard Category: Not classified.

Specific Provisions: Local State and Territory regulation may apply.

SAFETY DATA SHEET

CO-820-WS-AP

Version: 1-AUS/EN

Revision Date: 12-12-2006

The logo for CHR HANSEN, featuring the company name in white capital letters on a dark blue rectangular background. Below the text is a small green diamond shape.

16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision Date: 12-12-2006

Wording of Risk Phrases

R36 - Irritating to eyes

-

References:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, NOHSC:2011(2003).
Approved Criteria for Classifying Hazardous Substances, NOHSC:1008(2004).
List of Designated Hazardous Substances, NOHSC:10005(1999).

The information in this Safety Data Sheet has been obtained from current and reliable sources. However, the data is provided without warranty, express or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss injury, damage, or expense resulting from improper use of this product.

INTERNATIONAL FLAVORS & FRAGRANCES

Page 1 (1)

10.09.2008

P & N BEVERAGES AUSTRALIA P/L
316 BRISBANE TERRACE
GOODNA QLD 4300

IMPORTANT: PLEASE ENSURE THAT THE ENCLOSED DOCUMENTS ARE PRESENTED TO THE PLANT MANAGER OR OTHER PERSON LEGALLY RESPONSIBLE FOR REVIEWING THEM.

Dear customer,

Please find enclosed the latest version(s) of the (Material) Safety Data Sheet(s) for IFF product(s) purchased, sampled, or inquired about.

These (M)SDS(s) are to the best of our knowledge in accordance with legal requirements in force at the date of issue. Please discard any earlier versions of such documents previously received from IFF for these products.

Please note that these documents are distributed, via an automated system, to the recipient's "ship to" address unless the customer specifies alternate delivery instructions. This is to ensure that safety data sheets for each IFF product are reviewed by local personnel who will be directly handling the product. IFF's customers will receive an (M)SDS concurrent with each sample shipment, with each initial production order per delivery location, with each order following a change to the MSDS, and with each order for which an (M)SDS has not been sent within the preceding 365 days. In addition, the (M)SDS is available upon customer request.

Please also note that the data given on IFF's (M)SDS is not for Quality Control purposes and may differ from data provided on a Certificate of Analysis or other Quality related documentation. Thank you for choosing International Flavors and Fragrances.

Description	Document version	Created
LEMON	1	31.07.2007



CRANBERRY APPLE FLAVOUR XF1277

65683

**HAZARDOUS
C3**



Material Safety Data Sheet

QUININE TONIC FLAVOUR

1 . Identification of the material and supplier

Product name	: QUININE TONIC FLAVOUR
Product code	: DC00317
ADG	: FLAMMABLE LIQUID, N.O.S. (ethanol)
Supplier	: Quest International Australia Limited, 12 Britton Street, Smithfield NSW 2164
Emergency telephone number	: (02) 9827-4000
Area of application	: Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use. - Industrial applications.

2 . Hazards identification

Classification	: R10
Risk phrases	: R10 - Flammable.
Statement of hazardous/dangerous nature	: NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3 . Composition/information on ingredients

Mixture	: Yes.
CAS number	: Mixture.

Ingredient name	CAS number	Concentration
ethanol	64-17-5	25 - 50
quinine, monohydrochloride	6119-47-7	5 - 10
lemon, ext.	84929-31-7	0 - 0.1
lime (citrus aurantifolia), ext.	90063-52-8	0 - 0.1

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

4 . First-aid measures

First-aid measures

Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or

4 . First-aid measures

waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

5 . Fire-fighting measures

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards :

Flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code : 3[Y]E

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilt material.

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

7 . Handling and storage

Handling : Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Storage : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8 . Exposure controls/personal protection

Occupational exposure limits

Ingredient name

ethanol

Exposure limits

NOHSC (Australia, 8/2005).

TWA: 1880 mg/m³ 8 hour/hours.

TWA: 1000 ppm 8 hour/hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

8 . Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid.
Colour	: Colourless. (Light.)
Odour	: Characteristic.
Boiling point	: The lowest known value is 78.35°C (173°F) (ethanol). Weighted average: 88.35°C (191°F)
Melting point	: May start to solidify at 0°C (32°F) based on data for: water. Weighted average: -61.31°C (-78.4°F)
Relative density	: 0.937 (Water = 1)
Density	: The only known value is 1 g/cm ³ (water).
Flash point	: Closed cup: 22°C (71.6°F).
Vapour density	: The highest known value is 1.6 (Air = 1) (ethanol).
Auto-ignition temperature	: The lowest known value is 398.85°C (749.9°F) (ethanol).
Evaporation rate (butyl acetate = 1)	: 0.36 (water) compared with (n-BUTYL ACETATE=1)

10 . Stability and reactivity

Stability	: The product is stable.
Hazardous decomposition products	: These products are halogenated compounds, hydrogen chloride.

11 . Toxicological information

Potential acute health effects

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.

Potential chronic health effects

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	: No known significant effects or critical hazards.

11 . Toxicological information

- Ingestion** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.
- Target organs** : Contains material which causes damage to the following organs: blood, the reproductive system, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12 . Ecological information

- Other adverse effects** : No known significant effects or critical hazards.

13 . Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG	1993	FLAMMABLE LIQUID, N.O.S. (ethanol)	3	II		Hazchem code: 3[Y]E Initial emergency response guide: 3A1
ADR	1993	FLAMMABLE LIQUID, N.O.S. (ethanol)	3	II		-
IMDG	1993	FLAMMABLE LIQUID, N.O.S. (ethanol)	3	II		-
IATA	1993	FLAMMABLE LIQUID, N.O.S. (ethanol)	3	II		-

PG* : Packing group

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Ingredient name

No listed substance

Schedule

Control of Scheduled Carcinogenic Substances

Ingredient name

No listed substance

Schedule

EU Classification : R10

HCS Classification : Flammable liquid
Target organ effects

16 . Other information

Enquiries regarding MSDS content should be directed to:

Technical Department

Telephone no.: (02) 9827-4000

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

16 . Other information





Material Safety Data Sheet

GINGER BEER NI FLAVOUR A

1. Identification of the material and supplier

Product name : GINGER BEER NI FLAVOUR A
Product code : DC01478
ADG : EXTRACTS, FLAVOURING, LIQUID mixture
Supplier : Quest International Australia Limited, 12 Britton Street, Smithfield NSW 2164
Emergency telephone number : (02) 9827-4000
Area of application : Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.
- Industrial applications.

2. Hazards identification

Classification : F; R11
R52/53
Risk phrases : R11 - Highly flammable.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Statement of hazardous/dangerous nature : NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3. Composition/information on ingredients

Mixture : Yes.
CAS number : Mixture.

Ingredient name	CAS number	Concentration
ethanol	64-17-5	50 - 100
oils, ginger	8007-08-7	1 - 5
GINGER, EXT.		1 - 5
oils, ginger	8007-08-7	0.1 - 1
lemon, ext.	84929-31-7	0.1 - 1
bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl-, exo-	124-76-5	0 - 0.1
6-octen-1-ol, 3,7-dimethyl-	106-22-9	0 - 0.1

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

4. First-aid measures

First-aid measures

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4 . First-aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

5 . Fire-fighting measures

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.

- Special exposure hazards** : This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Highly flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- Hazchem code** : 3[Y]E

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilt material.
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

7 . Handling and storage

- Handling** : Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Avoid contact of spilt material and runoff with soil and surface waterways.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8 . Exposure controls/personal protection

Occupational exposure limits

Ingredient name

ethanol

Exposure limits

NOHSC (Australia, 8/2005).

TWA: 1880 mg/m³ 8 hour/hours.

TWA: 1000 ppm 8 hour/hours.

8 . Exposure controls/personal protection

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
Engineering measures	: Use only with adequate ventilation. If user operations generate dust, fumes, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid.
Colour	: Brown.
Odour	: Characteristic.
Boiling point	: The lowest known value is 78.35°C (173°F) (ethanol). Weighted average: 82.49°C (180.5°F)
Melting point	: May start to solidify at 0°C (32°F) based on data for: water. Weighted average: -92.1°C (-133.8°F)
Relative density	: 0.857 (Water = 1)
Density	: The only known value is 1 g/cm ³ (water).
Flash point	: Closed cup: 19°C (66.2°F).
Vapour density	: The highest known value is 1.6 (Air = 1) (ethanol).
Auto-ignition temperature	: The lowest known value is 398.85°C (749.9°F) (ethanol).
Evaporation rate (butyl acetate = 1)	: 0.36 (water) compared with (n-BUTYL ACETATE=1)
Solubility	: Easily soluble in methanol, diethyl ether. Very slightly soluble in cold water.

10 . Stability and reactivity

Stability : The product is stable.

11 . Toxicological information

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Eye contact : No known significant effects or critical hazards.

Potential chronic health effects

Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs: blood, the reproductive system, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12 . Ecological information

Other adverse effects : Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13 . Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG	1197	EXTRACTS, FLAVOURING, LIQUID mixture	3	II		Hazchem code: 3[Y]E Initial emergency response guide: 3A1
ADR	1197	EXTRACTS, FLAVOURING, LIQUID	3	II		-
IMDG	1197	EXTRACTS, FLAVOURING, LIQUID	3	II		-
IATA	1197	EXTRACTS, FLAVOURING, LIQUID	3	II		-

PG* : Packing group

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Ingredient name

No listed substance

Schedule

Control of Scheduled Carcinogenic Substances

Ingredient name

No listed substance

Schedule**EU Classification**: F; R11
R52/53**HCS Classification**: Flammable liquid
Target organ effects

16 . Other information

Enquiries regarding MSDS content should be directed to:

Technical Department

Telephone no.: (02) 9827-4000

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Material Safety Data Sheet

CREAMING SODA IMIT FLAVOUR A



1 . Chemical Product and Company Identification

STATEMENT OF HAZARDOUS NATURE

Not classified as hazardous according to the criteria of NOHSC but classified as dangerous goods according to the ADG Code.

COMPANY DETAILS

Manufacturer

Quest International Australia Limited,
12 Britton Street, Smithfield NSW 2164

Emergency telephone number : (02) 9827-4000

IDENTIFICATION

Product name : CREAMING SODA IMIT FLAVOUR A

Product Code : DC06873

USES

Area of Application : Industrial applications.

2 . Composition/information on ingredients

Mixture : Yes.

Chemical name	CAS No.	% by Weight
ETHANOL	64-17-5	25-50
GERANIOL	106-24-1	0.1-1
PENTYL ACETATE	123-92-2	0-0.1
ISOBUTYL ACETATE	110-19-0	0-0.1
BENZALDEHYDE, 4-HYDROXY-3-METHOXY-WATER	121-33-5	5-10
	7732-18-5	25-50

Other ingredients, determined not to be hazardous according to NOHSC criteria, make up the product concentration to 100%.

3 . Hazards identification

Emergency Overview

Appearance : Liquid.

Odour : Characteristic.

Physical/chemical Hazards : Flammable.

Dangerous Goods Classification (ADG Code)

UN number : 1197

Proper shipping name : EXTRACTS, FLAVOURING, LIQUID

Class : 3

Sub-Risk : -

Packing group : II

Hazchem Code : 3[Y]E

Initial Emergency Response Guide : 3A1

Poison Schedule (Australia) : Not scheduled

Toxic Substances Schedule (NZ) : Not available.

Source: SUSDP

Source: NZ Toxic Substances Regulations

Potential Acute Health Effects

Inhalation : Not available.

Ingestion : Not available.

Skin contact : Sensitization of the product: Not available.
Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eye Contact : Slightly hazardous in case of eye contact (irritant).

Potential Chronic Health Effects

: Repeated or prolonged exposure is not known to aggravate medical condition.

Material Safety Data Sheet

CREAMING SODA IMIT FLAVOUR A



4 . First-aid measures

First-aid measures

Inhalation

: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

Ingestion

: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Skin contact

: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Eye Contact

: Check for and remove any contact lenses. In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs.

5 . Fire-fighting measures

Nature of Material / Extinguishing media

: SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Hazardous thermal (de)composition products

: These products are carbon oxides (CO, CO₂).

Special fire-fighting procedures

: Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

Protection of fire-fighters

: Be sure to use an approved/certified respirator or equivalent.

6 . Accidental release measures

Personal Precautions

: Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Environmental precautions and cleanup methods

: Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other noncombustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

7 . Handling and storage

Handling

: Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage

: Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store between 10 to 25°C (50 to 77°F).

Packaging materials

Recommended use

: Use original container.

8 . Exposure controls/personal protection

Occupational Exposure Limits

Ingredient Name

ETHANOL

Occupational Exposure Limits

NOHSC (Australia, 1995).

TWA: 1880 mg/m³ 8 hour(s).

TWA: 1000 ppm 8 hour(s).

PENTYL ACETATE

NOHSC (Australia, 1995).

TWA: 532 mg/m³ 8 hour(s).

TWA: 100 ppm 8 hour(s).

ISOBUTYL ACETATE

NOHSC (Australia, 1995).

TWA: 713 mg/m³ 8 hour(s).

TWA: 150 ppm 8 hour(s).

Engineering measures

: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

: Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protective equipment

Respiratory system

: Wear appropriate respirator when ventilation is inadequate.

Skin and body

: Lab coat.

Material Safety Data Sheet

CREAMING SODA IMIT FLAVOUR A



- Eyes** : Safety glasses.
- Notes** : Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716.
Eye protectors should conform to AS/NZS 1336 and AS/NZS 1337.
Chemically resistant gloves should conform to AS/NZS 2161.1.
Protective clothing should conform to AS 3765.1 or AS 3765.2.
Occupational footwear should conform to AS/NZS 2210.

9 . Physical and chemical properties

- Physical state** : Liquid.
- Colour** : Colourless. (Light.)
- Odour** : Characteristic.
- Boiling point** : The lowest known value is 78.4°C (173.1°F) (ETHANOL). Weighted average: 88.63°C (191.5°F)
- Melting point** : May start to solidify at -0.1°C (31.8°F) based on data for: WATER. Weighted average: -59.72°C (-75.5°F)
- Vapour pressure** : Not available.
- Specific gravity** : 0.929 (Water = 1)
- Density** : The only known value is 1 g/cm³ (WATER).
- Flash point** : Closed cup: 22°C (71.6°F).
- Explosive properties** : Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.
- Flammable Limits** : Not available.
- Vapour density** : The highest known value is 1.6 (Air = 1) (ETHANOL).
- Autoignition temperature** : The lowest known value is 398.9°C (750°F) (ETHANOL).
- Evaporation rate (butyl acetate = 1)** : The highest known value is 1.7 (ETHANOL) Weighted average: 1.06 compared to (n-BUTYL ACETATE=1)
- Solubility** : Easily soluble in methanol, diethyl ether, n-octanol, acetone.

10 . Stability and reactivity

- Stability** : The product is stable.
- Materials to avoid** : Not available.
- Hazardous decomposition products** : These products are carbon oxides (CO, CO₂).

11 . Toxicological information

Local effects

- Skin irritation** : Slightly hazardous in case of skin contact (irritant).
- Eye irritation** : Slightly hazardous in case of eye contact (irritant).

Toxicity Data	Test	Result	Route	Species
ETHANOL	LD50	7060 mg/kg	Oral	Rat
	LD50	6300 mg/kg	Oral	Rabbit
	LD50	3450 mg/kg	Oral	Mouse
	LDLo	1400 mg/kg	Oral	human
	LDLo	5500 mg/kg	Oral	Dog
GERANIOL, 09377	LD50	3600 mg/kg	Oral	Rat
	LD50	>5000 mg/kg	Dermal	Rabbit
AMYL ACETATE	LD50	>1600 mg/kg	Oral	Rat
	LD50	7400 mg/kg	Oral	Rabbit
ISOBUTYL ACETATE	LD50	13400 mg/kg	Oral	Rat
	LD50	4763 mg/kg	Oral	Rabbit
	LD50	>17400 mg/kg	Dermal	Rabbit
VANILLIN	LD50	3750 mg/kg	Oral	Rat
	LD50	1400 mg/kg	Oral	Guinea pig
	LD50	3925 mg/kg	Oral	Mouse
	LD50	>5000 mg/kg	Dermal	Rabbit

Specific effects

- Carcinogenic effects** : Classified None. by NIOSH [ETHANOL]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [ETHANOL].

Material Safety Data Sheet

CREAMING SODA IMIT FLAVOUR A



Mutagenic Effects : Not available.
Reproduction toxicity : Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [ETHANOL].

12 . Ecological information

Persistence/degradability : Not available.
Ecotoxicity : Not available.

13 . Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : All waste must be disposed of in accordance with Local Authority, State Pollution Control Commission, EPA or Metropolitan Waste Disposal Authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	Sub-Risk	PG	Additional Information
ADG	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	II	Hazchem Code: 3[Y]E Initial Emergency Response Guide: 3A1
IMDG	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	II	-
IATA	1197	EXTRACTS, FLAVOURING, LIQUID	3	-	II	-

15 . Regulatory information

Remarks : Not available.
Carcinogenic Substances Schedule (NOHSC) : Not available.
Australian Inventory Status : Australia (NICNAS): PENTYL ACETATE; ISOAMYL BUTYRATE; 3,4-DIHYDROCOUMARIN; ETHYL BUTYRATE; 1,3-BENZODIOXOLE-5-CARBOXALDEHYDE; ISOBUTYL ACETATE; ORANGE, SWEET, EXT.; ETHANOL; BENZALDEHYDE, 4-HYDROXY-3-METHOXY-; WATER; P-ANISALDEHYDE; 6-OCTEN-1-OL, 3,7-DIMETHYL-; GERANIOL

16 . Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Enquiries regarding MSDS Content should be directed to:

Title: Technical Department

Telephone No.: (02) 9827-4000

Date of issue : 1 December 2005

Version : 1

Page: 4/4



Material Safety Data Sheet

GINGER BEER FLAVOUR

1 . Identification of the material and supplier

Product name	: GINGER BEER FLAVOUR
Product code	: DC12356
ADG	: -
Supplier	: Quest International Australia Limited, 12 Britton Street, Smithfield NSW 2164
Emergency telephone number	(02) 9827-4000
Area of application	: Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use. - Industrial applications.

2 . Hazards identification

Classification	: R52/53
Risk phrases	: R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Statement of hazardous/dangerous nature	: NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3 . Composition/information on ingredients

Mixture	: Yes.
CAS number	: Mixture.

Ingredient name	CAS number	Concentration
oils, ginger	8007-08-7	1 - 5
lemon, ext.	84929-31-7	0.1 - 1
GINGER, EXT.		0.1 - 1
ginger, ext.	84696-15-1	0.1 - 1

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

4 . First-aid measures

First-aid measures

Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

4 . First-aid measures

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

5 . Fire-fighting measures

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
No specific hazard.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

7 . Handling and storage

Handling : Avoid contact of spilt material and runoff with soil and surface waterways.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Occupational exposure limits : **No exposure standard allocated.**

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Engineering measures : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

8 . Exposure controls/personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

- Physical state** : Liquid.
- Colour** : Brown. (Light.)
- Odour** : Characteristic.
- Boiling point** : The lowest known value is 100°C (212°F) (water).
- Melting point** : May start to solidify at 0°C (32°F) based on data for: water.
- Relative density** : 1.08 (Water = 1)
- Density** : The only known value is 1 g/cm³ (water).
- Flash point** : Closed cup: 65°C (149°F).
- Evaporation rate (butyl acetate = 1)** : 0.36 (water) compared with (n-BUTYL ACETATE=1)

10 . Stability and reactivity

- Stability** : The product is stable.

11 . Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Potential chronic health effects

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.

12 . Ecological information

- Other adverse effects** : Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13 . Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG	Not regulated.	-	-	-		-
ADR	Not regulated.	-	-	-		-
IMDG	Not regulated.	-	-	-		-
IATA	Not regulated.	-	-	-		-

PG* : Packing group

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Ingredient name

No listed substance

Schedule

Control of Scheduled Carcinogenic Substances

Ingredient name

No listed substance

Schedule**EU Classification** : R52/53**HCS Classification** : Combustible liquid

16 . Other information

Enquiries regarding MSDS content should be directed to:

Technical Department

Telephone no.: (02) 9827-4000

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Material Safety Data Sheet

BITTERS FLAVOUR

1. Identification of the material and supplier

Product name	: BITTERS FLAVOUR
Product code	: DC16534
ADG	: EXTRACTS, FLAVOURING, LIQUID
Supplier	: Quest International Australia Limited, 12 Britton Street, Smithfield NSW 2164
Emergency telephone number	(02) 9827-4000
Area of application	: Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use. - Industrial applications.

2. Hazards identification

Classification	: R10
Risk phrases	: R10 - Flammable.
Statement of hazardous/dangerous nature	: NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3. Composition/information on ingredients

Mixture	: Yes.
CAS number	: Mixture.

Ingredient name	CAS number	Concentration
ethanol	64-17-5	25 - 50
oils, cardamom	8000-66-6	0 - 0.1

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

4. First-aid measures

First-aid measures

Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

5 . Fire-fighting measures

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards :

Flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Special protective equipment for fire-fighters :

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code : 3[Y]

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilt material.

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

7 . Handling and storage

Handling : Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Storage : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8 . Exposure controls/personal protection

Occupational exposure limits

Ingredient name

ethanol

Exposure limits

NOHSC (Australia, 8/2005).

TWA: 1880 mg/m³ 8 hour/hours.

TWA: 1000 ppm 8 hour/hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

8 . Exposure controls/personal protection

Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid.
Colour	: Red.
Odour	: Characteristic.
Boiling point	: The lowest known value is 78.35°C (173°F) (ethanol). Weighted average: 91.22°C (196.2°F)
Melting point	: May start to solidify at 0°C (32°F) based on data for: water. Weighted average: -46.19°C (-51.1°F)
Relative density	: 0.96 (Water = 1)
Density	: The only known value is 1 g/cm ³ (water).
Flash point	: Closed cup: 26°C (78.8°F).
Vapour density	: The highest known value is 1.6 (Air = 1) (ethanol).
Auto-ignition temperature	: The lowest known value is 398.85°C (749.9°F) (ethanol).
Evaporation rate (butyl acetate = 1)	: 1.7 (ethanol) compared with Butyl acetate.

10 . Stability and reactivity

Stability	: The product is stable.

11 . Toxicological information

Potential acute health effects

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.

Potential chronic health effects

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Target organs	: Contains material which causes damage to the following organs: blood, the reproductive system, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12 . Ecological information

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

14 . Transport information

Regulation	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG	1197	EXTRACTS, FLAVOURING, LIQUID	3	III		Hazchem code: 3[Y] Initial emergency response guide: 3A1
ADR	1197	EXTRACTS, FLAVOURING, LIQUID	3	III		-
IMDG	1197	EXTRACTS, FLAVOURING, LIQUID	3	III		-
IATA	1197	EXTRACTS, FLAVOURING, LIQUID	3	III		-

PG* : Packing group

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Ingredient name

No listed substance

Schedule

Control of Scheduled Carcinogenic Substances

Ingredient name

No listed substance

Schedule

EU Classification : R10

HCS Classification : Flammable liquid
Target organ effects

16 . Other information

Enquiries regarding MSDS content should be directed to:

Technical Department

Telephone no.: (02) 9827-4000

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Safety Data Sheet

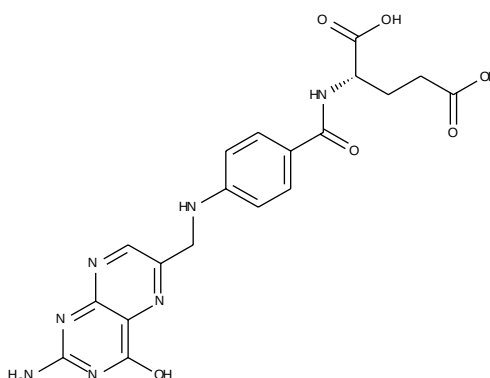
Folic Acid

1. Product and Company Identification

Product name	Folic Acid	
Product code	04 1782 3	
Company information	Manufacturer:	Local representation:
	DSM Nutritional Products AG	DSM Nutritional Products
	Wurmisweg 576	Australia Pty Limited
	CH-4303 Kaiseraugst	Level 2, Bldg. 8, 49 Frenchs Forest Rd.
	Switzerland	AUS-Frenchs Forest, NSW 2086 Australia
	Phone	+41-62 866 23 14
	Fax	+41-62 866 25 10
		+61 2 9975 8100
		+61 2 9975 5256

2. Composition/Information on ingredients

Characterization	Vitamin of the B group; for pharmaceutical preparations
Chemical name	- N-[4-[[[(2-Amino-1,4-dihydro-4-oxo-6-pteridiny)methyl]amino]-benzoyl]-L-glutamic acid
Synonyms	- Folic acid - Pteroylglutamic acid (PGA) - Vitamin Bc - Folacin
CAS number	59-30-3
EINECS number	200 419 0
Ro number	Ro 01-5288/000
Empirical formula	C ₁₉ H ₁₉ N ₇ O ₆
Molecular mass	441.40 g/mol



Folic Acid

3. Hazards identification

Most important hazards - No particular hazards known.

4. First-aid measures

Eye contact - rinse immediately with tap water for 10 minutes - open eyelids forcibly
- consult a physician if irritation persists

Skin contact - remove contaminated clothes, wash affected skin with water and soap - do not use any solvents

Inhalation - remove the casualty to fresh air and keep him/her calm
- in the event of symptoms get medical treatment

Note to physician - treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media - water spray jet, dry powder, foam, carbon dioxide

Specific hazards - severe dust explosion hazard
- formation of toxic and corrosive combustion gases (ammonia, hydrogen cyanide, nitrogen oxides) possible

Protection of fire-fighters - precipitate gases/vapours/mists with water spray

6. Accidental release measures

Methods for cleaning up - collect solids (avoid dust formation) and hand over to waste removal
- rinse with plenty of water

7. Handling and storage

Handling

Technical measures - processing in closed systems, if possible superposed by inert gas (e.g. nitrogen)
- local exhaust ventilation necessary
- take precautionary measures against electrostatic charging
- avoid dust formation; high dust explosion hazard

Suitable materials - stainless steel, aluminium, enamel, dark glass, polyethylene

Storage

Storage conditions - protected from light

Validity - 36 months, < 25 °C, in the unopened original container, see "best use before" date stated on the label

Folic Acid

Packaging materials	- tightly closing; material: dark glass, aluminium, food-approved plastics

8. Exposure controls/Personal protection

Engineering Measures	- see 7.

Monitoring

Threshold value (Roche) air	- IOEL: 0.1 mg/m ³

Analytics	- sampling on glass fibre filter and gravimetric or chemical determination

Personal protective equipment

Respiratory protection	- in case of open handling or accidental release: particle mask or respirator with independent air supply

Hand protection	- protective gloves (eg made of NR Natural Rubber, NBR Acrylnitril-Butadien-Rubber)

Eye protection	- safety glasses

9. Physical and chemical properties

Colour	yellow to orange-yellow

Form	crystalline powder

Odour	almost odourless

Solubility	1.6 mg/l, water (25 °C) insoluble, lipophilic solvents insoluble, acetone insoluble, diethyl ether well soluble, acetic acid well soluble, pyridine well soluble, phenol well soluble, alkalis well soluble, carbonate solution

Melting temperature	250 °C (decomposition above)

10. Stability and reactivity

Stability	- solutions are not heat-resistant - protected from light, crystalline folic acid is heat-resistant

Conditions to avoid	- UV light - light

Folic Acid

Materials to avoid

- acids, bases, reducing agents
- strong oxidizing agents, metal ions

11. Toxicological information

Acute toxicity

- LD₅₀ > 10'000 mg/kg (oral, mouse)
- LD₅₀ > 8'000 mg/kg (oral, rat)
- LD₅₀ 239 mg/kg (i.v., mouse)
- LD₅₀ 500 mg/kg (i.v., rat)
- LD₅₀ > 85 mg/kg (i.p., mouse)

Sensitization

- folic acid allergies are very rare (man)

Chronic toxicity

- low toxicity (human), oral intake of 15 mg/d had no side effects

Note

- dosage upon deficiency 1-5 mg daily
- RDA (recommended dietary allowance):
adults: 0.4 mg (Germany); 0.2 mg (USA)
pregnant women: 0.8 mg (Germany); 0.4 mg (USA)

12. Ecological information

Inherent biodegradability

- well inherently biodegradable
82 %, 14 days
(Zahn-Wellens test, OECD No. 302 B)

Ecotoxicity

- barely toxic for fish (nominal concentration > 100 mg/l) (rainbow trout)
LC₀ > 500 mg/l
(OECD No. 203)
- barely toxic for planktonic crustaceans (nominal concentration > 100 mg/l) (Daphnia magna)
NOEC (48 h) 100 mg/l
(OECD No. 202)

Air pollution

- observe local/national regulations

13. Disposal considerations

Waste from residues

- incinerate in qualified installation with flue gas scrubbing
- observe local/national regulations regarding waste disposal

14. Transport information

Note

- not classified by transport regulations

Folic Acid

15. Regulatory information

Note	- no classification and labelling according to EU directives
Water hazard class (Germany)	1: weakly hazardous for water (according to annex 1 or 2 of directive VwVwS of 17.05.1999)

16. Other information

Use	- ingredient in pharmaceutical preparations
Safety-lab number	- BS-4034 - BS-8399
Edition documentation	- changes from previous version in sections 2, 5, 8, 16

Important Notice: DSM N.V., headquartered in Heerlen, The Netherlands, has acquired the vitamins, carotenoids, enzymes, food and feed ingredients, cosmetics ingredients and fine chemicals business (VFC Business) of the Roche group of companies, headquartered in Basel, Switzerland. Within the United States, DSM Nutritional Products, Inc. has purchased certain assets and assumed certain liabilities of the VFC Business formally conducted by Roche Vitamins Inc. Please note that corporate names, trade names, trade and service marks and domain names containing the word "Roche" and the "Roche" logo will continue to appear on our business documentation during our transition. We appreciate your understanding and cooperation as we complete our rebranding program. Should you have any questions, or if DSM can be of further assistance to you, please do not hesitate to contact your Account Manager or our Account Management Center at: +41-62 866 23 14.

Material Safety Data Sheet

Company Name: Taste Master Pty Ltd
Address: 12A Acorn Rd
Camden Park SA 5038

This document is current as at
28/08/2007

Telephone number: 08 8350 9999
Emergency phone: 0412 441 844

Material Identification

Product Name: FPI0240 Raspberry Flavour

Other Names: Raspberry Flavour

UN Number: 1197

Packaging group II

Proper Shipping Name: Extracts, flavouring, liquid

IATA Note: AVIATION REGULATED SOLID OR LIQUID

DGClass: 3

Subsidiary risk: None

Poisons Schedule: Not scheduled

HAZCHEM code: 2(Y)E

Use: This product is used as a food flavouring, food ingredient, or fragrance.
Not regarded as hazardous according to NOHSC criteria

Physical Data

Appearance: Liquid

Boiling Point: Not established

Melting Point: Not relevant

Vapour Pressure: Not established

Specific Gravity: 0.891

Flash Point: 15 deg C

Flammability Limits: Not established

Solubility: Water soluble

Other Properties:

Ingredients: Formula confidential
(In the event of a genuine medical emergency formulation details will be released to appropriately qualified personnel.)

Chemical Entity	Cas No	Proportion
Flavouring substances	None allocated	10 - 30 %
Water	None allocated	10 - 30 %
Ethanol	64-17-5	> 60 %

Health Hazard Information

Health Effects

Acute

Swallowed: Concentrated product not to be consumed undiluted. Ingestion of small amounts may cause drunkenness. Ingestion of large amounts can cause nausea, dizziness and symptoms of CNS depression.

Eye: May cause irritation. Avoid contact with eyes.

Skin: Avoid contact with skin. Contact may cause irritation.

Inhaled: No damage to health expected, avoid inhalation

Chronic

No specific information available for this product.

First Aid

Swallowed: If poisoning occurs, contact a doctor. If swallowed more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF.

Eye: Flush eyes with water for at least 15 minutes, lifting eyelids occasionally. Contact a physician if irritation persists.

Skin: Wash contaminated skin with plenty of soap and water. If irritation occurs seek medical advice. Contaminated clothing should be laundered before re-use.

Inhaled: Remove casualty to fresh air. Allow casualty to assume a comfortable position. Keep casualty warm and allow to rest. If breathing is difficult seek medical attention.

Advice to doctor: No specific available, treat symptomatically.

Precautions For Use

Exposure Standards: Not established for this material

Engineering Controls: Use this product in a well ventilated area.
Keep containers closed.

Personal Protection: Avoid breathing vapour, avoid eye and skin contact. Use impervious nitrile gloves & general use industrial safety safety glasses when handling the product. If inhalation risks exist, wear an organic vapour respirator. Wash hands before eating, or smoking.

Flammability:

Safe Handling Information

Storage Precautions: Must be stored in accordance with relevant state and territory dangerous goods regulations. Containers should be tightly sealed and stored in cool well ventilated areas away from ignition sources.

Cleanup Methods: Extinguish all ignition sources. Wear protective clothing. Collect with absorbent material. Wash contaminated area with large quantities of water. Dispose of absorbent and material according to local

regulations.

Fire / Explosion Hazard:

Extinguishing Media: Use: Foam, Carbon dioxide, Dry chemical

Other Information: None available

UNCONTROLLED
COPY



CHR HANSEN

Gardenia Extract B-WS

Water-soluble Liquid

Safety Data Sheet

1. Product and company identification

Product name: Gardenia Extract B-WS
General product code: 667682
Intended use: As a colour or flavour in food products
Supplier: Chr. Hansen Pty Ltd / 49 Barry Street / Bayswater 3153/Australia / phone +61 3 9762 9600

2. Statement of Hazardous Nature (in line with NOHSC 2011 (2003))

Not classified as Hazardous according to criteria of Work Safe Australia.

3. Composition/information on ingredients

Gardenia Extract B-WS is a dark blue liquid preparation, produced by ethanol extraction of Gardenia jasminoides. The preparation contains flavourings, pigments and other ingredients from the plant.

Hazardous ingredients:	Percentage:	Classification:
Ethanol	20%	Non Hazardous ($\leq 24\%$ exempt from Class 3)

4. Hazards identification

Health effects:	Skin contact : None, but staining may occur. Eye contact : Irritation may occur.
Environmental effects:	None identified.
Physical and chemical hazards:	None identified.

5. First aid measures

Inhalation:	Seek fresh air.
Skin contact:	Wash with soap and water. If irritation occurs, obtain medical attention.
Eye contact:	Rinse eye immediately with plenty of water for at least 5 minutes; remove contact lenses before rinsing. Seek medical attention.
Ingestion:	Seek fresh air.

13.7.07 /1

6. Fire-fighting measures

Extinguishing media:

CO2, foam, dry chemicals.

Special measures:

Normal procedures to be used, no special procedures known.

Unusual fire or explosion hazard:

None known.

Special protective equipment:

Mask and gloves

7. Accidental release measures

Methods for cleaning up:

Absorb spillage with inert materials, wash area with large quantity of water.

8. Handling and storage

Handling:

Handle in accordance with good manufacturing practice.

Storage:

Protect from exposure to air and light. Keep the product cool (4-8°C). Do not freeze. Shelf life is minimum 12 months in unopened containers at the above storage conditions. It is recommended that the product should only be handled in a clean environment. Prolonged exposure to the atmosphere, before addition to the food product should be avoided.

9. Exposure controls/personal protection

Respiratory protection:

Normally none needed.

Hand protection:

Protective gloves

Eye protection:

Protective gloves

Skin and body protection:

Gloves to prevent staining.

10. Physical and chemical properties

Appearance/odour:

Dark blue liquid

PH:

5.0 – 6.0

Flash point, °C:

Not applicable

Boiling point, °C:

Not applicable

Melting point, °C:

Not applicable

Density, kg/l:

Approximately 1.05 kg/l.

13.7.07 /2

11. Stability and reactivity

Materials and conditions to avoid:

Hazardous decomposition products:

Strong oxidizing agents.

CO and CO₂ may be formed when burning.

12. Toxicological information

Pigment: Acceptable Daily Intake (ADI):

Acute toxicity:

No ADI value has been allocated.

No significant adverse affects.

13. Ecological information

Biodegradability:

Product is biodegradable. It is not expected to have any detrimental impact on the environment.

14. Disposal considerations

Waste disposal:

Contact local authorities

15. Transport information

ADR/RID:

-

ADNR/IMDG:

-

ICAO/IATA-DGR:

-

UN number:

-

Note:

Not classified by transport regulations.

16. Regulatory information

Hazard label:

17. Other information

This information is to our knowledge true and correct and presented in good faith. No warranty guarantee or freedom from patent infringement is implied or inferred. This information is offered solely for your consideration and verification.

13.7.07 /3

REPLACES: August 2001 issue

DATE OF ISSUE: April 2003

COMPANY DETAILS

Company: H. B. Fuller Company
Address: 16-22 Red Gum Drive, Dandenong South VIC 3175
Telephone: (03) 9797 6222
Emergency Telephone No: 1800 033 111

Not classified as hazardous according to criteria of Worksafe Australia

IDENTIFICATION

Product Name: HM 0065
Other Names: Hot melt adhesive
Manufacturer's Code: Not applicable
UN Number: None assigned
Dangerous Goods Class: None assigned
Subsidiary Risk: None assigned
Hazchem Code: None assigned
Poisons Schedule: Not scheduled
Packaging Group: Not applicable
Use: Hot melt adhesive used for case and carton sealing where a fast set is required.
The adhesive is applied in an industrial environment with purpose built machinery.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance: Pale straw solid
Melting Point: approx. 107°C
Boiling Point: Not established
Vapour Pressure: Not applicable
Specific Gravity: < 1
Flashpoint: > 200°C
Flammability Limits: Not applicable
Solubility in water: Insoluble in water

OTHER PROPERTIES:

No relevant data

INGREDIENTS:

Chemical Entity	CAS No	Proportion
Synthetic hydrocarbon resin	Not available	Med
Modified natural resin	Not available	High
Ethylene vinyl acetate copolymer	24937-78-8	High
Paraffinic wax	Not available	Med
Other ingredients determined not to be hazardous	Not applicable	Low

Low <10% Med. 10-30% High 30-60% V High >60%

HEALTH HAZARD INFORMATIONHEALTH EFFECTS***Acute:***

Swallowed:

Not hazardous in normal industrial use. Ingestion of small amounts of solid material is not expected to cause harm. Ingestion of molten material will cause thermal burns. Toxicology tests have not been performed.

Eye:

No health effects due to the solid material. When molten, vapours and fumes may cause irritation. When molten direct contact will cause thermal burns.

Skin:

No known effects due to the solid material. Direct contact will cause thermal burns if the material is in its molten state.

Inhaled:

No known effects due to the solid material. When molten, vapours and fumes may cause irritation of the nose, throat and respiratory tract.

Chronic:

No anticipated chronic effects.

FIRST AID

Swallowed:

If swallowed, do NOT induce vomiting. Give one glass of water or milk. Call a doctor. Never give anything by mouth to an unconscious person.

Eyes:

If contact with solid product occurs, irrigate eye with copious amounts of water to remove adhesive particles. If contact with the molten material occurs, irrigate with copious amounts of water and SEEK IMMEDIATE MEDICAL ATTENTION.

Skin:

None required for normal industrial handling of this product in the solid form. If contact with molten material occurs, immerse contact area in cold, clean water immediately. Do not attempt to remove set product. Cover contact area with wet compresses and take subject to a doctor immediately.

Inhaled:

Remove victim from exposure - avoid becoming a casualty. Keep, warm, comfortable and at rest until fully recovered.

First Aid Facilities:

Burn creme, bandages, eyewash station, emergency showers.

ADVICE TO DOCTOR

Treat symptomatically.

PRECAUTIONS FOR USE

This product also contains trace amounts of residual of vinyl acetate monomer. Observe exposure standards.

Exposure Standards [NOHSC:1003(1995)]:	TWA	Hazard	Route
Vinyl acetate monomer	10 ppm	C(3)	Inh
Paraffin wax fumes	2 mg/m ³		Inh

C(x): Carcinogen Category x; **Sen:** Sensitiser; **Sk:** Skin absorption; **Inh:** Inhalation

Engineering Controls:

None required if the material is in its solid state. When molten use exhaust ventilation. Ensure that ventilation is sufficient to control exposure levels below airborne exposure limits.

Personal Protection:

Wear overalls and safety glasses when working with the molten material. Application should be performed in conditions of adequate ventilation. Where an inhalation risk exists, wear organic vapour-particulate respirator. Ensure that the cartridges are correct for the

potential air contamination and are in good working order (For selection guide see AS 1715). Always wash hands before smoking, eating, drinking or using the toilet.

Flammability:

Combustible solid. Guard against thermal burns. Avoid breathing fumes emanating from the molten material.

SAFE HANDLING INFORMATION**Storage and Transport:**

Keep containers securely sealed and protected against physical damage. Not considered Dangerous Goods as defined in the ADG Code.

Hazardous Polymerisation:

Not established

Incompatibilities:

Not established

Spills and Disposal:

Contain -prevent contamination of waterways and drains. If molten, allow to solidify then scrape up and place in disposal container. For disposal, refer to state land waste management authority. Normally suitable for use as land fill by approved agent.

Fire/Explosion Hazard:

Combustible solid. On burning will emit carbon monoxide and other hazardous fumes. Avoid using water on molten material to reduce splattering and spreading of the fire. Fire fighters to wear full protective clothing and self-contained breathing apparatus.

Extinguishing media:

Foam, carbon dioxide, dry chemical powder.

OTHER INFORMATION

No data

CONTACT POINT

Technical Manager (03) 9797 6222

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular, how to safely handle and use the product in the workplace. Since H.B. Fuller Company Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use then product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for the products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

SAFETY DATA SHEET
Australian version - NOHSC:2011 (2003)

HYDROGEN PEROXIDE ASEPTIC PACKAGING GRADES

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance/preparation

Product name	:	HYDROGEN PEROXIDE ASEPTIC PACKAGING GRADES
Synonyms	:	Peroxide, Hydroperoxide, Hydrogen dioxide
Commercial Product Name	:	INTEROX ® VALSAN, INTEROX ® AG-Bath
Molecular formula	:	H ₂ O ₂
Molecular Weight	:	34 g/mol

1.2. Use of the Substance/Preparation

Recommended use	:	- cleaning agent
		- Disinfectants and general biocidal products

1.3. Company/Undertaking Identification

Address	:	SOLVAY INTEROX Pty Ltd MCIPHERSON STREET, 20-22 AUS- 2019 BANKSMEADOW

Telephone	:	61293168000

Telefax	:	61293166445

1.4. Emergency telephone number

Telephone	:	1 800 023 488 (Emergency 24 Hour) +44 1865 407333 [CareChem 24] (Australia, New Zealand) AU: +61-2-93168000 (Product information)

2. HAZARDS IDENTIFICATION

Appearance	:	liquid
Colour	:	colourless
Odour	:	pungent

- Classified as hazardous according to criteria of NOHSC.
- Classified as dangerous goods according to the ADG Code
- Corrosive
- Not combustible.
- Contact with combustible material may cause fire.
- Risk of explosion.



3. COMPOSITION/INFORMATION ON INGREDIENTS

Hydrogen peroxide

CAS-No.	:	7722-84-1
Symbol(s)	:	O, C
R-phrased(s)	:	R 8, R34
Concentration	:	≥ 34.90 - ≤ 35.50 %

4. FIRST AID MEASURES

4.1. Inhalation

- Remove to fresh air.
- If symptoms persist, call a physician.

4.2. Eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Consult with an ophthalmologist immediately in all cases.

4.3. Skin contact

- Remove contaminated shoes, socks and clothing, under the shower if necessary; wash the affected skin with running water.
- Keep warm (blanket), provide clean clothing.
- Consult a physician.

4.4. Ingestion

The following actions are recommended :

- Call a physician immediately.
- Take victim immediately to hospital.

If victim is conscious:

- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.

If victim is unconscious but breathing:

- Artificial respiration and/or oxygen may be necessary.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- Large quantities of water, water spray.

5.2. Extinguishing media which must not be used for safety reasons

- None.

5.3. Special exposure hazards in a fire

- Oxygen released on exothermic decomposition may support combustion in case of surrounding fire.
- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.

5.4. Special protective equipment for fire-fighters

- Evacuate personnel to safe areas.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- In the event of fire, wear self-contained breathing apparatus.
- When intervention in close proximity wear acid resistant over suit.
- Clean contaminated surface thoroughly.



5.5. Other information

- If safe to do so, remove the exposed containers, or cool with large quantities of water.
- Approach from upwind.
- Evacuate personnel to safe areas.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.
- HAZCHEM Code: 2P

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Refer to protective measures listed in sections 7 and 8.
- Isolate the area.
- Keep away from incompatible products
- Prevent further leakage or spillage if safe to do so.
- In case of contact with combustible materials, avoid product drying out, by dilution with water.

6.2. Environmental precautions

- Small quantities can be discharged into the sewer with large quantities of water.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods for cleaning up

- If possible, dam large quantities of liquid with sand or earth.
- Dilute with plenty of water.
- Do not add chemical products.
- Treat recovered material as described in the section "Disposal considerations".
- Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

7.1. Handling

- Use only in well-ventilated areas.
- Keep away from heat.
- Keep away from incompatible products
- Prevent all contact with organics.
- Use only equipment and materials which are compatible with the product.
- Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
- Never return unused material to storage receptacle.
- Ascertain that an adequate supply of water is available in the event of an accident.
- Containers and equipment used to handle the product should be used exclusively for that product.

7.2. Storage

- Keep in a cool, well-ventilated place.
- Keep away from heat.
- Keep away from incompatible products
- Keep away from combustible material.
- Keep in container fitted with safety valve or vent.
- Keep in original packaging, closed.
- Keep in a bunded area.
- Regularly check the condition and temperature of the containers.
- Information about special precautions needed for bulk handling is available on request.

7.3. Specific use(s)

- For further information, please contact: Supplier



7.4. Packaging material

- aluminium 99,5 %
- stainless steel 304L / 316L
- Approved grades of HDPE.

7.5. Other information

- Warn people about the dangers of the product.
- Refer to protective measures listed in sections 7 and 8.
- Do not confine the product in a circuit, between closed valves, or in a container without a vent.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limit Values

Hydrogen peroxide

- US. ACGIH Threshold Limit Values 2005
TWA = 1 ppm
- WEL (UK) 2005
TWA = 1 ppm
TWA = 1.4 mg/m³
- WEL (UK) 2005
STEL = 2 ppm
STEL = 2.8 mg/m³
- TLV (NOHSC) 11/2004
TWA = 1 ppm
TWA = 1.4 mg/m³

8.2. Exposure controls

- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.
- Refer to protective measures listed in sections 7 and 8.

8.2.1. Occupational exposure controls

8.2.1.1. Respiratory protection

- In case of emissions, face mask with type NO-P3 cartridge.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.

8.2.1.2. Hand protection

- Wear suitable gloves.
- Recommended materials : PVC, rubber

8.2.1.3. Eye protection

- Chemical resistant goggles must be worn.
- If risk of splashing, chemical proof goggles/face shield.

8.2.1.4. Skin and body protection

- protective suit
- Apron/boots of PVC, rubber if risk of splashing.

8.2.1.5. Hygiene measures

- Shower and eye wash stations.
- Handle in accordance with good industrial hygiene and safety practice.

8.2.2. Environmental exposure controls

- Dispose of rinse water in accordance with local and national regulations.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information (appearance, odour)

Appearance	: liquid
Colour	: colourless
Odour	: pungent

9.2. Important Health Safety and Environmental Information

pH	: 1 - 4 <i>Remarks: Apparent pH</i>
Boiling point/range	: 108 °C (H ₂ O ₂ 35 %)
Flash point	: <i>Remarks: The product is not flammable.</i>
Flammability (solid, gas)	: <u>Lower explosion limit:</u> <i>Remarks: The product is not flammable.</i>
Explosive properties	: <i>Remarks: With flammable liquids.</i> : <i>Remarks: With certain materials (see section 10).</i> : <i>Remarks: In case of heating:</i>
Oxidizing properties	: <i>Remarks: Oxidizer</i>
Vapour pressure	: 12 mbar <i>Temperature: 20 °C</i> <i>Remarks: Total pressure (H₂O₂ + H₂O) (H₂O₂ 50 %)</i> : 72 mbar <i>Temperature: 50 °C</i> <i>Remarks: Total pressure (H₂O₂ + H₂O) (H₂O₂ 50 %)</i> : 1 mbar <i>Temperature: 30 °C</i> <i>Remarks: Partial pressure (H₂O₂) (H₂O₂ 50 %)</i>
Relative density / Density	: 1.13 (H ₂ O ₂ 35 %)
Solubility	: Soluble in: : water : Polar organic solvents
Partition coefficient (n-octanol/water)	: <u>log Pow:</u> -1.1
Viscosity	: Viscosity 1.07 mPa.s <i>Temperature: 20 °C</i> (H ₂ O ₂ 27,5 %)
Vapour density	: 1 (H ₂ O ₂ 50 %)

9.3. Other data

Freezing point:	: -33 °C (H ₂ O ₂ 35 %)
Autoinflammability	: <i>Remarks: The product is not flammable.</i>



Surface tension : 74 mN/m
Remarks: 20 °C (H₂O₂ 27,5 %)

Decomposition temperature : ≥ 60 °C
Remarks: Self-Accelerating decomposition temperature (SADT)
: < 60 °C
Remarks: Slow decomposition

10. STABILITY AND REACTIVITY

10.1. Stability

- Potential for exothermic hazard

10.2. Conditions to avoid

- Heat.
- contamination

10.3. Materials to avoid

- acids
- bases
- metals
- Salts of metals
- reducing agents
- organic materials
- flammable materials

10.4. Hazardous decomposition products

- oxygen

11. TOXICOLOGICAL INFORMATION

11.1 Toxicological data

Acute oral toxicity

- LD₅₀, rat, 841 mg/kg (H₂O₂ 60 %)
- LD₅₀, rat, 1,232 mg/kg (H₂O₂ 35 %)

Acute inhalation toxicity

- LC₅₀, 4 h, rat, 2,000 mg/m³ (Hydrogen peroxide)
- LC₀, 1 h, mouse, 2,170 mg/m³ (Hydrogen peroxide)

Acute dermal toxicity

- LD₅₀, rabbit, $> 2,000$ mg/kg (H₂O₂ 35 %)

Skin irritation

- rabbit, irritant (skin) (H₂O₂ < 50 %)
- rabbit, corrosive effects, 1 h (H₂O₂ ≥ 50 %)

Eye irritation

- rabbit, Risk of serious damage to eyes. (H₂O₂ 70 %)

Irritation (other route)

- mouse, Respiratory irritation (RD₅₀), 665 mg/m³ (Hydrogen peroxide)

Sensitization

- guinea pig, Did not cause sensitization on laboratory animals.

Chronic toxicity

- Oral, Prolonged exposure, rat/mouse, Target Organs: gastro-intestinal system, observed effect
- Inhalation, Repeated exposure, dog, NOEL: 7 ppm, irritant effects

Carcinogenicity

- Oral, Prolonged exposure, mouse, Target Organs: duodenum, carcinogenic effect



- Dermal, Prolonged exposure, mouse, Animal testing did not show any carcinogenic effects.
- Oral, Prolonged exposure, rat, Animal testing did not show any carcinogenic effects.

Genetic toxicity in vitro

- In vitro, without metabolic activation, mutagenic effects

Genetic toxicity in vivo

- In vivo, Animal testing did not show any mutagenic effects.

Possible hazards (summary)

- Toxic effect linked with corrosive properties
- The carcinogenic effect found in animals is not demonstrated in human

11.2. Health effects

Main effects

- The product causes burns of eyes, skin and mucous membranes.
- The seriousness of the lesions and the prognosis of intoxication depend directly on the concentration and duration of exposure.

Inhalation

- Irritating to mucous membranes
- cough
- In case of repeated or prolonged exposure: risk of sore throat, nose bleeds, chronic bronchitis.

Eye contact

- Severe eye irritation, watering, redness and swelling of the eyelids.
- Risk of serious or permanent eye lesions.

Skin contact

- Irritation and temporary whitening at contact area.
- Causes burns.

Ingestion

- Paleness and cyanosis of the face.
- Severe irritation, risk of burns and perforation of the gastrointestinal tract accompanied by shock.
- Excessive fluid in the mouth and nose, with risk of suffocation.
- Risk of throat (o)edema and suffocation.
- Bloating of stomach, belching.
- Nausea and vomiting (bloody).
- cough
- Risk of chemical pneumonitis from product inhalation.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Fishes, Pimephales promelas, LC50, 96 h, 16.4 mg/l
- Fishes, Pimephales promelas, NOEC, 96 h, 5 mg/l
- Crustaceans, Daphnia pulex, EC50, 48 h, 2.4 mg/l
- Crustaceans, Daphnia pulex, NOEC, 48 h, 1 mg/l

Chronic toxicity

- Remarks: no data available
- Algae, various species, EC50, from 72 - 96 h, from 3.7 - 160 mg/l
Remarks: fresh water
- Algae, Nitzschia closterium, EC50, from 72 - 96 h, 0.85 mg/l
Remarks: salt water

12.2. Mobility

- Air, Henry's law constant (H) = 1 mPa.m³/mol
Conditions: 20 °C
Remarks: non-significant volatility



- Air, condensation on contact with water droplets
Remarks: rain washout
- water
Remarks: non-significant evaporation
- Soil/sediments
Remarks: non-significant evaporation and adsorption

12.3. Persistence and degradability

Abiotic degradation

- Air, indirect photo-oxidation, $t_{1/2}$ from 10 - 20 h
Conditions: sensitizer: OH radicals
- water, redox reaction, $t_{1/2}$ from 2.5 d, 10000 ppm
Conditions: mineral and enzymatic catalysis, fresh water
- water, redox reaction, $t_{1/2}$ from 20 d, 100 ppm
Conditions: mineral and enzymatic catalysis, fresh water
- water, redox reaction, $t_{1/2}$ from 60 h
Conditions: mineral and enzymatic catalysis, salt water
- Soil, redox reaction, $t_{1/2}$ from 15 h
Conditions: mineral catalysis

Biodegradation

- aerobic, $t_{1/2} < 1$ min
Conditions: biological treatment sludge
Remarks: rapid and considerable biodegradation
- aerobic, $t_{1/2}$ from 0.3 - 2 d
Conditions: fresh water
Remarks: rapid and considerable biodegradation
- anaerobic
Remarks: not applicable
- Effects on waste water treatment plants, Inhibitor > 200 mg/l
Remarks: inhibitory action

12.4. Bioaccumulative potential

- log Pow -1.1
Result: non-bioaccumulable (enzymatic metabolism)

12.5. Other adverse effects

- Study in progress

12.6. Possible hazards (summary)

- Toxic to aquatic organisms.
- Nevertheless, hazard for the environment is limited due to product properties:
- Does not bioaccumulate.
- . considerable abiotic and biotic degradability.
- . no toxicity of degradation products (H₂O and O₂).

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- In accordance with local and national regulations.
- Small quantities:
- Dilute with plenty of water.
- After this treatment, the product can be discharged into the sewer.
- Large quantities:
- Contact manufacturer.

13.2. Packaging treatment

- Rinse the empty containers with plenty of water and treat the effluent in the same way as waste.



- Do not rinse the dedicated containers.
- The empty and clean containers are to be reused in conformity with regulations.

14. TRANSPORT INFORMATION

UN-No	2014
IATA-DGR	
Class	5.1
Sub-risks	CORROSIVE
Packing group	II
ICAO-Labels	OXIDIZER + CORROSIVE
Proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION	
IMDG	
Class	5.1
Sub-risks	Corrosive
Packing group	II
IMO-Labels	OXIDIZING AGENT + CORROSIVE
HI/UN No.	2014
EmS:	F-H, S-Q
Proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION	
ADG	
Class	5.1
Sub-risks	8
Packing group	II
ADG-Labels	5.1 + 8
HI/UN No.	58/2014
Proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION	
Remarks:	
- HAZCHEM Code: 2P	

15. REGULATORY INFORMATION

15.1. Label

- Hazardous components which must be listed on the label: Hydrogen peroxide
 - Classified as hazardous according to criteria of NOHSC.
- | | | |
|-------------|--------|---|
| Symbol(s) | C | Corrosive |
| R-phrase(s) | R34 | Causes burns. |
| S-phrase(s) | S 1/2 | Keep locked up and out of the reach of children. |
| | S 3 | Keep in a cool place. |
| | S28 | After contact with skin, wash immediately with plenty of water. |
| | S36/39 | Wear suitable protective clothing and eye/face protection. |
| | S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |



15.2. Other information

- The percentage concentration of the solution has to be indicated next to the product name.

16. OTHER INFORMATION

16.1. Administrative information

- Australian version
- General revision
- Distribute new edition to clients

16.2. Text of R phrases mentioned in Section 3

- R 8: Contact with combustible material may cause fire.
- R34: Causes burns.

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.





SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON

Print Date 10.09.2008

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : LEMON
Cust. Material : SN606335
Use of the Substance/Preparation : Flavor for consumer product
Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

R-phrases : R10 Flammable.
S-phrases : S60 This material and its container must be disposed
of as hazardous waste.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s),
presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an
occupational exposure limit:

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INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON

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CAS-No.	Components	Classification	Concentration

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous 60 - 100%

4. FIRST AID MEASURES

General advice : Take Risk and Safety phrases (section 15) into account.

Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.

Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbondioxide, dry chemical, foam.

Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good

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Product LEMON

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manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.
Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

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a)while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hand protection : Avoid skin contact. Use chemically resistant gloves.

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

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INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid

Safety data

Flash point : 23.00 °C

Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG

UN-Number : 1197

Version : 1

Revision Date : 31.07.2007



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INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON

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Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

ADR

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

IATA

UN-Number : 1197
Description of the goods : Extracts, flavouring, liquid
Class : 3
Packaging group : III

IMDG_GLOBAL

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

R-phrases(s) : R10 Flammable.
S-phrases(s) : S60 This material and its container must be disposed of as hazardous waste.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

Further information

Version : 1
Revision Date : 31.07.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON

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The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

Version : 1
Revision Date : 31.07.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON EMULSION

Print Date 10.10.2008

Page 1 (7)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : LEMON EMULSION
Cust. Material : SN595759
Use of the Substance/Preparation : Flavor for consumer product
Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Not classified as dangerous goods according to the ADG Code.
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

R-phrases(s) : R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s) : S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.
Advice : When undiluted and not properly handled, can be irritating to the skin and eyes and upon inhalation.
Potential environmental effect : When spilled, can contaminate soil, ground- and surface water.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

Version : 1
Revision Date : 08.08.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product LEMON EMULSION

Print Date 10.10.2008

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This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

CAS-No.	Components	Classification	Concentration
84929-31-7		Xn, R10, R65	0 - 10 %
138-86-3	Cyclohexene, 1-methyl-4-(1-methylethenyl)-		0.25 - 1 %

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and

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disposed

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce

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possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority"

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chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : white

Safety data

Flash point : 105.00 °C
Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

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13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG

Not dangerous goods

ADR

UN-Number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(D-LIMONENE, ALPHA-PINENE)
Class : 9
Packaging group : III

IATA

Not dangerous goods

IMDG_GLOBAL

Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

R-phrases : R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases : S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Sensitising components : dipentene
May produce an allergic reaction.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

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16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

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SAFETY DATA SHEET

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Product LEMONADE

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : LEMONADE
Cust. Material : SN663249
Use of the Substance/Preparation : Flavor for consumer product
Company :
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

R-phrases : R10 Flammable.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

CAS-No.	Components	Classification	Concentration

For the full text of the R-phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

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4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

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If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material.
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls

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are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

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Physical state : liquid
Colour : colorless to pale gold
Odour : Conforms to Standard

Safety data

Flash point : 25.00 °C
Vapour pressure : Note: not determined
Relative density (20 °C) : 0.9050 - 0.9250

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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14. TRANSPORT INFORMATION

ADG

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : III

ADR

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : III

IATA

UN-Number : 1197
Description of the goods : Extracts, flavouring, liquid
Class : 3
Packing group : III

IMDG GLOBAL

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : III
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

R-phrases : R10 Flammable.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

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Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

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MATERIAL SAFETY DATA SHEET

Mango Juice Concentrate Clear 65°Brix MANGOJC

Classified as Non Hazardous & Non Dangerous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Mango Juice Concentrate Clear 65°Brix
Product Code: MANGOJC
Recommended Use: Food & Beverage products

Supplier Name: Interaust Foods Pty Ltd
Address: Suite 1
677 Boronia Road
WANTIRNA, VICTORIA, 3152

Telephone Number: +61 3 8805 4800
Fax Number: +61 3 9801 2900

Emergency Telephone: +61 3 8805 4800
000 (for fire, ambulance & police response)

Other Names: None Listed

2. HAZARDS IDENTIFICATION

Hazard Classification: Non Hazardous & Non Dangerous

Chronic Effects: No information available for the product.

Eyes: Contact may be irritating.

Inhalation: Breathing in flavour of concentrate may result in respiratory irritation.

Ingestion: No adverse effects expected. Large undiluted amounts may result in irritation to the mouth, throat and stomach.

Skin: Contact may be irritating.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name: Mango Juice Concentrate

CAS: n/a

Proportion: 100%

Synonyms: None



MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

Eyes:	Flush with water until contamination removed.
Inhalation:	Movement of exposed individual to fresh air is recommended.
Ingestion:	Rinse mouth with water. If swallowed, give a glass of water.
Skin:	Flush with water until contamination removed.
Advice to Doctor:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards:	Non Flammable
Extinguishing Media:	Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment to prevent skin and eye contact. Wash area down with excess water.

7. HANDLING AND STORAGE

Handling:	Avoid skin and eye contact. Care should be taken when manually lifting the product in its packaging.
Storage:	Store in cool, dry conditions out of direct sunlight. If product has been opened, store at -18°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:	No exposure standard allocated.
Personal Protective Equipment:	Wear overalls, hair net, safety boots, food grade rubber gloves and safety goggles. Always wash hands before and after eating, smoking, drinking or using the toilet. Wash contaminated clothing and other equipment before storage or reuse.
Engineering Controls:	Keep packaging closed when not in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pale yellow coloured, clear, uniform liquid.
Odour & Flavour:	Typical of Mango.
°Brix:	65 ± 1
Specific Gravity:	1.32
pH:	3.5 – 4.1
Titrateable Acidity (as ACA g/kg):	25 - 35
Solubility:	Very soluble in water. Limited solubility in alcohol.



MATERIAL SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Stable and non-reactive. Easily diluted in water.

11. TOXICOLOGICAL INFORMATION

Chronic Effects: No information available for the product.
Ingestion: Swallowing excessive amounts of the product may cause nausea, diarrhea and vomiting. Frequent oral doses can cause tooth erosion.
Skin: Contact with skin may result in mild irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways as increased nutrients may effect aquatic flora and fauna.
Persistence/Degradability: Readily degraded with water.

13. DISPOSAL CONSIDERATIONS

Refer to waste management authority. Dispose of material through a licensed waste contractor. Normally suitable for disposal at approved land waste sites.

14. TRANSPORT INFORMATION

UN Number: None allocated
UN Proper Shipping Name: None allocated
Class: None allocated
Packing Group: None allocated
Hazchem Code: None allocated
Special Precautions: Transport in cool, dry conditions, free from extraneous contamination.

15. REGULATORY INFORMATION

None allocated

16. OTHER INFORMATION

Date of Preparation: 23/3/07

END OF MSDS

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**Product information**

Trade name : MAXFORCE PHAROAH'S ANT

Product code : AE F149320 00 RB01 A1

Specification : 21327

Usage : insecticide

Company : Bayer Environmental Science
Durkan House
214-224 High Street
Waltham Cross
Hertfordshire EN8 7DP
United Kingdom

Telephone : +44(0)1992 784270

Telefax : +44(0)1992 784276

Emergency telephone number : 0800-220876 (UK only)
+44(0)1223-870312

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Bait (ready for use) (RB), contains:
Hydramethylnon 1% w/w

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
Hydramethylnon	67485-29-4	Xn, N	R22 R50/53	0.95

3. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice : The nature of this product, when contained in commercial packs, makes spillage unlikely. However, if significant amounts are spilled then the following advice is applicable. Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation : Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.

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- Skin contact : Wash off immediately with soap and plenty of water. Seek medical aid if at all worried.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

Notes to physician

- Symptoms : Local:; To date no symptoms are known.
- Symptoms : Systemic:; To date no symptoms are known.
- Treatment : Local treatment:
Initial treatment should be symptomatic and supportive.
- Treatment : Systemic treatment:
Initial treatment should be symptomatic and supportive.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray jet
carbon dioxide (CO₂)
dry powder
foam
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Specific hazards during fire fighting : In case of fire the evolution of dangerous gases is possible.
- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.
Whenever possible, contain fire-fighting water by bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.
- Environmental precautions : Keep people and animals away.
Do not discharge into the drains/surface water/groundwater.
If spillage enters drains leading to sewage works inform local

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water company immediately.
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for cleaning up : The nature of this product, when contained in commercial packs, makes spillage unlikely. However, if significant amounts are spilled then the following advice is applicable.
Clean up promptly by sweeping or vacuum.
Clean contaminated floors and objects thoroughly, observing environmental regulations

Additional advice : Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.
Check also for any local site procedures.

7. HANDLING AND STORAGE**Handling**

Advice on safe handling : No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.
Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion : The product is combustible.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.
Store in a place accessible by authorized persons only.

Further information on storage conditions : Protect against heat and direct sunlight
Protect against moisture.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Storage temperature : 0 - 30 °C

Suitable materials : Keep in original packaging, tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable.

Personal protective equipment

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Respiratory protection	: No personal respiratory protective equipment normally required.
Hand protection	: Chemical resistant gloves PVC gloves nitrile gloves
Eye protection	: Safety glasses, or face shield if necessary
Skin and body protection	: Light protective clothing, PVC PVC boots
Hygiene measures	: When using, do not eat, drink or smoke. Remove soiled clothing immediately. Remove soaked clothing immediately. Clean hands and face at work intervals and after work. Work in an adequately ventilated room.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	: Wax
Colour	: brown
Odour	: slight, product specific

Safety data

Flash point	: > 93 °C
Density	: 1.4 g/cm ³
Water solubility	: Note: Sparingly soluble
Partition coefficient (n-octanol/water)	: log Pow: 2.31 Note: The value mentioned relates to the active ingredient hydramethylnon.
Other information	: Combustible solid product.

10. STABILITY AND REACTIVITY

Conditions to avoid	: Note: Extremes of temperature and direct sunlight.
Materials to avoid	: None
Hazardous reactions	: No hazardous reactions when stored and handled according to prescribed instructions. Note: Stable under normal conditions.

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11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 (rat) > 5,000 mg/kg
Acute dermal toxicity	: LD50 (rabbit) > 2,000 mg/kg
Skin irritation	: rabbit Result: slight irritant effect - does not require labelling
Eye irritation	: rabbit Result: No eye irritation
Sensitization	: guinea pig Result: non-sensitizing Method: OECD 406, Buehler test

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

Bioaccumulation	: Gambusia affinis (mosquito fish) Bioconcentration factor (BCF): 100 Test substance: The value mentioned relates to the active ingredient hydramethylnon.

Ecotoxicity effects

Toxicity to fish	: LC50: 0.16 mg/l Rainbow trout Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to fish	: LC50: 1.70 mg/l Bluegill sunfish Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to daphnia	: EC50: 1.14 mg/l Water flea (Daphnia magna) Exposure time: 48 h Test substance: The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to other organisms	: LD50: 1,828 mg/kg Bobwhite quail Test substance: The value mentioned relates to the active ingredient hydramethylnon.
Toxicity to other organisms	: LD50: > 2,510 mg/kg



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Mallard duck
Test substance: The value mentioned relates to the active ingredient hydramethylnon.

13. DISPOSAL CONSIDERATIONS

- Product : In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority
Can be landfilled or incinerated, when in compliance with local regulations.
Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).
- Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste.
Empty containers can be landfilled, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. TRANSPORT INFORMATION

- ADNR** : Not dangerous goods
- ADR** : Not dangerous goods
- IATA** : Not dangerous goods
- IMDG** : Not dangerous goods
- CDG CPL** : Not dangerous goods

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.

Hazardous components which must be listed on the label:

- Hydramethylnon

Exceptional labelling of special preparations : Restricted to professional users.
To avoid risks to man and the environment, comply with the instructions for use.

R-phrase(s) : R52/53 Harmful to aquatic organisms, may cause



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long-term adverse effects in the aquatic environment.

S-phrase(s) : S35

This material and its container must be disposed of in a safe way.

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

R22 Harmful if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ready to use 'Baits' are insecticides packaged in plastic, tamper proof containers.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Changes since the last version will be highlighted in the margin. This version replaces all previous versions.

Material Safety Data Sheet

ACETONE

Infosafe No. AJ1VL **Issue Date** August 2005 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ACETONE

Product Code F00700

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Solvent used in the processing of resins, lacquers, waxes, adhesives, inks, paints and plastics.

Other Names Not Available

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

HAZARDOUS SUBSTANCE.
DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s)

Australia:
R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness and cracking.
R67 Vapours may cause drowsiness and dizziness
New Zealand:
Classified as a 3.1B - A substance that is flammable liquid: High hazard
Classified as 6.1E - A substance that is moderate acutely toxic if swallowed
Classified as 6.3B - A substance that is mildly irritating to the skin
Classified as 6.4A - A substance that is irritating to the eye

Safety Phrase (s) S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition - No smoking.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29 Do not empty into drains.
S33 Take precautionary measures against static discharges.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Acetone	67-64-1	100 %

4. FIRST AID MEASURES

Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.
Ingestion	Never give anything by mouth if victim is semi-conscious or unconscious. Immediately wash out mouth with water and then give plenty of water to drink. Seek medical attention.
Skin	Wash affected area thoroughly with copious amounts of running water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Eye wash and normal wash room facilities.
Advice to Doctor	Treat symptomatically or consult a Poisons Information Centre (Phone 131 126).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use water fog. CO2, dry chemical or alcohol foam.

Hazards from Combustion Products Carbon dioxide and carbon monoxide.

Special Protective Equipment for fire fighters Full protective clothing and self-contained breathing apparatus.

Specific Methods Use water spray to keep fire-exposed containers cool.

Specific Hazards This product is extremely flammable. Vapours are heavier than air and will 'travel' to low-level areas e.g. sumps, drains, etc. and flashback. Precautions should be taken to eliminate the build up of explosive mixtures.

Hazchem Code 2[Y]E

Unsuitable Extinguishing Media The fire could easily be spread by the use of water in the area where the water could not be contained. Water may be ineffective in fighting the fire.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Use water spray to disperse vapours and dilute spill to a non flammable mixture. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. Do not allow spill to enter drains, sewers or waterways. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling Open containers cautiously as contents may be under pressure. Use only in a well ventilated area. DO NOT store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. Do not smoke. Exposure without protection should be prevented. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Always keep in containers made of the same material as the supply container. Have

appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not stack more than 3 pallets high. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote
	Acetone	2375	1000	1185	500	
Biological Limit Values	No biological limit allocated.					
Engineering Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430.3.1: Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.					
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.					
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.					
Hand Protection	Wear gloves of impervious material ie. chemical resistant gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.					
Body Protection	Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.					

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colourless, mobile liquid.

Odour	Characteristic sweet/fruity odour.
Melting Point	-94.8°C
Boiling Point	56°C
Solubility in Water	Soluble
Solubility in Organic Solvents	Soluble in common organic solvents.
Specific Gravity	0.791 @ 20°C (water=1)
pH Value	Not available.
Vapour Pressure	187 mmHg @ 20°C.
Vapour Density (Air=1)	2.0 (Air = 1)
Volatile Component	100%
Flash Point	-20°C
Flammability	HIGHLY FLAMMABLE. This product should be stored and used in a well ventilated area away from naked flames, sparks and other sources of ignition. Electrically link and ground metal containers for transfers of the product to prevent accumulation of static electricity. Keep the container tightly closed.
Auto-Ignition Temperature	465-538°C
Flammable Limits - Lower	3%v/v
Flammable Limits - Upper	13%v/v
Molecular Weight	58.08

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of use.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition and incompatibles.
Incompatible Materials	Strong oxidizing agents, strong acids.
Hazardous	

Decomposition Products Carbon dioxide and carbon monoxide.

Hazardous Reactions Reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces. Decomposes violently in contact with nitric/sulfuric acid mixtures. Can react violently with oxidising agents.

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information Oral LD50(rat): 9750 mg/kg
Inhalation LC50 (rat): >16,000 ppm/4hr
Dermal LD50 (rabbit): >20ml/kg (slight irritation).
Eye Irritation (rabbit): Moderate.

Inhalation May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, nausea and vomiting.

Ingestion Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Skin May cause redness, itching and irritation. Prolonged contact with skin may cause blistering, and repeated contact may have a defatting effect causing dryness and cracking.

Eye Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Chronic Effects Repeated or prolonged skin contact can cause severe irritation or dermatitis. Contact with this product over long periods can aggravate pre-existing medical conditions. Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product has a potential to cause oxygen depletion in aqueous systems.
A low potential to affect aquatic organisms.
A low potential to affect secondary waste treatment microbial metabolism.
A low potential to affect the growth of some plant seedlings.
Overall this product is not expected to cause adverse environmental effects.

Persistence / Degradability This product has a high potential to degrade.
ThOD: 2.20g oxygen/g
COD: 1.12-2.07g oxygen/g
BOD-5: 0.31-1.85g oxygen/g
BOD-20: 1.78g oxygen/g

Mobility This product has a low potential to persist in the environment.

Environment Protection Do not allow product to enter drains, waterways or sewers.

Acute Toxicity

- **Fish** 96hr LC50 (fathead minnow): 7,280 - 8,120mg/l

Acute Toxicity 24hr LC50 (Daphnia): >10,000mg/l

- **Daphnia** 24hr EC50 (Daphnia): >10,000mg/l

13. DISPOSAL CONSIDERATIONS

Disposal

Considerations Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information

Australia:

This material is classified as a Class 3 (Flammable Liquid) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following:

- Class 1, Explosive
- Class 2.1, Flammable Gas, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gas
- Class 4.2, Spontaneously Combustible Substance
- Class 5.1, Oxidising Agent
- Class 5.2, Organic Peroxide
- Class 6, Toxic and Infectious Substances, if the Class 3 dangerous goods are nitromethane
- Class 7, Radioactive Substance

New Zealand:

This material is classified as a Class 3 - Flammable Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosives
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 4.2, Spontaneously combustible substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides or
- Class 7, Radioactive materials unless specifically exempted.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Class 4.3, Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides

U.N. Number 1090

Proper Shipping Name ACETONE

DG Class 3

Hazchem Code 2[Y]E

Packaging Method 3.8.3RT1

Packing Group II

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Poisons Schedule S5
S5 ; New Zealand:S4

National and or International Regulatory Information
Australia:
Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Poison Schedule: Schedule 5
New Zealand:
Scheduled as Harmful substances S4 according to the Toxic Substances Regulations 1983.

Packaging & Labelling
As required by the ADG Code.
As required by the National Code of Practice for the Labelling of Workplace Substances.
As required by the Standard for the Uniform Scheduling of Drugs and Poisons

AICS (Australia) Listed.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS
Date of creation: April 2002
Date of Review: August 2005

Contact Person/Point
Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037
New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty

Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

DOW CORNING ANTIFOAM 1520-US

Infosafe No. AD6H0 **Issue Date** April 2005 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name DOW CORNING ANTIFOAM 1520-US

Product Code A6648

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Antifoam.

Other Names None Listed

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification Not classified as hazardous according to the criteria of the NOHSC.

Risk Phrase(s)

Safety Phrase (s) S24/25 Avoid contact with skin and eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Water	7732-18-5	60-100 %
	Other ingredients determined not to be hazardous		0-30 %
	Polydimethylsiloxane	63148-62-9	10-30 %

4. FIRST AID MEASURES

Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.
Ingestion	Do NOT induce vomiting. Wash out mouth with water. If symptoms develop seek medical attention.
Skin	Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Eye wash and normal washroom facilities.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water spray, dry extinguishing media, foam, carbon dioxide.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide, silicon dioxide and formaldehyde.
Specific Hazards	Combustible liquid. This product will burn if exposed to fire.
Precautions in connection with Fire	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode. Water spray may be used to keep fire exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible

contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with large quantities, repeated or prolonged skin exposure without protection should be prevented in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.
Conditions for Safe Storage	Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour.
Engineering Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.
Respiratory Protection	Not normally required. However, if engineering controls are not effective in controlling airborne exposure then a half facepiece respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields or goggles should be worn as described in Australian Standard AS/ANZ 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection	Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

Other Information	Biological Limit Values: No biological limit allocated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White liquid.
Odour	Slight odour.
Melting Point	Not applicable
Boiling Point	100°C
Solubility in Water	Not available.
Specific Gravity	1.00 @ 25°C
pH Value	3.5
Vapour Pressure	Not available.
Vapour Density (Air=1)	Not available.
Viscosity	1500 cP
Flash Point	> 100°C (Closed Cup)
Flammability	Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purposes of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well ventilated area away from naked flames, sparks and other sources of ignition.
Auto-Ignition Temperature	Not available.
Flammable Limits - Lower	Not available.
Flammable Limits - Upper	Not available.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and other ignition sources.

Incompatible Materials	Oxidising agents.
Hazardous Decomposition Products	Carbon oxide and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.
Hazardous Reactions	May react with strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No toxicology data available for this product.
Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Skin	Skin contact may cause irritation in susceptible individuals.
Eye	Eye contact may cause stinging, blurring and tearing.
Chronic Effects	Prolonged or repeated skin contact may cause defatting leading to dermatitis.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No data available for this specific product.
Persistence / Degradability	No data available for this specific product.
Mobility	No data available for this specific product.
Environment Protection	Do not dispose of into drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Dispose of waste according to federal, EPA and state regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise combustible nature.

14. TRANSPORT INFORMATION

Transport	Australia:

Information Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:

Not classified as Dangerous Goods for transport according to the NZS 5433:1999 Transport of Dangerous Goods on Land.

Storage and Transport Not classified as dangerous goods.

15. REGULATORY INFORMATION

Regulatory Information Australia:
Not classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Poison Schedule: Not Scheduled

New Zealand:

Not scheduled according to the Toxic Substances Regulations 1983.

Poisons Schedule Not Scheduled

Not Scheduled ; New Zealand:Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS revised: April 2005
MSDS supersedes: January 2002

Contact Person/Point Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

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Material Safety Data Sheet

EPOXY RESIN R180-NZ

Infosafe No. 1HK0P **Issue Date** March 2006 **Status** ISSUED by FGI

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name EPOXY RESIN R180-NZ

Product Code F22281

Company Name FGI, division of Nuplex Industries (Aust) Pty Ltd. (ABN 25 000 045 572)

Address 14 Clearview Place BROOKVALE
NSW 2100

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9939 1399
Fax: (02) 9938 5826

Recommended Use In conjunction with epoxy hardeners for laminate and for civil engineering applications.

Other Names Not Available

Other Information NEW ZEALAND: Nuplex Industries Ltd.
12 Industry Road, Penrose, Auckland
Phone: (09) 579 2029 Fax: (09) 525 1618
Emergency Advice (NZ): Phone: 0800 154 666.

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.

Risk Phrase(s)

R43 May cause sensitization by skin contact.
R36/38 Irritating to eyes and skin.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase (s) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	bisphenol A epoxy resin	25068-38-6	60-100 %
	Bisphenol F epoxy resin	9003-36-5	10-30 %
	Benzyl Alcohol	100-51-6	10-24.99 %

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. Apply artificial respiration if not breathing. Seek medical attention.
Ingestion	Rinse mouth with water. DO NOT induce vomiting. Seek medical attention.
Skin	Wash with plenty of soap and water. Remove contaminated clothing, including shoes. Seek medical assistance if symptoms develop.
Eye	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Remove clothing if contaminated and wash skin. Seek immediate medical assistance.
First Aid Facilities	Eye wash fountains and safety showers should be easily accessible.
Advice to Doctor	Treat symptomatically, for advice, contact the Poisons Information Centre (Australia 131 126; New Zealand 0800 POISON / 0800 764 766). The product is an epoxy resin solution.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Foam, carbon dioxide, dry chemical, water fog.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide and phenolics.

Specific Methods	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full protective clothing to prevent exposure to vapours, fumes or products of combustion. Water spray may be used to cool down heat exposed containers.
Specific Hazards	Combustible liquid. This product will burn if exposed to fire.
Hazchem Code	2X

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Remove all sources of ignition. Clear the area of all unprotected personnel. Increase ventilation. Wear appropriate breathing apparatus and full protective clothing to minimise skin and eye exposure. Place inert, non-combustible absorbent such as vermiculite, sand or soil onto material. Collect the material and place into suitable labelled containers. Do not contaminate streams, rivers or water courses. Do not flush into drains or sewers. If spilled material enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Avoid skin and eye contact and breathing in vapour. Keep containers closed when not in use - check regularly for leaks. Ensure a high level of personal hygiene is maintained when using this product - always wash hands before eating, drinking smoking or using the toilet.
Conditions for Safe Storage	Store in a cool, dry, well ventilated area. This product should be stored away from foodstuffs and strong oxidising agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour.
Biological Limit Values	No Biological limit available.
Engineering Controls	Use with good general ventilation. If mists or vapours are produced local exhaust ventilation should be used.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian Standards AS/NZS 1715: Selection, Use and Maintenance of Respiratory Protective Devices and AS/NZS 1716: Respiratory Protective Devices.
Eye Protection	Wear safety glasses with side shields or chemical goggles. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear impervious gloves conforming to AS/NZS 2161: Occupational protective gloves.

Footwear Safety boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Amber liquid.

Melting Point Not available

Boiling Point Not available

Solubility in Water Insoluble.

Specific Gravity 1.15 (Water=1)

pH Value Not applicable

Vapour Pressure Not available

Flash Point 154°C (PMCC)

Flammability Keep away from heat, sparks or naked flames. Combustible liquid. Consult AS 1940 for further information on the storage and handling of flammable liquids. Handle in accordance with State or Territory regulations for flammable liquids.

Auto-Ignition Temperature Not available

Flammable Limits - Lower Not available

Flammable Limits - Upper Not available

10. STABILITY AND REACTIVITY

Chemical Stability Stable.

Incompatible Materials Oxidising and reducing agents, ammonia, amines, strong acids and alkalies.

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No LD50 data available for product.

Inhalation Vapours may be irritating to the mucous membranes and respiratory tract.

Ingestion	Ingestion may cause gastric irritation and pain, nausea and vomiting.
Skin	Irritating to skin. May cause sensitisation by skin contact.
Eye	Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.
Chronic Effects	Prolonged and repeated exposure by skin contact may cause sensitization in susceptible individuals. Allergic response and dermatitis or asthma type symptoms may occur after a single significant exposure, and sensitization may occur on single multiple minor exposures.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not available
Persistence / Degradability	Not available
Mobility	Not available
Bioaccumulative Potential	Not available
Environment Protection	Do not allow product to enter drains, waterways or sewers. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	The spilled or waste material must be disposed of in accordance with relevant local, state and federal regulations. Uncleaned packaging must be disposed of in the same manner as the material. Contaminated packaging if emptied of all residues and appropriately cleaned, may be sent to a recycling plant.

14. TRANSPORT INFORMATION

Transport Information	Australia: This material is classified as a Class 9 (Miscellaneous Dangerous Goods) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Dangerous goods of Class 9 (Miscellaneous Dangerous Goods) are incompatible in a placard load with any of the following: - Class 1, Explosive - Class 5.1, if the Class 9 substance is a fire risk substance - Class 5.2, if the Class 9 substance is a fire risk substance New Zealand: This material is classified as a Class 9 - Miscellaneous Substance according to NZS 5433:1999 Transport of Dangerous Goods on Land. Must not be loaded in the same freight container or on the same vehicle with: - Class 1, Explosives Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

(Note 3; Segregation devices may be used as to segregate dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of);

- Class 3, Flammable liquids
- Class 4.1, Flammable solids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides
- Class 6.1, Toxic substances
- Class 6.2, Infectious substances
- Class 8, Corrosive substances

And are incompatible with food and food packaging in any quantity.

U.N. Number 3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (Contains Bisphenol A epoxy resin and Bisphenol F epoxy resin)

DG Class 9

Hazchem Code 2X

Packaging Method 3.8.9

Packing Group III

EPG Number 9C1

IERG Number 47

15. REGULATORY INFORMATION

Regulatory Information Classified as hazardous according to criteria of Australian National Occupational Health & Safety Commission (NOHSC).
Classified as Hazardous according to the criteria in the New Zealand Dangerous Goods Act 1974.
Poison Schedule (Australia): S5
Poison Schedule (New Zealand): Not scheduled.

Poisons Schedule S5

S5 ; New Zealand:Not Scheduled

Hazard Category Irritant,Dangerous for the environment

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS review: March 2006
MSDS superseded: February 2004

Contact For further information ask for: For specialist advice in emergencies:

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

DOW CORNING FG-10 ANTIFOAM EMULSION

Infosafe No. AD6H5 **Issue Date** July 2006 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name DOW CORNING FG-10 ANTIFOAM EMULSION

Product Code A6647

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Antifoam.

Other Names None Listed

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Not classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Risk Phrase(s)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Polydimethylsiloxane	63148-62-9	0-9.99 %
	Ingredients determined not to be hazardous	-	Balance to 100%

4. FIRST AID MEASURES

Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.
Ingestion	Do NOT induce vomiting. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.
Skin	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Normal washroom facilities.
Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use carbon dioxide, dry chemical, and foam or water mist.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Precautions in connection with Fire	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Emergency	Wear appropriate personal protective equipment and clothing to minimise

Procedures	exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with this product, repeated or prolonged skin exposure without protection should be prevented in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. Washing hands prior to eating, drinking, smoking or using toilet facilities.
Conditions for Safe Storage	Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purposes of storage and handling. Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour.
Biological Limit Values	No biological limit allocated.
Engineering Controls	Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
Eye Protection	The use of chemical goggles or safety glasses with side shield protection is

recommended. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable work wear should be worn to protect personal clothing. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.
Odour	Some odour.
Freezing Point	Not available.
Boiling Point	Not available.
Solubility in Water	Not available.
Specific Gravity	1.00 (25°C)
pH Value	Not applicable.
Vapour Pressure	Not available.
Vapour Density (Air=1)	Not available.
Viscosity	800 CP
Volatile Component	89.00
Flash Point	>101.10°C (CC)
Auto-Ignition Temperature	Not available.
Flammable Limits - Lower	Not available.
Flammable Limits - Upper	Not available.

10. STABILITY AND REACTIVITY

Chemical

Stability	Stable under normal conditions.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition.
Incompatible Materials	Oxidizing material can cause a reaction.

Hazardous Decomposition Products Silicon oxides. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

Hazardous Polymerization Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product may irritate the gastric tract causing nausea and vomiting. Ingestion of large quantities may depress the central nervous system.
Skin	May be irritating to the skin. This can result in itching and redness of the skin.
Eye	May cause irritation to eyes. Symptoms may include redness, tearing, stinging and blurred vision.
Chronic Effects	Not expected to cause chronic health effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No data is available for this material.
Persistence / Degradability	No data is available for this material.
Mobility	No data is available for this material.
Environment Protection	Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information	Australia: Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Not classified as Dangerous Goods for transport according to the NZS
5433:1999 Transport of Dangerous Goods on Land.

**Storage and
Transport**

Not classified as dangerous goods.

15. REGULATORY INFORMATION

**Regulatory
Information**

Australia:
Not classified as hazardous according to criteria of National Occupational
Health & Safety Commission (NOHSC).
Poison Schedule: Not Scheduled

New Zealand:
Not scheduled according to the Toxic Substances Regulations 1983.

**Poisons
Schedule**

Not Scheduled

Not Scheduled New Zealand:Not Scheduled

16. OTHER INFORMATION

**Date of
preparation or
last revision of
MSDS**

MSDS reviewed: July 2006.

**Contact
Person/Point**

Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

H180 STANDARD HARDENER

Infosafe No. NLY7H **Issue Date** April 2006 **Status** ISSUED by FGI

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name H180 STANDARD HARDENER

Product Code F22180

Product Type Formulated polyamine adduct.

Company Name FGI, division of Nuplex Industries (Aust) Pty Ltd. (ABN 25 000 045 572)

Address 14 Clearview Place BROOKVALE
NSW 2100

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9939 1399
Fax: (02) 9938 5826

Recommended Use Curing agent for epoxy resins.

Other Names Not Available

Other Information NEW ZEALAND: Nuplex Industries Ltd.
12 Industry Road, Penrose, Auckland
Phone: (09) 579 2029 Fax: (09) 525 1618
Emergency Advice (NZ): Phone: 0800 154 666.

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.

Risk Phrase(s)

R34 Causes burns.

R43 May cause sensitization by skin contact.

R21/22 Harmful in contact with skin and if swallowed.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase (s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell seek medical advice immediately

S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

S24/25 Avoid contact with skin and eyes.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Isophorone diamine	2855-13-2	30-60 %
	Triethylenetetramine	112-24-3	10-30 %
	Ingredients determined not to be hazardous.	Not required	0-30 %
	1,5-pentanediamine, 2-methyl	15520-10-2	10-30 %
	Phenol,4-Nonyl-,Branched	84852-15-3	0-4.99 %

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and give oxygen if breathing is difficult. Apply artificial respiration if not breathing. Seek medical attention.
Ingestion	Never give anything by mouth if victim is semi-conscious or unconscious. Do NOT induce vomiting. Immediately wash out mouth with water. SEEK IMMEDIATE MEDICAL ATTENTION.
Skin	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. Seek IMMEDIATE medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek IMMEDIATE medical attention.
First Aid Facilities	An eye wash fountain, safety shower and a general washing facility should be available adjacent to the work area.
Advice to Doctor	Treat symptomatically.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 0800 764 766) or a doctor (at once).

5. FIRE FIGHTING MEASURES

**Suitable
Extinguishing
Media**

Use carbon dioxide, dry chemical, foam or water mist.

**Hazards from
Combustion
Products**

Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide, carbon dioxide and oxides of nitrogen.

**Specific
Hazards**

Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well-ventilated area away from naked flames, sparks and other sources of ignition.

Hazchem Code 2X

**Precautions in
connection
with Fire**

Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

**Emergency
Procedures**

Remove all sources of ignition. Increase ventilation. Wear appropriate breathing apparatus and full protective clothing to minimise skin and eye exposure. Place inert, non-combustible absorbent such as vermiculite, sand or dirt onto material. Collect the material and place into a suitable labelled container for subsequent disposal. If this material enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

**Precautions
for Safe
Handling**

Use in a well ventilated area. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. Wear appropriate protection. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

**Conditions for
Safe Storage**

Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National
Exposure
Standards**

No exposure standards have been established for this material by the Australian National Occupational Health And Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand

Biological Limit Values	No Biological limit available.
Engineering Controls	Provide sufficient ventilation. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable protective clothing should be worn e.g. cotton overalls buttoned at neck and wrist. When large quantities are handled the use of chemical resistant apron and safety boots is recommended. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear amber liquid with a slightly ammoniacal odour.
Melting Point	Not available.
Boiling Point	Not available.
Solubility in Water	Insoluble
Specific Gravity	0.97 to 1.00
pH Value	Not available
Vapour Pressure	Not available.
Vapour Density (Air=1)	Not available.

Volatile Component	< 1%
Flash Point	112°C (Pensky-Martens Closed Cup).
Flammability	Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purposes of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well ventilated area away from naked flames, sparks and other sources of ignition.
Auto-Ignition Temperature	Not available.
Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	The amine type component of this product will decompose at temperatures above 260°C and generate ammonia.
Hazardous Reactions	Reacts with incompatibles.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No toxicity data is available for this product.
Inhalation	Inhalation of mists or vapours will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema.
Ingestion	Harmful if swallowed. Ingestion may cause nausea, vomiting, diarrhea, abdominal pain and chemical burns to the mouth, throat and stomach.
Skin	Harmful in contact with skin. Skin contact will cause redness, itchiness, irritation and chemical burns with resultant tissue destruction.
Eye	Eye contact will cause stinging, blurring, tearing and possible permanent corneal damage.

Chronic Effects Prolonged or repeated skin contact may lead to allergic contact dermatitis and sensitisation in some individuals. Prolonged inhalation may cause central nervous system depression with symptoms including dizziness, drowsiness, nausea and headaches.

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence / Degradability No data is available for this material.

Mobility No data is available for this material.

Environment Protection Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of according to relevant government regulations.

14. TRANSPORT INFORMATION

Transport Information

Australia:
This material is classified as a Class 8 (Corrosive) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following:

- Class 1, Explosive
- Class 4.3, Dangerous When Wet Substance
- Class 5.1, Oxidising Agent
- Class 5.2, Organic Peroxide
- Class 6, Toxic and Infectious Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids
- Class 7, Radioactive Substance

and are incompatible with food and food packaging in any quantity.

New Zealand:
This material is classified as a Class 8 - Corrosive Substance according to NZS 5433:1999 Transport of Dangerous Goods on Land.
Must not be loaded in the same freight container or on the same vehicle with:

- (Class 1) Explosives
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides
- (Class 7) Radioactive materials unless specifically exempted

And are incompatible with food and food packaging in any quantity.
Note 1; Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).
Note 2; Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.
Must not be loaded with in the same freight container; and on the same

vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- (Class 4.3) Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- (Class 4.3) Dangerous when wet substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides

And are incompatible with food and food packaging in any quantity.

U.N. Number 1760

Proper Shipping Name CORROSIVE LIQUID, N.O.S. - (CONTAINS ISOPHORONE DIAMINE AND TRIETHYLENETETRAMINE)

DG Class 8

Hazchem Code 2X

Packaging Method 3.8.8

Packing Group III

EPG Number 8A1

IERG Number 37

15. REGULATORY INFORMATION

Regulatory Information Australia:
Classified as hazardous according to criteria of Australian National Occupational Health & Safety Commission (NOHSC).
Poison Schedule (Australia): Scheduled 5
New Zealand:
Not scheduled according to the Toxic Substances Regulations 1983.

Poisons Schedule S5

S5 ; New Zealand:Not Scheduled

Hazard Category Harmful,Corrosive

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS Created: April 2006

Contact Person/Point For further information ask for: For specialist advice in emergencies: Australia 1800 022 037; New Zealand 0800 154 666.

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health

and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

End of MSDS

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Material Safety Data Sheet

MEK EPOXY SOLVENT

Infosafe No. ACOLO **Issue Date** September 2003 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name MEK EPOXY SOLVENT

Product Code F90715

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Solvent for virtually all synthetic and natural resins used in the manufacture of paints. Lubricating oil dewaxing

Other Names Not Available

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

HAZARDOUS SUBSTANCE.
DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s)

R11 Highly flammable.
R66 Repeated exposure may cause skin dryness and cracking.
R67 Vapours may cause drowsiness and dizziness
R36/37 Irritating to eyes and respiratory system.

Safety Phrase (s) S2 Keep out of reach of children.
S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition - No smoking.
S25 Avoid contact with eyes.
S33 Take precautionary measures against static discharges.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	METHYL ETHYL KETONE	78-93-3	100 %

4. FIRST AID MEASURES

Inhalation Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.

Ingestion If swallowed, do NOT induce vomiting, give a glass of water and seek medical advice.

Skin Soak contaminated clothing with water and then remove. Wash skin with soap and water.

Eye Flood eyes with plenty of water for 20 minutes. If irritation occurs seek medical advice.

First Aid Facilities Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use foam, CO2 or powder to extinguish fire.

Specific Hazards Flammable liquid. Combustion products include oxides of carbon. Keep storage tanks, pipelines, fire exposed surfaces etc cool with water spray. Shut off any leak if safe to do so and remove sources of re-ignition. Vapour/air mixtures may ignite explosively and flashback along the vapour trail may occur.

Hazchem Code 2[Y]E

6. ACCIDENTAL RELEASE MEASURES

Other Information	Wear appropriate personal protective equipment. Extinguish or remove all sources of ignition and stop leak if safe to do so. Contain the spill with sand or earth and take up with a vacuum truck or absorb with absorbent material, sand or earth. Keep away from heat, naked flames and sparks. Place used absorbent in suitable sealed containers for disposal.

7. HANDLING AND STORAGE

Conditions for Safe Storage	Store in a well ventilated place away from ignition sources, oxidizing agents foodstuffs and clothing. Keep containers closed when not in use. Take precautions against static electricity discharges.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote

	METHYL ETHYL KETONE	890	300	445	150	

Engineering Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flame proof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS 2430 - Explosive gas atmospheres for further information concerning ventilation requirements.

Personal Protective Equipment	Avoid contact with the skin and eyes, and avoid breathing vapours or mists. When exposure is likely, personal protective equipment in a combination appropriate to the degree and nature of exposure, should be selected from the following list:- (1) Eye protection (2) PVA gloves (3) PVA apron and sleeves, or full PVA covering (4) Rubber boots Where the concentration of vapour or mist is expected to approach the exposure limit, the following additional equipment is recommended:- (1) Short elevated exposures, eg spillage - goggles and correct respiratory protection should be worn. NB if the vapour/mist concentrations exceed the exposure limit by more than 10 times, air supplied apparatus should be used. (2) For prolonged elevated exposures - Full face air supplied or self contained breathing apparatus should be worn.

CONTAMINATION

If contamination occurs, change clothing. Clothing wet with product should be soaked with water before removal to prevent the possibility of ignition by static electricity discharges. Launder contaminated clothing before reuse, and discard internally contaminated gloves and footwear. Observe good personal hygiene.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Water white liquid with strong ketonic odour

Melting Point -86.00 °C

Boiling Point IBP: 79°C FBP: 81°C

Solubility in Water Soluble

Specific Gravity 0.80 @ 20 °C

Vapour Pressure 8.90 kPa @ 20 °C

Vapour Density (Air=1) 2.40 @ 20 °C

Evaporation Rate 3.70

Volatile Component 100%

Flash Point -4.00 °C

Flammability Product is Highly Flammable.
Isolate from sources of heat, naked flames, sparks and oxidising materials. Take precautions against discharges of static electricity Earth and bond all process equipment including tanks and drums. Ensure ventilation is adequate to prevent build up of explosive atmosphere.
Refer to AS 1940 - Storage and handling of flammable and combustible liquids and AS 2865 - Safe working in a confined space, for more specific information on these subjects.

Auto-Ignition Temperature 515°C

Flammable Limits - Lower 1.80 %v/v

Flammable Limits - Upper 11.50 %v/v

10. STABILITY AND REACTIVITY

Hazardous Reactions Stable

11. TOXICOLOGICAL INFORMATION

Toxicology Information For the solvent, Methyl Ethyl Ketone:
Oral LD50 (rat): 2737 mg/kg

Inhalation (Rat): 23500 mg/m3/8H
Dermal LD50 Range (rabbit): 5000-13000 mg/kg
SKIN (rabbit): Moderate/mild irritant
EYES (rabbit): Moderate irritant. Eye irritation reported in humans exposed to vapour at 350 ppm.
Toxicological data suggest that methyl ethyl ketone interacts with and enhances the neurotoxicity of n-hexane, 2,5-hexanedione and methyl-n-butyl ketone in the body but direct evidence implicating methyl ethyl ketone is lacking. Methyl ethyl ketone has been shown to be weakly hepatotoxic in experimental animals at very high doses. Negative in IN VITRO mutagenicity assays.

Inhalation	Inhalation causes irritation to the respiratory system. Prolonged exposure to vapours may cause somnolence and narcosis.
Ingestion	May cause mild gastric irritation and CNS depression.
Skin	Mildly irritating to skin.
Eye	Irritating to the eyes.
Chronic Effects	Prolonged and repeated skin contact may cause dermatitis due to defatting effect.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Follow state or local authority regulations and guidelines for disposal of the waste. Clean area with detergent and water - do not allow product to enter drains, sewers or water courses- inform the local authorities if this occurs.

14. TRANSPORT INFORMATION

Transport Information	Classified as a Dangerous Good (Class 3) for transport purposes.

U.N. Number 1193

Proper Shipping Name ETHYL METHYL KETONE (METHYL ETHYL KETONE)

DG Class 3

Hazchem Code 2[Y]E

Packaging Method 3.8.3RT1

Packing Group II

EPG Number 3A1

15. REGULATORY INFORMATION

**Poisons
Schedule** S5

**Hazard
Category** Irritant, Highly Flammable

16. OTHER INFORMATION

**Contact
Person/Point** Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

**Literature
References** For detailed advice on Personal Protective equipment, refer to the following Australian Standards :-
HB 9 (Handbook 9) Manual of industrial personal protection.
AS 1337 Eye protectors for industrial applications.
AS 1715 Selection, use and maintenance of respiratory protective devices.
AS 1716 Respiratory protective devices.

End of MSDS

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Material Safety Data Sheet

METHYL ETHYL KETONE (MEK)

Infosafe No. ACOLO **Issue Date** September 2003 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name METHYL ETHYL KETONE (MEK)

Product Code 10605

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Solvent for virtually all synthetic and natural resins used in the manufacture of paints. Lubricating oil dewaxing

Other Names Not Available

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

HAZARDOUS SUBSTANCE.
DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s)

R11 Highly flammable.
R66 Repeated exposure may cause skin dryness and cracking.
R67 Vapours may cause drowsiness and dizziness
R36/37 Irritating to eyes and respiratory system.

Safety Phrase (s) S2 Keep out of reach of children.
S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition - No smoking.
S25 Avoid contact with eyes.
S33 Take precautionary measures against static discharges.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	METHYL ETHYL KETONE	78-93-3	100 %

4. FIRST AID MEASURES

Inhalation Remove affected person from contaminated area and seek medical advice. If not breathing apply artificial respiration and seek urgent medical advice.

Ingestion If swallowed, do NOT induce vomiting, give a glass of water and seek medical advice.

Skin Soak contaminated clothing with water and then remove. Wash skin with soap and water.

Eye Flood eyes with plenty of water for 20 minutes. If irritation occurs seek medical advice.

First Aid Facilities Eye wash fountains and safety showers should be available for emergency use.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use foam, CO2 or powder to extinguish fire.

Specific Hazards Flammable liquid. Combustion products include oxides of carbon. Keep storage tanks, pipelines, fire exposed surfaces etc cool with water spray. Shut off any leak if safe to do so and remove sources of re-ignition. Vapour/air mixtures may ignite explosively and flashback along the vapour trail may occur.

Hazchem Code 2[Y]E

6. ACCIDENTAL RELEASE MEASURES

Other Information	Wear appropriate personal protective equipment. Extinguish or remove all sources of ignition and stop leak if safe to do so. Contain the spill with sand or earth and take up with a vacuum truck or absorb with absorbent material, sand or earth. Keep away from heat, naked flames and sparks. Place used absorbent in suitable sealed containers for disposal.

7. HANDLING AND STORAGE

Conditions for Safe Storage	Store in a well ventilated place away from ignition sources, oxidizing agents foodstuffs and clothing. Keep containers closed when not in use. Take precautions against static electricity discharges.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL (mgm3)	STEL (ppm)	TWA (mgm3)	TWA (ppm)	FootNote

	METHYL ETHYL KETONE	890	300	445	150	

Engineering Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flame proof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS 2430 - Explosive gas atmospheres for further information concerning ventilation requirements.

Personal Protective Equipment	Avoid contact with the skin and eyes, and avoid breathing vapours or mists. When exposure is likely, personal protective equipment in a combination appropriate to the degree and nature of exposure, should be selected from the following list:- (1) Eye protection (2) PVA gloves (3) PVA apron and sleeves, or full PVA covering (4) Rubber boots Where the concentration of vapour or mist is expected to approach the exposure limit, the following additional equipment is recommended:- (1) Short elevated exposures, eg spillage - goggles and correct respiratory protection should be worn. NB if the vapour/mist concentrations exceed the exposure limit by more than 10 times, air supplied apparatus should be used. (2) For prolonged elevated exposures - Full face air supplied or self contained breathing apparatus should be worn.

CONTAMINATION

If contamination occurs, change clothing. Clothing wet with product should be soaked with water before removal to prevent the possibility of ignition by static electricity discharges. Launder contaminated clothing before reuse, and discard internally contaminated gloves and footwear. Observe good personal hygiene.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Water white liquid with strong ketonic odour

Melting Point -86.00 °C

Boiling Point IBP: 79°C FBP: 81°C

Solubility in Water Soluble

Specific Gravity 0.80 @ 20 °C

Vapour Pressure 8.90 kPa @ 20 °C

Vapour Density (Air=1) 2.40 @ 20 °C

Evaporation Rate 3.70

Volatile Component 100%

Flash Point -4.00 °C

Flammability Product is Highly Flammable.
Isolate from sources of heat, naked flames, sparks and oxidising materials. Take precautions against discharges of static electricity Earth and bond all process equipment including tanks and drums. Ensure ventilation is adequate to prevent build up of explosive atmosphere.
Refer to AS 1940 - Storage and handling of flammable and combustible liquids and AS 2865 - Safe working in a confined space, for more specific information on these subjects.

Auto-Ignition Temperature 515°C

Flammable Limits - Lower 1.80 %v/v

Flammable Limits - Upper 11.50 %v/v

10. STABILITY AND REACTIVITY

Hazardous Reactions Stable

11. TOXICOLOGICAL INFORMATION

Toxicology Information For the solvent, Methyl Ethyl Ketone:
Oral LD50 (rat): 2737 mg/kg

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Toxicological data suggest that methyl ethyl ketone interacts with and enhances the neurotoxicity of n-hexane, 2,5-hexanedione and methyl-n-butyl ketone in the body but direct evidence implicating methyl ethyl ketone is lacking. Methyl ethyl ketone has been shown to be weakly hepatotoxic in experimental animals at very high doses. Negative in IN VITRO mutagenicity assays.

Inhalation	Inhalation causes irritation to the respiratory system. Prolonged exposure to vapours may cause somnolence and narcosis.
Ingestion	May cause mild gastric irritation and CNS depression.
Skin	Mildly irritating to skin.
Eye	Irritating to the eyes.
Chronic Effects	Prolonged and repeated skin contact may cause dermatitis due to defatting effect.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Follow state or local authority regulations and guidelines for disposal of the waste. Clean area with detergent and water - do not allow product to enter drains, sewers or water courses- inform the local authorities if this occurs.

14. TRANSPORT INFORMATION

Transport Information	Classified as a Dangerous Good (Class 3) for transport purposes.

U.N. Number 1193

Proper Shipping Name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)

DG Class 3

Hazchem Code 2[Y]E

Packaging Method 3.8.3RT1

Packing Group II

EPG Number 3A1

15. REGULATORY INFORMATION

**Poisons
Schedule** S5

**Hazard
Category** Irritant, Highly Flammable

16. OTHER INFORMATION

**Contact
Person/Point** Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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AS 1337 Eye protectors for industrial applications.
AS 1715 Selection, use and maintenance of respiratory protective devices.
AS 1716 Respiratory protective devices.

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Material Safety Data Sheet

ORTHOPHOSPHORIC ACID 81%

Infosafe No. AJ1XR **Issue Date** August 2005 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ORTHOPHOSPHORIC ACID 81%

Product Code A2212

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Manufacture of phosphate fertilizers and salts, polyphosphates, detergents, pharmaceutical chemicals, activated carbon, animal feed, ceramics, food additive, food processing, rust inhibitors, wax and rubber latex; also used in electropolishing, engraving and photoengraving, printing, metal cleaning, sugar refining and water treatment.

Other Names Not Available

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Classified as Hazardous, according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).
Classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Classified as Hazardous according to the NZ Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as Dangerous Goods for transport, according to the NZS 5433:1999 Transport of Dangerous Goods on Land.

Risk Phrase(s)

R34 Causes burns.

Safety Phrase (s) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S23(3) Do not breathe spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Phosphoric acid	7664-38-2	80-95 %
	Water	7732-18-5	5-20 %

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the affected person to fresh air. Ensure airways are clear. Keep at rest. Seek medical attention.
Ingestion	Never give anything by mouth if victim is semi-conscious or unconscious. Immediately wash out mouth with copious amounts of water. Seek immediate medical attention.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair thoroughly with running water. Seek medical attention.
Eye	If contact with the eyes occurs, wash with copious amounts of water for approximately 15 minutes holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.
First Aid Facilities	Eye wash station, safety shower and normal washroom facilities.
Advice to Doctor	Treat symptomatically.
Other Information	For advice in an emergency, contact the Poisons Information Centre (Phone eg Australia 131 126; New Zealand Phone 0800 POISON (0800-764-766)).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Extinguish fire with foam, dry chemical powder, carbon dioxide, water spray or water fog. Do not use water jets.

**Hazards from
Combustion
Products**

Under fire conditions this product will decompose and emit toxic and/or irritating smoke, phosphoric acid fumes and phosphorus oxides.

**Specific
Hazards**

This product is not combustible, but will decompose under fire conditions releasing toxic and irritating oxides of phosphorus. Phosphoric acid is not combustible, but contact with common metals produces hydrogen which may form flammable mixtures with air.

Hazchem Code 2R

Decomposition

Temp.

Not available

**Precautions in
connection
with Fire**

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full protective clothing to prevent exposure to vapours, fumes or products of combustion. Water spray may be used to cool down heat-exposed containers and help prevent rupture. Water spray may also be used to control acid vapours.

6. ACCIDENTAL RELEASE MEASURES

**Emergency
Procedures**

Wear appropriate personal protective equipment and clothing to prevent exposure. Restrict access to area until completion of clean-up. Ensure cleanup is conducted by trained personnel only. Stop leak if safe to do so. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.
Note: Neutralize with sodium bicarbonate (NaHCO_3) or a mixture of soda ash/slaked lime. Shovel residue into containers for disposal. Lime is the preferred neutralizing agent because of the low solubility of the calcium phosphate formed.

7. HANDLING AND STORAGE

**Precautions
for Safe
Handling**

Use in a well ventilated area. Do not mix with bases and other incompatible materials. Protect from freezing. Avoid generating mists. Use smallest possible amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Corrosion of equipment and surfaces should be considered in areas where hot or misted phosphoric acid is present. Soda ash or lime should be kept nearby for emergency use. Label containers. Keep containers closed when not in use. Empty containers may contain residues which are hazardous. When preparing or diluting acid solutions, the acid should be added slowly to water with plenty of careful stirring. This will prevent overheating, splashing and splattering of the acid.

**Conditions for
Safe Storage**

Store in a cool, dry, well-ventilated area away from heat, oxidising agents and other incompatible materials, and foodstuffs. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Phosphoric acid solutions should be stored in glass containers or other acid-resistant materials. The storage area should be clean and well ventilated. It should have acid-resistant floor and approved drainage. To prevent crystallization of concentrated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

The National Occupational Health & Safety Commission (NOHSC), Australia and the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour have established the following exposure standards for phosphoric acid.

National Occupational Health And Safety Commission (NOHSC), Australia exposure standards:

Substance	TWA		STEL		NOTICE
	ppm	mg/m ³	ppm	mg/m ³	
Phosphoric acid	-	1	-	3	-

New Zealand Occupational Safety and Health Service (OSH) Workplace exposure standards:

Substance	TWA		STEL		NOTICE
	ppm	mg/m ³	ppm	mg/m ³	
Phosphoric acid	-	1	-	-	-

Other Exposure Information

As published by the National Occupational Health and Safety Commission (NOHSC) and the New Zealand Occupational Safety and Health Service (OSH).
TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear laminated film, nitrile or other suitable gloves conforming to AS/NZS 2161: Occupational protective gloves. Final choice of appropriate gloves may vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.

Body Protection

Wear appropriate clothing, including chemical resistant apron where clothing is likely to be contaminated.

Hygiene Measures

Maintain high standards of personal hygiene i.e. washes hands prior to eating, drinking, smoking or using toilet facilities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless syrupy liquid; odourless.
Decomposition Temperature	Not available
Melting Point	21°C (85% solution)
Boiling Point	158°C (85% solution)(water boils off first).
Solubility in Water	Soluble
Specific Gravity	1.685 (85% solution)
pH Value	1.5 (1% H ₃ PO ₄)
Vapour Pressure	Not available
Evaporation Rate	Slower than butyl acetate.
Flash Point	Not applicable
Flammability	Non combustible material. However, contact of phosphoric acid with common metals produces hydrogen which may form flammable mixtures with air.
Auto-Ignition Temperature	Not available
Flammable Limits - Lower	Not applicable
Flammable Limits - Upper	Not applicable
Other Information	Acidity: Strong acid. K ₁ = 7.1 x 10 ⁽⁻³⁾ ; K ₂ = 8.0 x 10 ⁽⁻⁸⁾ ; K ₃ = 4.8 x 10 ⁽⁻¹³⁾

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal storage conditions.
Incompatible Materials	Strong bases and, strong oxidising and reducing agents; sulphides, phosphides, cyanides, acetylides, fluorides and carbides.
Hazardous Decomposition Products	Oxides of phosphorus.
Hazardous Reactions	Reacts with strong alkalis, strong oxidising and reducing agents, most metals, sulphides, phosphides, cyanides, acetylides, fluorides and carbides, releasing flammable or toxic gases.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	For Phosphoric acid: LD50 (oral, rat): 1,530 mg/kg LD50 (dermal, rabbit): 2,740 mg/kg Skin Irritation - Standard Draize Test: Rabbit, 595 mg/24H: Severe Eye Irritation - Standard Draize Test: Rabbit, 119 mg: Severe
Inhalation	Inhalation of mists or vapours will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary edema, pneumonitis and emphysema.
Ingestion	Ingestion of this product may cause burns to the mouth and throat, pain in the stomach, difficulty in breathing, nausea, vomiting, diarrhea, and convulsions. It may cause gastric or esophageal perforation.
Skin	Corrosive to skin - skin contact will cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction.
Eye	Corrosive to eyes. Mists may cause severe eye irritation. When splashed in the eyes, concentrated solutions can cause severe burns, pain and permanent eye damage.
Chronic Effects	Prolonged exposures can cause necrosis of nasal passages and edema of lungs.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not available
Persistence / Degradability	Not available
Mobility	Not available
Environment Protection	Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	The spilled or waste material must be disposed of in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information	Australia: This material is a Class 8 Corrosive Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 8 - Corrosive Substances are incompatible in a placard load with any of the following: - Class 1, Explosives

- Class 4.3, Dangerous When Wet Substances
- Class 5.1, Oxidising Agents & Class 5.2 - Organic Peroxides
- Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids),
- Class 7, Radioactive Substances

and are incompatible with food and food packaging in any quantity.

New Zealand:

This material is classified as a Class 8 - Corrosive Substance according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Class 8 substances must not be loaded in the same freight container or on the same vehicle with:

- (Class 1) Explosives
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides
- (Class 7) Radioactive materials unless specifically exempted

and are incompatible with food and food packaging in any quantity.

Note 1; Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).

Note 2; Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

Class 8 substances must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- (Class 4.3) Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- (Class 4.3) Dangerous when wet substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides

and are incompatible with food and food packaging in any quantity.

U.N. Number 1805

Proper Shipping Name PHOSPHORIC ACID

DG Class 8

Hazchem Code 2R

Packaging Method 3.8.8RT8

Packing Group III

EPG Number 8A1

IERG Number 37

15. REGULATORY INFORMATION

Regulatory Information Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Classified as Schedule 6 (S6) Poison, according to the Standard for the Uniform Scheduling of Drugs and Poisons, 2004. (No. 19).
New Zealand:

Classified as Hazardous according to the NZ Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as Schedule 3 (S3) Standard Poison, according to the New Zealand Toxic Substances Regulations 1983.

**Poisons
Schedule**

S6

S6 ; New Zealand:S3

**Hazard
Category**

Corrosive

**AICS
(Australia)**

All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

**Date of
preparation or
last revision of
MSDS**

MSDS Reviewed: August 2005
Supersedes: October 2000

**Contact
Person/Point**

Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

PURACAL XPRO

Infosafe No. NLYGK **Issue Date** October 2006 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name PURACAL XPRO

Product Code APURXPRO

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Food additive.

Other Names None Listed

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Not classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Risk Phrase(s)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion

	Ingredients determined not to be hazardous		

		100 %	

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. If symptoms develop seek medical attention.

Ingestion	Do NOT induce vomiting. Wash out mouth with water and give plenty of water to drink. If symptoms develop seek medical attention.

Skin	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.

Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.

First Aid Facilities	Eye wash and normal washroom facilities.

Advice to Doctor	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use appropriate fire extinguisher for surrounding environment.

Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes including oxides of carbon.

Decomposition Temp.	~170°C

Precautions in connection with Fire	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Increase ventilation. Wear sufficient respiratory protection and full protective clothing to minimise skin and eye exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Seal all wastes in vapour tight labelled plastic containers for eventual disposal. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Avoid generating dust. Use smallest possible amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Ensure a high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking or using the toilet.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled containers. Keep containers tightly closed. Store away from water and incompatible materials. Have appropriate fire extinguishers available in and near the storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material. However the exposure standard for dust not otherwise specified is 10 mg/m ³ (for inspirable dust) and 3 mg/m ³ (for respirable dust). The limit applies to both Australia and New Zealand.
Biological Limit Values	No biological limit allocated.
Engineering Controls	Use with good general ventilation. If dusts are produced local exhaust ventilation should be used.
Respiratory Protection	Where ventilation is inadequate the use of an Air Purifying Respirator with a Organic Vapour filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended.
Eye Protection	The use of chemical goggles or safety glasses with side shield protection is recommended. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable work wear should be worn to protect personal clothing. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White powder.
Odour	Odourless.
Decomposition Temperature	~170°C
Melting Point	Not available.
Boiling Point	Not available.
Solubility in Water	Cold water: 20 g/100ml (20°C)
Specific Gravity	Not available.
pH Value	~7.0 (10 g/l aqueous solution)
Vapour Pressure	Not available.
Vapour Density (Air=1)	Not available.
Density	Bulk: 400-650 kg/m ³
Flash Point	Not applicable.
Auto-Ignition Temperature	>170°C
Flammable Limits - Lower	Not available.
Flammable Limits - Upper	Not available.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50/oral/rat: >5000 mg/kg
Inhalation	May cause mechanical irritation to the nose, throat and upper respiratory tract.
Ingestion	Ingestion of large amounts may cause nausea, diarrhoea, abdominal pain and vomiting.
Skin	Skin contact may cause mechanical irritation resulting in redness and itching.
Eye	Eye contact may cause mechanical irritation. May result in mild abrasion.
Chronic Effects	Not expected to cause chronic health effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity	No data is available for this material.
Persistence / Degradability	Readily biodegradable.
Mobility	No data is available for this material.
Environment Protection	Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information	Australia: Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. New Zealand: Not classified as Dangerous Goods for transport according to the NZS 5433:1999 Transport of Dangerous Goods on Land.
Storage and Transport	Not classified as dangerous goods.

15. REGULATORY INFORMATION

Regulatory Information	Australia: Not classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC). Poison Schedule: Not Scheduled

**Poisons
Schedule** Not Scheduled

**National and
or
International
Regulatory
Information** New Zealand:
Not classified as Hazardous according to the New Zealand Hazardous
Substances (Minimum Degrees of Hazard) Regulations 2001.

16. OTHER INFORMATION

**Date of
preparation or
last revision of
MSDS** MSDS created: October 2006.

**Contact
Person/Point** Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

R180 PART A EPOXY RESIN

Infosafe No. LPSFN **Issue Date** April 2006 **Status** ISSUED by FGI

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name R180 PART A EPOXY RESIN

Product Code F22181

Company Name FGI, division of Nuplex Industries (Aust) Pty Ltd. (ABN 25 000 045 572)

Address 14 Clearview Place BROOKVALE
NSW 2100

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9939 1399
Fax: (02) 9938 5826

Recommended Use In conjunction with epoxy hardeners for civil engineering.

Other Names None Listed

Other Information NEW ZEALAND: Nuplex Industries Ltd.
12 Industry Road, Penrose, Auckland
Phone: (09) 579 2029 Fax: (09) 525 1618
Emergency Advice (NZ): Phone: 0800 154 666.

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Not classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.

Risk Phrase(s)

R43 May cause sensitization by skin contact.
R36/38 Irritating to eyes and skin.

Safety Phrase (s) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Epoxy resin	25085-99-8	60-100 %
	Benzyl Alcohol	100-51-6	5-15 %

4. FIRST AID MEASURES

Inhalation	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and give oxygen if breathing is difficult. Apply artificial respiration if not breathing. If symptoms develop and persist, seek medical attention.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water. Seek medical attention.
Skin	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occur, wash with running water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. In all cases of eye contamination it is a sensible precaution to seek medical advice.
First Aid Facilities	Eye wash and normal washroom facilities.
Advice to Doctor	Treat symptomatically.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 0800 764 766) or a doctor (at once).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use carbon dioxide, dry chemical, foam or water mist.

Hazards from Combustion Products Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Specific Hazards Combustible liquid.

Precautions in connection with Fire

Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container for subsequent disposal. Dispose of waste according to the Environmental Protection Authority (EPA), federal, state and local regulations. If the spillage enters the waterways contact the EPA, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. Wear appropriate protection. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage

Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour.

Biological Limit Values

No Biological limit available.

Engineering Controls

Provide sufficient ventilation. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS

1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear liquid

Odour Not available

Melting Point Not available

Boiling Point Not available.

Solubility in Water Insoluble

Specific Gravity 1.15

pH Value Not applicable

Vapour Pressure Not available.

Vapour Density (Air=1) Not available.

Volatile Component <1%

Flash Point 154°C (PMCC)

Flammability Classified as a Class C2 (COMBUSTIBLE LIQUID) for the purposes of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well ventilated area away from naked flames, sparks and other sources of ignition.

Auto-Ignition Temperature Not available

Flammable
Limits - Lower Not available

Flammable
Limits - Upper Not available

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.

Conditions to Avoid Heat, direct sunlight, open flames or other sources of ignition.

Incompatible Materials Strong acids and strong oxidising agents.

Hazardous Decomposition Products Decomposition products include phenolics, carbon monoxide and water.

Hazardous Reactions Reacts with incompatibles.

Hazardous Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No toxicology data available for this product.

Inhalation Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Ingestion Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Skin Irritating to skin resulting in redness and itching.

Eye Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Chronic Effects May cause sensitization by skin contact. Prolonged exposure to high concentrations of vapour may affect the central nervous system. Prolonged eye contact may cause corneal injury.

12. ECOLOGICAL INFORMATION

Ecotoxicity No data is available for this material.

Persistence / Degradability No data is available for this material.

Mobility No data is available for this material.

**Environment
Protection**

Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal

Considerations Dispose of according to relevant government regulations.

14. TRANSPORT INFORMATION

**Transport
Information**

Australia:
Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Not classified as Dangerous Goods for transport according to the NZS 5433:1999 Transport of Dangerous Goods on Land.

**Storage and
Transport**

Not classified as dangerous goods.

15. REGULATORY INFORMATION

**Regulatory
Information**

Australia:
Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Poison Schedule: S5
New Zealand:
Not scheduled according to the Toxic Substances Regulations 1983.

**Poisons
Schedule**

S5

S5 ; New Zealand:Not Scheduled

**Hazard
Category**

Irritant

**AICS
(Australia)**

All components in this product are listed on AICS (Australian Inventory of Chemical Substances).

16. OTHER INFORMATION

**Date of
preparation or
last revision of
MSDS**

MSDS Reviewed: April 2006
MSDS Superseded: March 2006

**Contact
Person/Point**

For further information ask for: For specialist advice in emergencies: Australia 1800 022 037; New Zealand 0800 154 666.

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider

the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Material Safety Data Sheet

WHITE SPIRIT

Infosafe No. ACOKZ **Issue Date** March 2007 **Status** ISSUED by APSSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name WHITE SPIRIT

Product Code A9349

Company Name APS, A Division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address 8 Abbott Road SEVEN HILLS
NSW 2147

Emergency Tel. 1800 022 037 (24H)

Telephone/Fax Number Tel: (02) 9839 4000
Fax: (02) 9674 6225

Recommended Use Industrial solvent.

Other Names Not Available

Other Information New Zealand: Asia Pacific Specialty Chemicals (NZ) Limited
119 Carbine Road
Mt Wellington, Auckland 6
Emergency Tel: 0800 154 666 (24H)
Telephone: (09) 276 4019
Fax: (09) 276 7231

2. HAZARDS IDENTIFICATION

Hazard Classification

Australia:
Classified as Hazardous, according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).
Classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
New Zealand:
Classified as Hazardous according to the Hazardous Substances (Classification) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport, according to the NZS 5433:1999
Transport of Dangerous Goods on Land.
HSNO Classification:
3.1C - A substance that is flammable liquid: Medium hazard
6.1E - Substance that is mild acutely toxic
6.3B - Substance that is mildly irritating to the skin
9.1B - A substance that is ecotoxic in the aquatic environment

Risk Phrase(s)

R10 Flammable.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking.
R67 Vapours may cause drowsiness and dizziness
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase (s) S2 Keep out of reach of children.
S23 Do not breathe gas/fumes/vapour/spray
S24 Avoid contact with skin.
S29 Do not empty into drains.
S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Paraffins And Napthenes	Mixture	60-100 %
	1,3,5-Trimethylbenzene	108-67-8	0-10 %
	Xylene (mixed isomers)	1330-20-7	0-10 %
	1,2,4-Trimethylbenzene	95-63-6	0-10 %

4. FIRST AID MEASURES

Inhalation	Remove affected person from contaminated area. If not breathing apply artificial respiration and seek medical attention.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water. Where vomiting occurs naturally have victim place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.
Skin	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities	Eye wash and normal washroom facilities.
Advice to	Treat symptomatically. Causes CNS depression. Dermatitis from prolonged

Doctor exposure. Potential chemical pneumonitis. Consider gastric lavage with protected airway, administration of activated charcoal.

Other Information For advice, contact the Poisons Information Centre (Australia 131 126).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use foam, CO2 or powder to extinguish fire.

Hazards from Combustion Products Combustion products include oxides of carbon.

Specific Hazards This product is flammable. Vapours are heavier than air and will 'travel' to low-level areas e.g. sumps, drains, etc. and flashback. Precautions should be taken to eliminate the build up of explosive mixtures.

Hazchem Code 3[Y]

Precautions in connection with Fire Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode. Use water spray to cool fire exposed containers. Do not discharge extinguishing water into the aquatic environment.

Unsuitable Extinguishing Media Water jet.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. Attempt to disperse the vapour or to direct its flow to a safe location, for example by using fog sprays. If possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Do not allow product to enter drains, sewers or waterways. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling Open containers cautiously as contents may be under pressure. Use only in a well ventilated area. DO NOT store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Avoid electrically continuity by bonding and grounding (earthing) all equipment. Avoid splash filling. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do NOT pressurise, cut, heat or weld

containers as they may contain hazardous residues. Do not smoke. When dealing with this product protection should be used in order to lessen the possibility of skin and eye contact. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. This product should be stored in a diked (bundled) area. Inspect regularly for deficiencies such as damage or leaks. Always keep in containers made of the same material as the supply container. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Do not stack more than 3 pallets high. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.

Storage Temperatures

Ambient.

Recommended Materials

For containers or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.

Unsuitable Materials

Avoid contact with rubber, butyl or nitrile rubbers. Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards:

Substance	STEL		TWA	
	ppm	mg/m ³	ppm	mg/m ³
White spirit	-	-	-	790

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	STEL		TWA	
	ppm	mg/m ³	ppm	mg/m ³
White spirit	-	-	100	525

Biological Limit Values

No biological limit allocated.

Other Exposure Information

As published by the National Occupational Health and Safety Commission (NOHSC):

As published by the New Zealand Occupational Safety and Health Service (OSH):

TWA - the Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

According to current knowledge these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas,

and natural ventilation is inadequate, a flame proof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS 2430 - Explosive gas atmospheres for further information concerning ventilation requirements.

Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material eg. chemical resistant gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colourless liquid.
Odour	Paraffinic.
Melting Point	Not applicable.
Boiling Point	162 - 192°C
Solubility in Water	Insoluble
Solubility in Organic Solvents	Aromatics, miscible. Aliphatics miscible.
Specific Gravity	0.78 @ 15 °C
pH Value	Not available
Vapour Pressure	0.43 kPa @ 15 °C
Vapour Density (Air=1)	4.57 @ 15 °C

Evaporation Rate	0.16
Volatile Component	100.00%
Flash Point	41-42°C
Flammability	Flammable liquid.
Auto-Ignition Temperature	296 °C
Flammable Limits - Lower	0.7 v%
Flammable Limits - Upper	6.5 v%

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames, sparks and other ignition sources.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	Carbon dioxide and carbon monoxide.
Hazardous Reactions	Reacts with oxidising agents.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Acute toxicity: LD50 (Oral, rat): > 2000 mg/kg LD50 (Dermal, rat): > 2000 mg/kg (Rat) Inhalation LC > Near saturated vapour concentration/4hrs
Inhalation	May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, nausea and vomiting.
Ingestion	Harmful: may cause lung damage if swallowed. Ingestion of this product will irritate the gastric tract causing nausea and vomiting. Aspiration into the lungs may result in chemical pneumonitis.
Skin	May cause redness, itching and irritation. Prolonged contact with skin may cause a defatting effect causing dryness and cracking.
Eye	Mildly irritating to the eyes.

Chronic Effects	Prolonged and repeated skin contact may cause dermatitis due to defatting effect.
Reproductive Toxicity	Causes feototoxicity in animals at doses which are maternally toxic. Not expected to impair fertility.
Mutagenicity	Not expected to be mutagenic.
Carcinogenicity	IARC has classified ethyl benzene as a 'Possible human carcinogen' (Group 2B)

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence / Degradability	Readily biodegradable. Oxidises rapidly by photo chemical reactions in air.
Mobility	Floats on water.
Bioaccumulative Potential	Has potential to bioaccumulate.
Information on Ecological Effects	Acute toxicity: Fish, Harmful: LC/EC/IC50: 10 - 100 mg/l Aquatic invertebrates, Harmful: LC/EC/IC50: 10 - 100 mg/l Algae, Toxic: LC/EC/IC50 1 - 10 mg/l Microorganisms: Expected to be harmful: LC/EC/IC50 10 - 100 mg/l
Environment Protection	Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Dispose of waste according to federal, EPA and state regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain hazardous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

14. TRANSPORT INFORMATION

Transport Information	Australia: This material is classified as a Class 3 (Flammable Liquid) Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following: - Class 1, Explosive - Class 2.1, Flammable Gas, if both the Class 3 and Class 2.1 dangerous goods are in bulk - Class 2.3, Toxic Gas - Class 4.2, Spontaneously Combustible Substance

- Class 5.1, Oxidising Agent
- Class 5.2, Organic Peroxide
- Class 6, Toxic and Infectious Substances, if the Class 3 dangerous goods are nitromethane
- Class 7, Radioactive Substance

New Zealand:

This material is classified as a Class 3 - Flammable Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosives
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 4.2, Spontaneously combustible substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides or
- Class 7, Radioactive materials unless specifically exempted.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Class 4.3, Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides

U.N. Number 1300

Proper Shipping Name TURPENTINE SUBSTITUTE

DG Class 3

Hazchem Code 3[Y]

Packaging Method 3.8.3

Packing Group III

EPG Number 3A1

IERG Number 14

15. REGULATORY INFORMATION

Regulatory Information Australia:
Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC).
Poison Schedule: Schedule 5

Poisons Schedule S5

National and or International Regulatory New Zealand:
Classified as Hazardous according to the Hazardous Substances (Classification) Regulations 2001.

Information	HSNO Approval Number: HSR: 001498
Hazard Category	Harmful,Dangerous for the environment

16. OTHER INFORMATION

Date of preparation or last revision of MSDS

MSDS Reviewed: March 2007
MSDS Created: December 2006

Contact Person/Point

Australia: Business Hours: Mr Paul Verren
Telephone: (02) 9839 4024
Emergency Tel: 1800 022 037

New Zealand: Business Hours: Mr Lloyd Williams
Telephone: (09) 276 4019
Emergency Tel: 0800 154 666

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Nuplex Industries (Aust) Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

End of MSDS

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WESTERN AUSTRALIA

276 Leach Highway, MYAREE 6154
Tel: (08) 9333 0333 Fax: (08) 9333 0211

NEW SOUTH WALES

Site 11 – 6 Grand Avenue, CAMELLIA, NSW 2142
Tel: (02) 9877 8000 Fax: (02) 9638 5534

VICTORIA

333 Keilor Road, NIDDRIE, VIC 3042
Tel: (03) 9375 8888 Fax: 1300 650 687

QUEENSLAND

305 Tingira Street, PINKENBA QLD 4008
Tel: (07) 3260 1115 Fax: (07) 3260 1231

SOUTH AUSTRALIA

30 Waldaree Road, GEPPS CROSS SA 5094
Tel: (08) 8262 5411 Fax: (08) 8359 4331

NORTHERN TERRITORY

1769 Winnellie Road, WINNELLIE NT 0820
Tel: (08) 8984 0000 Fax: (08) 8984 0084

MATERIAL SAFETY DATA SHEET

Commercial Propane



MATERIAL SAFETY DATA SHEET

Commercial Propane

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (Material) Name	Liquefied Petroleum Gas (LP Gas)
Other Names	Propane
Recommended Use	Used as a fuel in domestic, commercial, industrial applications.
Supplier Name	Wesfarmers Kleenheat Gas Pty Ltd (ABN 40 008 679 543)
Address	276 Leach Highway Myaree, Western Australia, 6154
Telephone No.	132 180
Australian Emergency Contact No.	1800 093 336 (24 hours, 7 days)

2. HAZARDS INFORMATION

Hazard Classification	Classified as a highly flammable, liquefied gas for transport (ADG, UN, IATA/ICAO):
UN Number	1075, Petroleum Gases Liquefied.
Class	2.1
Subsidiary Risk	Nil
Packaging Group	N/A
HAZCHEM Code	2WE
Proper Shipping Name	Forbidden for transport on passenger aircraft. PETROLEUM GASES, LIQUEFIED
Packaging Method	5.9.2RT2
EPG Number	2.1.001
IERG Number	04
Risk Phrase(s)	R7 – May cause fire. R12 - Extremely flammable. R18 – In use, may form flammable – explosive vapour air mixture. R21 – Harmful in contact with skin.
Safety Phrase(s)	S9 – Keep container in a well ventilated place. S16 – Keep away from sources of ignition – no smoking. S18 – Handle and open container with care. S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S33 – Take precautionary measures against static discharges. S35 – This material and its container must be disposed of in a safe way. S43 – In case of fire, use dry chemical type extinguisher or water.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances	C ₃ H ₈ (propane)
Common Name	Propane
CAS Number	68477-94-1
Mixtures or Composite Materials	>90% Propane
Chemical Identity of the substance(s):	C ₃ H ₈ (propane)
Specification	In accordance with ALPGA specification for heating.

Hydrocarbon mixture of propane, propene (propylene) C₃H₈ (propane). A small quantity (typically up to 50 ppm) of ethyl mercaptan (stenching agent) is commonly added to assist in leak detection.

Contains	<0.1% 1,3-butadiene
Hazardous Components	No component is present at sufficient concentration to require a hazardous classification.
Proportion of Ingredients	>90% Propane.
Confidentiality Provisions	N/A
Disclosure of Ingredients	N/A

4. FIRST AID MEASURES

Inhalation

If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation of the eyes, nose or throat, remove immediately to fresh air. Keep patient warm and at rest. If any symptoms persist obtain medical advice.

Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferable by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.

Skin

If cold burns are present drench with water and obtain immediate medical advice.

Keep contaminated clothes away from ignition sources.

Eye

Wash eye thoroughly with copious quantities of water. Obtain IMMEDIATE medical attention.

Advice to Doctor

Treatment should in general be symptomatic and directed to relieving any effects.

Additional Information

N/A

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Smaller LP Gas fires may be extinguished by using dry chemical powder type extinguishers. Larger LP Gas fires are required to be controlled with use of water via hose reel, hydrants or automated deluge type systems.

Hazards from Combustion Products

Carbon Dioxide, Water Vapour, traces of Carbon Monoxide and Nitrogen Oxides. Fumes, smoke Carbon Monoxide and Aldehydes can be formed during incomplete combustion. Fire fighters may need self contained breathing apparatus.

Precautions for Fire Fighters and Special Protective Equipment

Evacuate area, remove ignition sources. Cut off gas supply if safe to do so – do not endanger life. DO NOT EXTINGUISH FIRE – allow gas to burn out. Use water to keep the container cool.

NOTE: If ignition has occurred and water is not available, the storage container metal may weaken from the heat and may result in an explosion. The area should be evacuated immediately. From a safe location, notify emergency services.

Hazchem Code

2WE

Additional Information

These materials are delivered, stored and used at temperatures above their flash point. Avoid all naked flames, sparks, cigarettes, etc.

In case of fire, immediately alert the fire brigade.

Ensure an escape path is always available from any fire. Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

If gas has ignited, do not attempt to extinguish but stop gas flow and allow to burn out. Use water spray to cool heat-exposed containers, and to protect surrounding areas and personnel effecting shut-off. DO NOT USE water jets.

Every precaution must be taken to keep containers cool to avoid the possibility of a boiling liquid expanding vapour explosion (BLEVE).

Pressurised containers are liable to explode violently when subjected to high temperatures.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

- As this product has a very low flash point any spillage or leak is a severe fire and/or explosion hazard. If a leak has not ignited, stop gas flow, isolate sources of ignition and evacuate personnel.
- Ensure good ventilation
- Liquid leaks generate large volumes of flammable vapour, heavier than air, which may travel to remote sources of ignition (eg along drainage systems). Where appropriate, use water spray to disperse the gas or vapour and to protect personnel attempting to stop leakage.
- Vapour may collect in any confined space.

Methods and Materials for containment and clean up procedures

If spillage has occurred in a confined space, ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry.

Do not enter a vapour cloud except for rescue; self-contained breathing apparatus must be worn. Wear protective clothing. See Exposure Controls/Personal Protection, section 8, of the Safety Data Sheet.

In the event of a leak, contact the appropriate authorities. Small quantities of spilled liquid may be allowed to evaporate. Vapour should be dispersed by effective ventilation.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Ensure good ventilation.

Avoid inhalation of vapour.

Avoid contact with liquid and cold storage containers.

When handling cylinders wear protective footwear and suitable gloves.

Avoid contact with the eyes.

Conditions for Safe Storage

Store and use only in equipment/containers designed for use with this product.

Store and dispense only in well ventilated areas away from the heat and sources of ignition.

Do not enter storage tanks. If entry to tanks is necessary, contact the supplier.

Containers must be properly labelled. Do not remove warning labels from containers.

Other Information

Fire Prevention

Ensure equipment is electrically bonded and earthed to prevent static accumulation.

Explosive air/vapour mixtures may form at ambient temperature.

Note: product spilt on clothing may give rise to delayed evaporation and subsequent fire hazard.

Storage and handling of commercial propane is controlled via the requirements of AS/NZS 1596 (Storage and Handling of LP Gas).

Please refer to Australian state and territory dangerous goods regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

Ensure good ventilation. Avoid, as far as reasonable practicable, inhalation of vapour generated during use. The vapour is an asphyxiant at high concentrations.

If vapour is generated, its concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Worksafe Australia recommend an Exposure Standard of 1000 ppm for commercial propane for an 8 hour time-weighted average (TWA).

Biological Limit Values

N/A

Engineering Controls

Store containers in an upright position (even when empty); keep away from heat sources; do not drop; keep valves closed when not in use. Where relief valves are fitted to bulk vessels or pipework, protection by rain caps or grease plugs must be given at all times. Store away from oxidising substances (eg pool chlorine).

Cylinders must be secured in an upright position for transport, as per ADG Code.

Respiratory Protection

If operations are such that exposure to vapour, mist or fume may be anticipated, then suitable approved respiratory equipment should be worn. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.

Body Protection

Wear suitable gloves and overalls to prevent cold burns and frostbite. In filling operations wear protective clothing including imperious gloves, safety goggles or face shield. When handling cylinders wear protective footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odour	Sulphurous/distinctive when stench
Boiling Point	<-42°C – test method ASTM D 86 (-42°C)
Vapour Pressure	300 – 1400 kPa @ 40°C
Solubility in Water @ 20°C	<200ppm
Physical State	Liquid (gas at ambient pressure)
Colour	Colourless
Density	Liquid 0.51 – 0.58 (water = 1) Vapour 1.52 – 2.01 (air = 1)
Flash Point	-104°C - 60°C
Autoignition Temperature	494°C - 549°C
Flammable Limits LEL	2.4% (in air v/v)
Flammable Limits UEL	9.6% (in air v/v)
Ratio of Expansion (liquid to vapour)	Propane 1; 273
Odourant	Ethyl Mercaptan @ dose rate of 25 parts per million.
Molecular Weight	44

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at ambient temperatures.

Hazardous Reactions

Hazardous polymerisation reactions will not occur.

Conditions to Avoid / Incompatible Materials

Avoid contact with strong oxidizing agents (ie. Chlorine, Pool chlorine, Nitric Acid, etc.)

Hazardous Decomposition Products

Incomplete combustion will generate hazardous gases, including carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute and Chronic Health Effects

None.

Possible Routes of Exposure/Range of Effects following exposure

- **Inhalation**

Low vapour concentrations may cause nausea, dizziness, headaches and drowsiness. May have a narcotic effect if high concentrations of vapour are inhaled. High vapour concentrations may produce symptoms of oxygen deficiency which, coupled with central nervous system depression, may lead to rapid loss of consciousness.

- **ABUSE:**

Under normal conditions of use the product is not hazardous, however, abuse involving deliberate inhalation of very high concentrations of vapour, even for short periods, can produce unconsciousness and/or result in a sudden fatality.

- **Skin**

Will cause cold burns and frostbite if skin contact with liquid occurs.

- **Eye**

Will present a risk of serious damage to the eyes if contact with liquid occurs.

Dose, Concentration or Conditions of Exposure likely to cause injury

- Saturated concentration of atmosphere may cause asphyxia.

Delayed Effects

N/A

12. ECOLOGICAL INFORMATION

Eco Toxicity

Not toxic to flora, fauna or soil organisms. Will not cause long term adverse effects in the environment and is not dangerous to ozone layer. Unlikely to cause long term effects in the aquatic environment.

Mobility

Spillages are unlikely to penetrate the soil. The product is volatile/gaseous and will partition to the air phase.

Persistence/Degradability

Unlikely to cause long term adverse effects in the environment.

Bioaccumulative Potential

This material is not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Do not dispose of any LPG container. Return all cylinders/vessels to supplier.
Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed.

Containers must not be opened to the atmosphere to remove remaining traces of liquid or vapour before disposal.

LP Gas containers should NEVER be inadvertently disposed of in any land fill facility without being rendered unusable before disposal.

‘EMPTY’ container warning: ‘empty’ containers retain residue (liquid and/or vapour) and can be dangerous. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS AND OTHER SOURCES OF IGNITION, THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean, as residue is difficult to remove. All containers should be returned to the supplier. Privately owned containers which are no longer required should be disposed of in an environmentally safe manner and in accordance with Government regulations.

14. TRANSPORT INFORMATION

Refer to Section 2.

Transport of LP Gas is controlled in accordance with the requirements of the Australian Dangerous Goods Code.

15. REGULATORY INFORMATION

Not classified using the criteria in the Standard Uniform Scheduling of Drugs and Poisons.

16. OTHER INFORMATION

- Ensure users and operators understand the flammability and potential explosive hazards associated with the storage and handling of liquefied petroleum gas.
- Contact with liquid may cause cold burns and or frostbite.
- Always ensure that cylinders are within test date (10 year maximum), are fit for use and are leak checked prior to use.
- Do not fill excessively dented, gouged or rusty containers (refer AS2337.1)
- Only fill containers to 80% fill level (ullage tube via decanting or mass via mechanical filling).
- MSDS Sheet prepared and last revised March 2005.

References

ALPGA Specification for Liquefied Petroleum Gas for Automotive use 2004.

ALPGA Specification for Liquefied Petroleum Gas for Heating use 2004.

NOHSC – Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)] 3rd Edition.

NOHSC – National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011 (2003)] 2nd Edition



SAFETY DATA SHEET

EC - Legislation 91/155/EEC

EXBERRY®

Shade fruity red

Quality : 1000 - 3.0

Product No. : 120610

Company: GNT International B.V.
P.O. Box 94, 5731 AB Mierlo, The Netherlands
Telephone: +31 - (0)492 668141
Fax : +31 - (0)492 668146

1. CHEMICAL PRODUCT IDENTIFICATION

Product name: **EXBERRY® Shade fruity red**
Quality: **1,000- 3.0, Product No. : 120610**

Common chemical name: n.a.
Product code (supplier): i.p.
INCI name: n.a.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients: n.a.

Chemical name	%	EINECS No.	CAS Number	EC Number	Symbol
n.a.					

Composition: Preparation manufactured from:
fruits invert sugar

3. HAZARD IDENTIFICATION

3.1 Environmental hazards: n.a.
3.2 Human health hazards: n.a.

4. FIRST AID MEASURES

Effects and symptoms:

4.1 Ingestion:	n.a.
4.2 Inhalation:	n.a.
4.3 Skin contact:	n.a.
4.4 Eye contact:	may cause irritation

First aid measures

4.5 Ingestion:	n.a.
4.6 Inhalation:	n.a.
4.7 Skin contact:	n.a.
4.8 Eye contact:	In case of contact with eyes, remove contact lenses and rinse immediately with plenty of water. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Extinguishing media:

5.1 Suitable:	water
5.2 Not suitable:	n.a.
5.3 Special firefighting procedures:	n.a.
5.4 Unusual fire/explosion hazards:	n.a.
5.5 Hazardous thermal (de)composition products:	n.a.
5.6 Protection of firefighters:	n.a.

6. ACCIDENTAL RELEASE METHODS

6.1 Personal precautions:	n.a.
6.2 Environmental precautions:	n.a.
6.3 Methods of cleaning up:	with water

7. HANDLING AND STORAGE

7.1 Handling:	as viscous liquid
7.2 Storage:	6 months, if stored in cool conditions below +10° C 12 months, if stored deep frozen at -18° C
7.3 Suitable packaging materials:	Shelf life applies to unopened and tightly sealed original containers as of date of delivery. foodstuff packaging
7.4 Not suitable packaging materials:	see above

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

TLV/STEL (USA):	n.a.
MAK (Germany):	n.a.
8.1 Respiratory system precaution:	n.a.
8.2 Skin and body protection:	n.a.
8.3 Hand protection:	n.a.
8.4 Eye protection:	not necessary

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Colour:	red
Odour:	aromatic
Boiling point:	100 -110°C
Melting point:	n.av.
pH:	< 3.5
Solubility	
water:	soluble
oil and solvents:	not soluble
Vapor density (Air = 1):	n.av.
Flash point:	n.av.
Autoignition temperature:	n.av.
Lower explosion limit:	n.av.
Upper explosion limit:	n.av.
Vapor pressure (mm Hg):	< 20 mbar (20°C)
Viscosity (mPas):	< 400

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid:	very high temperatures
10.2 Materials to avoid:	strong acids and bases, sulfides and sulfites
10.3 Hazardous decomposition products:	n.a.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	foodstuff, no health hazards
Oral (LD ₅₀):	n.av.
Dermal (LD ₅₀):	n.av.
Inhalation (LC ₅₀):	n.av.
11.1 Skin irritation:	n.av.
11.2 Eye irritation:	n.av.
11.3 Sensitization:	n.a.
11.4 Chronic toxicity:	n.a.
11.5 Carcinogenicity:	n.a.

12. ECOLOGICAL INFORMATION

Comment/Ecotoxicity:	foodstuff

13. DISPOSAL CONSIDERATIONS

Methods of disposal:	As foodstuff. Observe local, State and Federal or general regulations. Do not incinerate sealed containers.

14. TRANSPORT INFORMATION

UN Number:	n.a.
Road/railway	
ADR/RID class:	n.a.
ADR/RID item number:	n.a.
Inland waterways	
ADNR class:	n.a.
Sea	
IMDG class:	n.a.
IMDG page number:	n.a.
Air	
IATA-DGR class:	n.a.
National transport regulations:	n.a.
Comment:	foodstuff, regulations are not necessary

15. REGULATORY INFORMATION

EC regulations:	n.a.
EC classification:	n.a.
Label name:	n.a.
Hazard symbols:	n.a.
Risk phrases:	n.a.
Safety phrases:	n.a.

16. OTHER INFORMATION

Legend:	n.a.	=	not applicable;
	n.av.	=	not available;
	i.p.	=	determination in progress



SAFETY DATA SHEET

EC - Legislation 91/155/EEC

EXBERRY®

Shade cherry red clear

Quality : 1000 - 3.0

Product No. : 153330

Company: GNT International B.V.
P.O. Box 94, 5731 AB Mierlo, The Netherlands
Telephone: +31 - (0)492 668141
Fax : +31 - (0)492 668146

1. CHEMICAL PRODUCT IDENTIFICATION

Product name: **EXBERRY® Shade cherry red clear**
Quality: **1,000 - 3.0, Product No. : 153330**

Common chemical name: n.a.
Product code (supplier): i.p.
INCI name: n.a.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients: n.a.

Chemical name	%	EINECS No.	CAS Number	EC Number	Symbol
n.a.					

Composition: Preparation manufactured from:

fruits
vegetables

invert sugar
citric acid

3. HAZARD IDENTIFICATION

3.1 Environmental hazards: n.a.
3.2 Human health hazards: n.a.

4. FIRST AID MEASURES

Effects and symptoms:

4.1 Ingestion:	n.a.
4.2 Inhalation:	n.a.
4.3 Skin contact:	n.a.
4.4 Eye contact:	may cause irritation

First aid measures

4.5 Ingestion:	n.a.
4.6 Inhalation:	n.a.
4.7 Skin contact:	n.a.
4.8 Eye contact:	In case of contact with eyes, remove contact lenses and rinse immediately with plenty of water. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Extinguishing media:

5.1 Suitable:	water
5.2 Not suitable:	n.a.
5.3 Special firefighting procedures:	n.a.
5.4 Unusual fire/explosion hazards:	n.a.
5.5 Hazardous thermal (de)composition products:	n.a.
5.6 Protection of firefighters:	n.a.

6. ACCIDENTAL RELEASE METHODS

6.1 Personal precautions:	n.a.
6.2 Environmental precautions:	n.a.
6.3 Methods of cleaning up:	with water

7. HANDLING AND STORAGE

7.1 Handling:	as viscous liquid
7.2 Storage:	6 months, if stored in cool conditions below +10° C 12 months, if stored deep frozen at -18° C
7.3 Suitable packaging materials:	Shelf life applies to unopened and tightly sealed original containers as of date of delivery. foodstuff packaging
7.4 Not suitable packaging materials:	see above

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

TLV/STEL (USA):	n.a.
MAK (Germany):	n.a.
8.1 Respiratory system precaution:	n.a.
8.2 Skin and body protection:	n.a.
8.3 Hand protection:	n.a.
8.4 Eye protection:	not necessary

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Colour:	red
Odour:	fruity
Boiling point:	100 -110°C
Melting point:	n.av.
pH:	< 4.5
Solubility	
water:	soluble
oil and solvents:	not soluble
Vapor density (Air = 1):	n.av.
Flash point:	n.av.
Autoignition temperature:	n.av.
Lower explosion limit:	n.av.
Upper explosion limit:	n.av.
Vapor pressure (mm Hg):	< 20 mbar (20°C)
Viscosity (mPas):	< 400

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid:	very high temperatures
10.2 Materials to avoid:	strong acids and bases, sulfides and sulfites
10.3 Hazardous decomposition products:	n.a.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	foodstuff, no health hazards
Oral (LD ₅₀):	n.av.
Dermal (LD ₅₀):	n.av.
Inhalation (LC ₅₀):	n.av.
11.1 Skin irritation:	n.av.
11.2 Eye irritation:	n.av.
11.3 Sensitization:	n.a.
11.4 Chronic toxicity:	n.a.
11.5 Carcinogenicity:	n.a.

12. ECOLOGICAL INFORMATION

Comment/Ecotoxicity:	foodstuff

13. DISPOSAL CONSIDERATIONS

Methods of disposal:	As foodstuff. Observe local, State and Federal or general regulations. Do not incinerate sealed containers.

14. TRANSPORT INFORMATION

UN Number:	n.a.
Road/railway	
ADR/RID class:	n.a.
ADR/RID item number:	n.a.
Inland waterways	
ADNR class:	n.a.
Sea	
IMDG class:	n.a.
IMDG page number:	n.a.
Air	
IATA-DGR class:	n.a.
National transport regulations:	n.a.
Comment:	foodstuff, regulations are not necessary

15. REGULATORY INFORMATION

EC regulations:	n.a.
EC classification:	n.a.
Label name:	n.a.
Hazard symbols:	n.a.
Risk phrases:	n.a.
Safety phrases:	n.a.

16. OTHER INFORMATION

Legend:	n.a.	=	not applicable;
	n.av.	=	not available;
	i.p.	=	determination in progress



SAFETY DATA SHEET

EC - Legislation 91/155/EEC

EXBERRY®

Shade grape blue

Quality : 1000 - 3.0

Product No. : 183904

Company: GNT International B.V.
P.O. Box 94, 5731 AB Mierlo, The Netherlands
Telephone: +31 - (0)492 668141
Fax : +31 - (0)492 668146

1. CHEMICAL PRODUCT IDENTIFICATION

Product name: **EXBERRY® Shade grape blue**
Quality: **1,000 - 3.0, Product No. : 183904**

Common chemical name: n.a.
Product code (supplier): i.p.
INCI name: n.a.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients: n.a.

Chemical name	%	EINECS No.	CAS Number	EC Number	Symbol
n.a.					

Composition: Preparation manufactured from:

fruits	invert sugar
vegetables	citric acid

3. HAZARD IDENTIFICATION

3.1 Environmental hazards: n.a.
3.2 Human health hazards: n.a.

4. FIRST AID MEASURES

Effects and symptoms:

4.1 Ingestion:	n.a.
4.2 Inhalation:	n.a.
4.3 Skin contact:	n.a.
4.4 Eye contact:	may cause irritation

First aid measures

4.5 Ingestion:	n.a.
4.6 Inhalation:	n.a.
4.7 Skin contact:	n.a.
4.8 Eye contact:	In case of contact with eyes, remove contact lenses and rinse immediately with plenty of water. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Extinguishing media:

5.1 Suitable:	water
5.2 Not suitable:	n.a.
5.3 Special firefighting procedures:	n.a.
5.4 Unusual fire/explosion hazards:	n.a.
5.5 Hazardous thermal (de)composition products:	n.a.
5.6 Protection of firefighters:	n.a.

6. ACCIDENTAL RELEASE METHODS

6.1 Personal precautions:	n.a.
6.2 Environmental precautions:	n.a.
6.3 Methods of cleaning up:	with water

7. HANDLING AND STORAGE

7.1 Handling:	as viscous liquid
7.2 Storage:	6 months, if stored in cool conditions below +10° C 12 months, if stored deep frozen at -18° C
7.3 Suitable packaging materials:	Shelf life applies to unopened and tightly sealed original containers as of date of delivery. foodstuff packaging
7.4 Not suitable packaging materials:	see above

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits	
TLV/STEL (USA):	n.a.
MAK (Germany):	n.a.
8.1 Respiratory system precaution:	n.a.
8.2 Skin and body protection:	n.a.
8.3 Hand protection:	n.a.
8.4 Eye protection:	not necessary

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Colour:	red-bluish
Odour:	fruity
Boiling point:	100 -110°C
Melting point:	n.av.
pH:	< 4.0
Solubility	
water:	soluble
oil and solvents:	not soluble
Vapor density (Air = 1):	n.av.
Flash point:	n.av.
Autoignition temperature:	n.av.
Lower explosion limit:	n.av.
Upper explosion limit:	n.av.
Vapor pressure (mm Hg):	< 20 mbar (20°C)
Viscosity (mPas):	< 400

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid:	very high temperatures
10.2 Materials to avoid:	strong acids and bases, sulfides and sulfites
10.3 Hazardous decomposition products:	n.a.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	foodstuff, no health hazards
Oral (LD ₅₀):	n.av.
Dermal (LD ₅₀):	n.av.
Inhalation (LC ₅₀):	n.av.
11.1 Skin irritation:	n.av.
11.2 Eye irritation:	n.av.
11.3 Sensitization:	n.a.
11.4 Chronic toxicity:	n.a.
11.5 Carcinogenicity:	n.a.

12. ECOLOGICAL INFORMATION

Comment/Ecotoxicity:	foodstuff

13. DISPOSAL CONSIDERATIONS

Methods of disposal:	As foodstuff. Observe local, State and Federal or general regulations. Do not incinerate sealed containers.

14. TRANSPORT INFORMATION

UN Number:	n.a.
Road/railway	
ADR/RID class:	n.a.
ADR/RID item number:	n.a.
Inland waterways	
ADNR class:	n.a.
Sea	
IMDG class:	n.a.
IMDG page number:	n.a.
Air	
IATA-DGR class:	n.a.
National transport regulations:	n.a.
Comment:	foodstuff, regulations are not necessary

15. REGULATORY INFORMATION

EC regulations:	n.a.
EC classification:	n.a.
Label name:	n.a.
Hazard symbols:	n.a.
Risk phrases:	n.a.
Safety phrases:	n.a.

16. OTHER INFORMATION

Legend:	n.a.	=	not applicable;
	n.av.	=	not available;
	i.p.	=	determination in progress



SAFETY DATA SHEET

EC - Legislation 91/155/EEC

EXBERRY®

Shade lemon yellow

Quality : 1000 - 3.0

Product No. : 548310

Company: GNT International B.V.
P.O. Box 94, 5731 AB Mierlo, The Netherlands
Telephone: +31 - (0)492 668141
Fax : +31 - (0)492 668146

1. CHEMICAL PRODUCT IDENTIFICATION

Product name: **EXBERRY® Shade lemon yellow**
Quality: **1,000 - 3.0, Product No. : 548310**

Common chemical name: n.a.
Product code (supplier): i.p.
INCI name: n.a.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients: n.a.

Chemical name	%	EINECS No.	CAS Number	EC Number	Symbol
n.a.					

Composition: Preparation manufactured from:

fruits
vegetables

invert sugar
citric acid

3. HAZARD IDENTIFICATION

3.1 Environmental hazards: n.a.
3.2 Human health hazards: n.a.

4. FIRST AID MEASURES

Effects and symptoms:

4.1 Ingestion:	n.a.
4.2 Inhalation:	n.a.
4.3 Skin contact:	n.a.
4.4 Eye contact:	may cause irritation

First aid measures

4.5 Ingestion:	n.a.
4.6 Inhalation:	n.a.
4.7 Skin contact:	n.a.
4.8 Eye contact:	In case of contact with eyes, remove contact lenses and rinse immediately with plenty of water. Get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Extinguishing media:

5.1 Suitable:	water
5.2 Not suitable:	n.a.
5.3 Special firefighting procedures:	n.a.
5.4 Unusual fire/explosion hazards:	n.a.
5.5 Hazardous thermal (de)composition products:	n.a.
5.6 Protection of firefighters:	n.a.

6. ACCIDENTAL RELEASE METHODS

6.1 Personal precautions:	n.a.
6.2 Environmental precautions:	n.a.
6.3 Methods of cleaning up:	with water

7. HANDLING AND STORAGE

7.1 Handling:	as viscous liquid
7.2 Storage:	6 months, if stored in cool conditions below +10° C 12 months, if stored deep frozen at -18° C
7.3 Suitable packaging materials:	Shelf life applies to unopened and tightly sealed original containers as of date of delivery. foodstuff packaging
7.4 Not suitable packaging materials:	see above

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

TLV/STEL (USA):	n.a.
MAK (Germany):	n.a.
8.1 Respiratory system precaution:	n.a.
8.2 Skin and body protection:	n.a.
8.3 Hand protection:	n.a.
8.4 Eye protection:	not necessary

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	liquid
Colour:	yellow
Odour:	aromatic
Boiling point:	100 -110°C
Melting point:	n.av.
pH:	< 4.0
Solubility	
water:	soluble
oil and solvents:	not soluble
Vapor density (Air = 1):	n.av.
Flash point:	n.av.
Autoignition temperature:	n.av.
Lower explosion limit:	n.av.
Upper explosion limit:	n.av.
Vapor pressure (mm Hg):	< 20 mbar (20°C)
Viscosity (mPas):	< 400

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid:	very high temperatures
10.2 Materials to avoid:	strong acids and bases, sulfides and sulfites
10.3 Hazardous decomposition products:	n.a.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	foodstuff, no health hazards
Oral (LD ₅₀):	n.av.
Dermal (LD ₅₀):	n.av.
Inhalation (LC ₅₀):	n.av.
11.1 Skin irritation:	n.av.
11.2 Eye irritation:	n.av.
11.3 Sensitization:	n.a.
11.4 Chronic toxicity:	n.a.
11.5 Carcinogenicity:	n.a.

12. ECOLOGICAL INFORMATION

Comment/Ecotoxicity:	foodstuff

13. DISPOSAL CONSIDERATIONS

Methods of disposal:	As foodstuff. Observe local, State and Federal or general regulations. Do not incinerate sealed containers.

14. TRANSPORT INFORMATION

UN Number:	n.a.
Road/railway	
ADR/RID class:	n.a.
ADR/RID item number:	n.a.
Inland waterways	
ADNR class:	n.a.
Sea	
IMDG class:	n.a.
IMDG page number:	n.a.
Air	
IATA-DGR class:	n.a.
National transport regulations:	n.a.
Comment:	foodstuff, regulations are not necessary

15. REGULATORY INFORMATION

EC regulations:	n.a.
EC classification:	n.a.
Label name:	n.a.
Hazard symbols:	n.a.
Risk phrases:	n.a.
Safety phrases:	n.a.

16. OTHER INFORMATION

Legend:	n.a.	=	not applicable;
	n.av.	=	not available;
	i.p.	=	determination in progress



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

Print Date 05.09.2008

Page 1 (7)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade name : NATURAL SOLUBLE LEMON FLAVOUR

Use of the Substance/Preparation : Flavor for consumer product

Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH

Telephone : +61397889200

Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

R-phrases : R10 Flammable.

S-phrases : S60 This material and its container must be disposed
of as hazardous waste.

Advice : When undiluted and not properly handled, can be irritating to the skin
and eyes and upon inhalation.

Potential environmental effect : When spilled, can contaminate soil, ground- and surface water.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s),
presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an
occupational exposure limit:

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INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

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CAS-No.	Components	Classification	Concentration

For the full text of the R phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash

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INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

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any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

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Revision Date : 28.06.2007



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INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

Print Date 05.09.2008

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a)while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hand protection : Avoid skin contact. Use chemically resistant gloves.

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

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Revision Date : 28.06.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

Print Date 05.09.2008

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : colorless to pale yellow

Safety data

Flash point : 23.00 °C
Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

Version : 1
Revision Date : 28.06.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

Print Date 05.09.2008

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ADG

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

ADR

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

IATA

UN-Number : 1197
Description of the goods : Extracts, flavouring, liquid
Class : 3
Packaging group : III

IMDG_GLOBAL

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives1999/45/EC

R-phrases : R10 Flammable.
S-phrases : S60 This material and its container must be disposed of as hazardous waste.
Sensitising components : citral
May produce an allergic reaction.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

Version : 1
Revision Date : 28.06.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURAL SOLUBLE LEMON FLAVOUR

Print Date 05.09.2008

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16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

Version : 1
Revision Date : 28.06.2007



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product NATURE IDENTICAL SOLUBLE LIME FLAVOUR

Print Date 10.10.2008

Page 1 (7)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : NATURE IDENTICAL SOLUBLE LIME FLAVOUR
Cust. Material : SN607107
Use of the Substance/Preparation : Flavor for consumer product
Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

R-phrases(s) : R10 Flammable.
Advice : When undiluted and not properly handled, can be irritating to the skin and eyes and upon inhalation.
Potential environmental effect : When spilled, can contaminate soil, ground- and surface water.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an occupational exposure limit:

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CAS-No.	Components	Classification	Concentration
		Xn, R65	0 - 10 %

For the full text of the R-phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

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7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material.

If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc.

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are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

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Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Odour : Conforms to Standard

Safety data

Flash point : 23.00 °C
Vapour pressure : Note: not determined
Relative density (20 °C) : 0.8900 - 0.9100

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

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Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

ADR

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III

IATA

UN-Number : 1197
Description of the goods : Extracts, flavouring, liquid
Class : 3
Packaging group : III

IMDG GLOBAL

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packaging group : III
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

R-phrases : R10 Flammable.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

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16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

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Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: NEOTAME

Recommended Use: Artificial sweetener for cosmetic applications (breath freshener).

Supplier: Bronson & Jacobs Pty Ltd
ABN: 81 000 063 249
Street Address: 70 Marple Avenue
Villawood NSW 2163
Australia
Telephone Number: +61 2 8717 2929
Facsimile: +61 2 9755 9611

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Based on available information, not classified as hazardous according to criteria of ASCC; NON-HAZARDOUS SUBSTANCE.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Poisons None allocated.
Schedule:

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components / CAS Number	Proportion	Risk Phrases
N-[N-(3,3-dimethylbutyl)-L-alpha-aspartyl]-L-phenylalanine 1-methyl ester	100%	-
165450-17-9		

4. FIRST AID MEASURES

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

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Eye Contact: If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Medical attention and special treatment: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazards from combustion products: Combustible solid.

Precautions for fire fighters and special protective equipment: On burning will emit toxic fumes, including those of oxides of carbon and oxides of nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Suitable Extinguishing Media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures: If contamination of sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and clean up: Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Wash area down with detergent and excess water.

7. HANDLING AND STORAGE

Conditions for safe storage: Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store between 15°C and 30°C. Store between 35-60% relative humidity. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

Precautions for safe handling: Avoid skin and eye contact and breathing in dust.
Avoid handling which leads to dust formation. In common with many organic chemicals,

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Substance No: 000000032691

Issued: 08/02/2007

Version: 1



Material Safety Data Sheet

may form flammable dust clouds in air. For precautions necessary refer to Safety Data Sheet "Dust Explosion Hazards". Take precautionary measures against static discharges.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates:

Nuisance dust: 8hr TWA = 10 mg/m³

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protective Equipment:

The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK.

Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If excessive dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Powder
Colour:	White
Odour:	Odourless
Molecular Formula:	C ₂₀ H ₃₀ N ₂ O ₅ -H ₂ O
Specific Gravity:	Not available

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Relative Vapour Density (air=1): Not available
Vapour Pressure (20 °C): Not available
Flash Point (°C): Not applicable
Autoignition Temperature (°C): Not available
Solubility in water (g/L): Not available
Melting Point/Range (°C): 80-83
Boiling Point/Range (°C): Not available
Decomposition Point (°C): Not available
pH: Not available

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.

Conditions to avoid: Avoid exposure to heat, sources of ignition, and open flame. Avoid dust generation.

Incompatible materials: Incompatible with strong oxidising agents.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen.

Hazardous reactions: Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.

Eye contact: May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Skin contact: Repeated or prolonged skin contact may lead to irritation.

Inhalation: Breathing in dust may result in respiratory irritation.

Long Term Effects:
No information available for the product.

Toxicological Data:
No LD50 data available for the product.

SKIN: Slight irritant. Not a skin sensitiser (guinea pig). (1)
EYES: Slight irritant. (1)

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12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification: Based on available information, not classified as hazardous according to criteria of ASCC; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule: None allocated.

A constituent of this material is new and has not been assessed in Australia. It is being used in quantities < 10 kg per annum for cosmetic applications under the provisions of subsection 2.6(f) of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended

16. OTHER INFORMATION

(1) Supplier Material Safety Data Sheet; 01/ 2003.

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

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Substance No: 000000032691

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Material Safety Data Sheet

Reason(s) for Issue:

First Issue Primary MSDS

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Bronson & Jacobs Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Bronson & Jacobs Pty Ltd at the contact details on page 1.

Bronson & Jacobs Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.

Product Name: NEOTAME
Substance No: 000000032691

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BOC Limited
ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **NITROGEN, COMPRESSED (BOC LIMITED - AUS)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name BOC LIMITED (AUSTRALIA)
Address 10 Julius Avenue, North Ryde NSW, 2113, AUSTRALIA
Telephone +61 131 262, (02) 8874 4400
Fax +61 132 427 (24 hours)
Emergency 1800 653 572 (A/H) (Australia only)
Synonyms BOC NITROGEN, COMPRESSED, NITROGEN, PRODUCT CODES: 030, 032, 033, 034, 035, 036, 038, 129, 234.
Uses INERT GAS, TYRE INFLATION, PNEUMATIC EQUIPMENT.

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA
CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
NITROGEN	N2	>99.9%	7727-37-9

4. FIRST AID MEASURES

Eye Not applicable.

Inhalation Remove from area of exposure immediately. If assisting a victim avoid becoming a casualty, wear an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. If victim is not breathing apply artificial respiration and seek urgent medical attention. Give oxygen if available. Keep warm and rested.

Skin Not applicable.

Ingestion Ingestion is considered unlikely. However, should ingestion occur, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

Advice To Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability Non flammable.

Fire and Explosion Non flammable. Temperatures in a fire may cause cylinders to rupture. Call fire brigade. Cool cylinders exposed to fire by applying water from a protected location. Do not approach cylinders suspected of being hot.

Extinguishing Non flammable. Use water fog to cool containers from protected area.

Colour
Rating
AMBER

BOC Limited
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Tel + 61 131 262
Fax + 61 132 427

Product Name **NITROGEN, COMPRESSED (BOC LIMITED - AUS)**

5. FIRE FIGHTING MEASURES cont.

Hazchem Code 2[T]

6. ACCIDENTAL RELEASE MEASURES

Spillage GAS CYLINDERS: If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate PPE and carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.

7. HANDLING AND STORAGE

Handling Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas (eg. if container is damaged).

Storage Do not store near sources of ignition or incompatible materials. Cylinders should be stored below 45 C in a secure area, upright and restrained to prevent cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Use with adequate natural ventilation. Open windows and doors where possible. In poorly ventilated areas, mechanical extraction ventilation is recommended.

Exposure Standards NITROGEN (7727-37-9)
ES-TWA : Asphyxiant
WES-TWA : Asphyxiant

PPE Wear safety glasses and leather gloves. Where an inhalation risk exists, wear Self Contained Breathing Apparatus (SCBA) or an Air-line respirator.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: COLOURLESS GAS
Odour: ODOURLESS
pH: NOT AVAILABLE
Vapour Pressure: NOT AVAILABLE
Vapour Density: 0.967 (Air = 1)
Boiling Point: - 195.8 C
Melting Point: NOT AVAILABLE
Evaporation Rate: NOT AVAILABLE

**Colour
Rating
AMBER**

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10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **NITROGEN, COMPRESSED (BOC LIMITED - AUS)**

9. PHYSICAL AND CHEMICAL PROPERTIES cont.

Solubility (water): 0.0149 cm³/cm³
Specific Gravity: NOT AVAILABLE
% Volatiles: NOT AVAILABLE
Flammability: NON FLAMMABLE
Flash Point: NOT RELEVANT
Upper Explosion Limit: NOT RELEVANT
Lower Explosion Limit: NOT RELEVANT
Autoignition Temperature: NOT AVAILABLE
Cylinder pressure (when full): 13,000 - 30,000 kPa

10. STABILITY AND REACTIVITY

Reactivity Compatible with most commonly used materials. Avoid heating cylinders.

Decomposition Products May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Asphyxiant gas. Symptoms of exposure are directly related to displacement of oxygen from air. As the amount of oxygen inhaled is reduced from 21-14% volume, the pulse rate will accelerate and the rate and volume of breathing will increase. The ability to maintain attention and think clearly is diminished, muscular co-ordination is somewhat disturbed. As oxygen decreases from 14-10% volume, judgement becomes faulty, severe injuries may cause no pain. Muscular effort lead to rapid fatigue. Further reduction to 6% may cause nausea and vomiting. Ability to move may be lost. Permanent brain damage may result even after resuscitation from exposure to this low level of oxygen. Below 6% breathing is in gasps and convulsions may occur. Inhalation of a mixture containing no oxygen may result in unconsciousness from the first breath and death will follow in minutes.

Eye Non irritating.

Inhalation Non irritating - Asphyxiant. Effects are proportional to oxygen displacement.

Skin Non irritating.

Ingestion Due to product form, ingestion is considered highly unlikely.

12. ECOLOGICAL INFORMATION

Environment Nitrogen is the major component of the atmosphere (78 % v/v). It is a fairly unreactive gas and will not contribute to ozone depletion or global warming. If released to soil or water, nitrogen will quickly disperse to the atmosphere. Not toxic to plants or animals except at extremely high (asphyxiating) levels.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Cylinders should be returned to the manufacturer or supplier for disposal.

**Colour
Rating
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Fax + 61 132 427

Product Name **NITROGEN, COMPRESSED (BOC LIMITED - AUS)**

13. DISPOSAL CONSIDERATIONS cont.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Transport Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.

UN Number 1066

Shipping Name NITROGEN, COMPRESSED

DG Class 2.2

Subsidiary None Allocated

Risk(s)

Packing Group None Allocated

Hazchem Code 2[T]

15. REGULATORY INFORMATION

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

Poison Schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

16. OTHER INFORMATION

Additional Information APPLICATION METHOD: Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

COLOUR RATING SYSTEM: Chem Alert reports are assigned a colour rating of Green, Amber or Red for the purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:

mg/m3 - Milligrams per cubic metre

**Colour
Rating
AMBER**

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ABN 95 000 029 729
10 Julius Avenue
NORTH RYDE NSW 2113
Tel + 61 131 262
Fax + 61 132 427

Product Name **NITROGEN, COMPRESSED (BOC LIMITED - AUS)**

16. OTHER INFORMATION cont.

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

Report Reviewed 8th November 2005

Date Printed 8th November 2005

Report Status Chem Alert reports are compiled as an independent source of information by RMT's scientific department. The information is based on the latest chemical and toxicological research, and in compliance with relevant standards, guidance notes and legislation (where applicable). The Chem Alert report is not intended as a replacement to the manufacturer's original MSDS that is provided to Chem Alert subscribers for convenience. In many instances, Chem Alert reports are compiled on behalf of manufacturers, in which case they serve as the "Manufacturer's MSDS" and are clearly identified as such on the relevant reports.

Prepared By Risk Management Technologies
5 Ventnor Avenue, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Web: www.rmt.com.au

**Colour
Rating
AMBER**



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product ORANGE

Print Date 10.10.2008

Page 1 (7)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : ORANGE
Cust. Material : SN623752
Use of the Substance/Preparation : Flavor for consumer product
Company :
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Classified as dangerous goods according to the ADG Code
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

Symbol(s) : F Highly flammable
R-phrased(s) : R11 Highly flammable.
S-phrased(s) : S 9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an

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occupational exposure limit:

CAS-No.	Components	Classification	Concentration
97766-30-8	Orange, sweet, Valencia, ext.	Xn, R10, R65	0 - 10 %

For the full text of the R-phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

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7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material.

If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc.

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are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

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Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : pale orange

Safety data

Flash point : 17.00 °C
Vapour pressure : 56.9502744 hPa
Note: Calculated
Relative density (20 °C) : 0.8020 - 0.8220

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

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13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

ADG

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : II

ADR

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : II

IATA

UN-Number : 1197
Description of the goods : Extracts, flavouring, liquid
Class : 3
Packing group : II

IMDG GLOBAL

UN-Number : 1197
Description of the goods : EXTRACTS, FLAVOURING, LIQUID
Class : 3
Packing group : II
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

Symbol(s) : F Highly flammable

R-phrases : R11 Highly flammable.

S-phrases : S 9 Keep container in a well-ventilated place.

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S16	Keep away from sources of ignition - No smoking.
S33	Take precautionary measures against static discharges.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 Flammable.

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

Version	: 1
Revision Date	: 25.06.2008



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product ORANGE EMULSION

Print Date 08.09.2008

Page 1 (7)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : ORANGE EMULSION
Cust. Material : 1AA06977
Use of the Substance/Preparation : Flavor for consumer product
Company : International Flavors and
Fragrances (Australia) Pty Ltd
310 FRANKSTON DANDENONG ROAD
3175 DANDENONG SOUTH
Telephone : +61397889200
Emergency telephone : +1 703 5273887

2. HAZARDS IDENTIFICATION

Nature of Hazard

Not classified as dangerous goods according to the ADG Code.
Not classified as hazardous according to criteria of NOHSC.

Risk advice to man and the environment

Additional Info : Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.
Advice : When undiluted and not properly handled, can be irritating to the skin and eyes and upon inhalation.
Potential environmental effect : When spilled, can contaminate soil, ground- and surface water.

Standard for the Uniform Scheduling of Drugs and Poisons.

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and Poisons.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. : Not applicable, product is a mixture.

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of Directive 67/548/EEC, or having an

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occupational exposure limit:

CAS-No.	Components	Classification	Concentration
97766-30-8		Xn, R10, R65	0 - 10 %

For the full text of the R phrases mentioned in this Section, see Section 16.

Ingredients determined as non hazardous

60 - 100%

4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

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7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material

If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc.

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are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110]. In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace". Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports. The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

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Components with workplace control parameters

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : yellow

Safety data

Flash point : > 100.0 °C
Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

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14. TRANSPORT INFORMATION

ADG

Not dangerous goods

ADR

UN-Number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(D-LIMONENE, ALPHA-PINENE)
Class : 9
Packaging group : III

IATA

Not dangerous goods

IMDG_GLOBAL

Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives

Additional Info : Not a hazardous substance or preparation according to EC-directives
67/548/EEC or 1999/45/EC.

Special labelling of certain preparations : Safety datasheet available on request for professional users.
Orange, sweet, Valencia, ext.

National regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons. : No poison schedule number allocated

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

Further information

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The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

Version : 1
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Material Safety Data Sheet

OXYGEN, Compressed (O2)

Infosafe No. FMOU5 **Issue Date** July 2004 **Status** ISSUED by AIRLIQUI

Not classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name OXYGEN, Compressed (O2)

Product Use Sustains life, supports combustion. Used in steel making and with a fuel gas for welding, cutting and heating applications.

Company Name Air Liquide Australia Limited (ABN 57 004 385 782)

Address Level 9, 380 St. Kilda Road Melbourne
Victoria 3004

Emergency Tel. 1800 812588 (24hr)

Telephone Number/Fax Tel: (03) 9697 9888
Fax: (03) 9690 7107

Other Names	Name	Product Code
	Oxygen	
	Lasal 2003	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Oxygen	7782-44-7	99.5-100 %

3. HAZARDS IDENTIFICATION

Chronic Effects	Exposure at normal or elevated pressure may cause severe thickening and scarring of lung tissues.
Inhalation	Gas is non-toxic. Breathing high concentrations of oxygen may cause symptoms of hyperoxia including cramps, nausea, dizziness, hypothermia, ambylopia, respiratory difficulties, bradycardia, fainting spells and convulsions capable of leading to death.
Ingestion	Not applicable to gases.
Skin	Not irritating to the skin.
Eye	Not irritating to the eye.

4. FIRST AID MEASURES

Inhalation	Remove victim/s from source of contamination, to fresh air. Keep victim warm, comfortable and rested. Recovery should be rapid upon removal from exposure, but monitor victim/s breathing. If breathing distress is apparent, administer Expired Air resuscitation, and CPR if pulse is absent, and send for medical assistance immediately.
Ingestion	Not applicable to gases.
Skin	Seek medical attention if any effects of exposure persist, or immediately if extending from physical injury.
Eye	Seek medical attention if any effects of exposure persist, or immediately if extending from physical injury.
First Aid Facilities	Eyewash and normal washroom facilities recommended.
Advice to Doctor	Treatment for hyperoxia.

5. FIRE FIGHTING MEASURES

Specific Hazards	Oxygen is non-flammable, but container may rupture when heated. Move cylinders from fire if safe to do so. Cool cylinders with water from a protected location. If unable to keep cylinders cool, evacuate area.
Flash Point	Non flammable
Flammable Limits UEL	Non flammable
Flammable Limits LEL	Non flammable

Flammability Non-flammable product but vigorously supports combustion of materials which will not usually burn in air. Concentrations of 25% oxygen will significantly increase the rate of combustion for some materials. Fires may start easily due to the reduced temperatures required to ignite materials in oxygen enriched atmospheres.

6. ACCIDENTAL RELEASE MEASURES

Other Information In enclosed areas rescue personnel should wear AS 1715/1716 approved self contained breathing apparatus. Leak checking may be done by pressure drop test or by using soapy water on joints and outlets. Shut cylinder valve to stop gas leaks from equipment if possible and safe to do so. If cylinder or cylinder valve is leaking then put on personal protective equipment, shut the cylinder valve, depressurise the equipment, disconnect cylinder from equipment and move the cylinder to a well ventilated area, preferably outdoors, and position to allow gas, rather than liquid to escape. If not possible, allow any liquid to vapourize. Use of a flammable gas monitor will warn of gas build-up in locality. If possible, repair the leak or allow the cylinder to vent in external atmosphere. Mark empty cylinders 'defective'. Return all faulty cylinders to supplier/manufacture.

7. HANDLING AND STORAGE

Handling No smoking or naked lights. Check for leaks after pressurising system and prior to starting any operating. Only experienced and properly trained people should use this product. Open cylinder valve slowly to avoid pressure shock and close when not in use.

Storage Storage of compressed gas cylinders shall be in compliance with State or Territory regulations. Cylinders shall be stored in a cool, dry, well ventilated area out of direct sunlight and away from heat and ignition sources. Outside or detached storage is preferred. No part of cylinders shall be exposed to temperatures above 55°C. Cylinders shall be stored upright on a level, fireproof floor, secure in position and protected from damage. Full cylinders shall be stored separately from empties. Keep cylinder valve cover on. Label empty cylinders and store full cylinders separately from empty ones. Consider leak detection and alarm systems, as required. Limit quantity in storage. Restrict access to storage area and post warning signs. Inspect periodically for deficiencies such as damage or leaks. Have fire extinguishers available in and near the storage area. Comply with all applicable regulations for the storage and handling of compressed gases. Cylinders should be moved by hand-truck or cart designed for that purpose. Avoid any contact with oil or grease particularly to the cylinder valve.

Packaging CYLINDER COLOUR: Black.
CYLINDER VALVE OUTLET: AS2473 type 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National

Exposure Standards	No exposure standards have been established by Worksafe Australia.
Eye Protection	Chemical goggles or safety glasses should be worn to protect against sudden uncontrolled gas release.
Hand Protection	Leather, PVC or Teflon gloves should worn.
Footwear	Personnel engaged in the movement of gas cylinders shall be provided with safety footwear.
Eng. Controls	Not required for conditions of use. Ensure ventilation is adequate to maintain oxygen concentration between 18% and 21%.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless, odourless and tasteless.
Boiling Point	(at 101.32 kPa): -183°C
Solubility in Water	0.0489 m3/kg
Specific Gravity (H2O=1)	None allocated
Vapour Pressure	(kPa at 25°C): No liquid phase
Vapour Density (Air=1)	(0°C, 101.3 kPa, Air = 1): 1.105
Flash Point	Non flammable
Flammability	Non-flammable product but vigorously supports combustion of materials which will not usually burn in air. Concentrations of 25% oxygen will significantly increase the rate of combustion for some materials. Fires may start easily due to the reduced temperatures required to ignite materials in oxygen enriched atmospheres.
Flammable Limits LEL	Non flammable
Flammable Limits UEL	Non flammable
Molecular Weight	32.00
Other Information	Critical temperature: -118.6°C. Density of gas (101.3 Kpa, 15°C): 1.35 kg/m3

Relative Density (@15°C), (Air=1): 1.105

10. STABILITY AND REACTIVITY

Hazardous Reaction

Use extinguishing media suitable for surrounding environment.

11. TOXICOLOGICAL INFORMATION

Inhalation

Gas is non-toxic. Breathing high concentrations of oxygen may cause symptoms of hyperoxia including cramps, nausea, dizziness, hypothermia, ambylopia, respiratory difficulties, bradycardia, fainting spells and convulsions capable of leading to death.

Ingestion

Not applicable to gases.

Skin

Not irritating to the skin.

Eye

Not irritating to the eye.

Chronic Effects

Exposure at normal or elevated pressure may cause severe thickening and scarring of lung tissues.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Waste treatment procedures must be performed by trained, experienced personnel with appropriate protective equipment in approved treatment facilities, and in accordance with all federal, state and local government requirements.

14. TRANSPORT INFORMATION

Product is classified as a Dangerous Good Class 2.2, Sub Risk 5.1 OXYGEN COMPRESSED in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

U.N. Number 1072

Proper Shipping Name

OXYGEN, COMPRESSED

DG Class

2.2

Sub.Risk

5.1

Hazchem Code 2[S]

Packaging Method 3.8.2

Packing Group

EPG Number 2C6

IERG Number 11

15. REGULATORY INFORMATION

Risk Phrase

Poisons Schedule Not Scheduled

Packaging & Labelling CYLINDER COLOUR: Black.
CYLINDER VALVE OUTLET: AS2473 type 10.

16. OTHER INFORMATION

Contact Person/Point 24 HOUR EMERGENCY CONTACT: The Operator: 1800 812 588

Regional Offices:

Victoria
40 Bunnett Street, North Sunshine 3020. Tel. (03) 9290 1100 Fax (03) 9290 1199

New South Wales
43-47 Pine Road, Fairfield 2165. Tel. (02) 9892 9777 Fax (02) 9892 1454
4 Kullara Close, Beresfield. 2322. Tel (02) 4949 1700 Fax (02) 4949 1750
Lot 5, Shellharbour Road, Port Kembla 2505. Tel. (02) 4274 4044 Fax (02) 4276 3879

South Australia
164 Philip Highway, Elizabeth 5112. Tel. (08) 8209 3600 Fax (08) 8255 9885

Queensland
759 Progress Road, Wacol 4076. Tel. (07) 3246 6363 Fax (07) 3271 2589
Ingham Road, Cnr. Dundee Street,
Bohle, Townsville, 4818
Tel. (07) 4774 8276 Fax (07) 4774 8313
Featherstone Street, Parkhurst
Rockhampton, 4702. Tel. (07) 4936 1066 Fax (07) 4936 1024
68 Bunda Street, Cairns 4870. Tel. (07) 4031 1566 Fax (07) 4051 4293

Tasmania
11 Windsor Street, Invermay 7248. Tel. (03) 6334 9666 Fax (03) 6334 9600
Air Liquide W.A. Pty Ltd
A.B.N. 52 008 694 166
Wesfarmers Energy Building, Campus Drive (off Murdoch Drive), Murdoch, WA 6150

Tel. (08) 9312 9111 Fax (08) 9313 8108

AIR LIQUIDE AUSTRALIA LIMITED

A.B.N. 57 004 385 782

Head Office:

380 St. Kilda Road, Melbourne, Victoria 3004, Australia. Tel. (03) 9697 9888 Fax

(03) 9690 7107

www.airliquide.com.au

- References**
- L'Air Liquide Gas Encyclopedia - Elsevier Scientific Publishing Co. Amsterdam
 - Australian Code for the Transport of Dangerous Goods by Road and Rail; 6th Edition
 - List of Designated Hazardous Substances [NOHSC:10005(1994)]
 - Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995) and NOHSC:1003(1995)]
 - Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1994)]
 - EPG Cards; or SAA/SNZ HB76 Initial Emergency Response Guide
 - Matheson Gas Data Book, 6th Edition, Matheson 1980
 - Canadian Liquid Air Montreal, Canada - Gas Products Safety Data Sheets
 - Tomes Database, Micromedex

**Poisons
Schedule** Not Scheduled

**Molecular
Weight** 32.00

End of MSDS

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SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : CELERY FLAVOUR
COMMERCIAL CODE : 750008A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
5% - 10%	ETHANOL	
	F R 11	
	64-17-5	200-578-6
	(R)-P-MENTHA-1,8-DIENE	OEL (mg/m3) : 1000.00
1% - 5%	Xi N R 10-38-43-50/53	
	5989-27-5	227-813-5

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT
CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER
THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

HIGHLY FLAMMABLE
MAY CAUSE SENSITISATION BY SKIN CONTACT
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE
EFFECTS IN THE AQUATIC ENVIRONMENT
HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.MSDS0001
750008A
CELERY FLAVOUR* : modified data
EEC2.01.16/07/2007
p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : GREENISH DARK BROWN

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
APPEARANCE : LIQUID

FLASHPOINT (°C) : 12

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : NOT DETERMINED
 BULKDENSITY SOLID (KG/L) : NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
		no	GROUP RISK(S)
RID/ADR	: 3	1197	II
	EXTRACTS, FLAVOURING,	LIQUID	
IMDG	: 3	1197	II
	EXTRACTS, FLAVOURING,	LIQUID	
ICAO/IATA	: 3	1197	II
	EXTRACTS, FLAVOURING,	LIQUID	

15 - REGULATORY INFORMATION

Xn	HARMFUL
F	HIGHLY FLAMMABLE
N	DANGEROUS FOR THE ENVIRONMENT
R 11	HIGHLY FLAMMABLE
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 65	HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.
S 9	KEEP CONTAINER IN A WELL-VENTILATED PLACE
S 16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING
S 24	AVOID CONTACT WITH SKIN
S 37	WEAR SUITABLE GLOVES
S 61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.
S 62	IF SWALLOWED, DO NOT INDUCE VOMITING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.
CONTAINS :	(R) - P-MENTHA-1,8-DIENE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
2: HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
16.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10	FLAMMABLE
R 11	HIGHLY FLAMMABLE
R 38	IRRITATING TO SKIN
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 65	HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : GRENADINE FLAVOR
COMMERCIAL CODE : 11039-33

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 17/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
> 50%	1,2-PROPANEDIOL	
	57-55-6	200-338-0
		OEL (mg/m3) : 470.00
1% - 5%	ISOPENTYL ACETATE	
	R 10-66	
	123-92-2	204-662-3
		OEL (mg/m3) : 270.00
0.1 - 1%	(R)-P-MENTHA-1,8-DIENE	
	Xi N R 10-38-43-50/53	
	5989-27-5	227-813-5

THE PRODUCT CONTAINS THE FOLLOWING SENSITISING INGREDIENTS CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

NAME/CAS RN/EINECS/ELINCS REGISTRATION	
3,7-DIMETHYL-2,6-OCTADIENAL (CIS-BETA & TRANS-ALPHA MIXTURE)	
5392-40-5	226-394-6
(R)-P-MENTHA-1,8-DIENE	
5989-27-5	227-813-5

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

MSDS0001
11039-33
GRENADINE FLAVOR

* : modified data
EEC2.01.17/07/2007
p.01/05

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
REQUEST

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
- TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
 - MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
 - SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.
 - TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
 - DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.
- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . GLASS CONTAINER, PLASTIC CONTAINER (PE/PA)
-

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :

- IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :

- EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
- WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
- TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :

RESPIRATORY PROTECTION :

- IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :

- THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :

- IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :

- AVOID CONTACT WITH SKIN

VENTILATION :

- PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : COLORLESS TO ALMOST COLORLESS

ODOUR/TASTE : SWEET FRUITY
VANILLA BEANS CITRUS

PHYSICAL STATUS : LIQUID
 APPEARANCE : LIQUID LOW-MEDIUM VISCOSITY, CLEAR-ALMOST CLEAR
 FLASHPOINT (°C) : 69
 SOLUBILITY IN WATER : SOLUBLE
 DENSITY LIQUID (20/20°C) : 1.038
 (20/4°C) : 1.036
 (25/25°C) : 1.035
 BULKDENSITY SOLID (KG/L) : NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
		no	GROUP RISK(S)
RID/ADR	: NOT RESTRICTED		
IMDG	: NOT RESTRICTED		
ICAO/IATA	: NOT RESTRICTED		

15 - REGULATORY INFORMATION

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
REQUEST

CONTAINS AN INGREDIENT THAT MAY PRODUCE AN
ALLERGIC REACTION:
CITRAL

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.2 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10 FLAMMABLE
R 38 IRRITATING TO SKIN
R 43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM
ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 66 REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT,
TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE
REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN
OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCU-
RACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY
FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA.
THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT
SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF
WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : LEMONADE FLAVOUR
COMMERCIAL CODE : 443-00624-00

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/001

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
> 50%	ETHANOL	
	F R 11	
	64-17-5	200-578-6
	(R)-P-MENTHA-1,8-DIENE	OEL (mg/m3) : 1000.00
5% - 10%	Xi N R 10-38-43-50/53	
	5989-27-5	227-813-5
1% - 5%	BICYCLO(3.1.1)HEPTANE, 6,6,-DIMETHYL-2-METHYLENE-	
	Xn N R 10-43-50/53-65	
	127-91-3	204-872-5
0.1 - 1%	BICYCLO(3.1.1)HEPT-2-ENE,2,6,6-TRIMETHYL-	
	Xn N R 10-43-50/53-65	
	80-56-8	201-291-9

THE PRODUCT CONTAINS THE FOLLOWING SENSITISING INGREDIENTS CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

NAME/CAS RN/EINECS/ELINCS REGISTRATION	
3,7-DIMETHYL-2,6-OCTADIENAL (CIS-BETA & TRANS- -ALPHA MIXTURE)	
5392-40-5	226-394-6
BICYCLO(3.1.1)HEPT-2-ENE,2,6,6-TRIMETHYL-	
80-56-8	201-291-9

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DEGREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

MSDS0001
443-00624-00
LEMONADE FLAVOUR* : modified data
EEC2.01.16/07/2007
p.01/05

HIGHLY FLAMMABLE
MAY CAUSE SENSITISATION BY SKIN CONTACT
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE
EFFECTS IN THE AQUATIC ENVIRONMENT

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
- TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
 - MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
 - SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.
 - TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
 - DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.
- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER
-

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :

- IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :

- EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
- WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
- TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :

RESPIRATORY PROTECTION :

- IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :

- THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :

- IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :

- AVOID CONTACT WITH SKIN

VENTILATION :

- PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS TO VERY SLIGHTLY YELLOW

ODOUR/TASTE : LEMON LIME

PHYSICAL STATUS : LIQUID
 APPEARANCE : LIQUID
 FLASHPOINT (°C) : 14
 SOLUBILITY IN WATER : SOLUBLE
 DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : 0.897
 BULKDENSITY SOLID (KG/L) : NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN no	PACK. GROUP	SUBS RISK(S)
RID/ADR	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
IMDG	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
ICAO/IATA	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		

MSDS0001
 443-00624-00
 LEMONADE FLAVOUR

* : modified data
 EEC2.01.16/07/2007
 p.04/05

15 - REGULATORY INFORMATION

Xi	IRRITANT
F	HIGHLY FLAMMABLE
N	DANGEROUS FOR THE ENVIRONMENT
R 11	HIGHLY FLAMMABLE
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
S 9	KEEP CONTAINER IN A WELL-VENTILATED PLACE
S 16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING
S 24	AVOID CONTACT WITH SKIN
S 37	WEAR SUITABLE GLOVES
S 61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.
CONTAINS :	(R) - P-MENTHA-1,8-DIENE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
2: HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
9.5 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10	FLAMMABLE
R 11	HIGHLY FLAMMABLE
R 38	IRRITATING TO SKIN
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 65	HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : NI LEMONADE FLAVOUR
COMMERCIAL CODE : 510421A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/004

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
20% - 50%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00
10% - 20%	1,2-PROPANEDIOL		
	57-55-6	200-338-0	OEL (mg/m3) : 470.00
5% - 10%	LIME OIL		
	Xn N R 10-38-43-50/53-65		
	8008-26-2	290-010-3	
1% - 5%	(R)-P-MENTHA-1,8-DIENE		
	Xi N R 10-38-43-50/53		
	5989-27-5	227-813-5	
0.1 - 1%	BICYCLO(3.1.1)HEPTANE, 6,6,-DIMETHYL-2-METHYLENE-		
	Xn N R 10-43-50/53-65		
	127-91-3	204-872-5	
0.1 - 1%	BICYCLO(3.1.1)HEPT-2-ENE,2,6,6-TRIMETHYL-		
	Xn N R 10-43-50/53-65		
	80-56-8	201-291-9	

THE PRODUCT CONTAINS THE FOLLOWING SENSITISING INGREDIENTS CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

NAME/CAS RN/EINECS/ELINCS REGISTRATION
BICYCLO(3.1.1)HEPTANE, 6,6,-DIMETHYL-2-METHYLENE-
127-91-3 204-872-5
3,7-DIMETHYL-2,6-OCTADIENAL (CIS-BETA & TRANS-
-ALPHA MIXTURE)
5392-40-5 226-394-6
BICYCLO(3.1.1)HEPT-2-ENE,2,6,6-TRIMETHYL-
80-56-8 201-291-9

MSDS0001
510421A
NI LEMONADE FLAVOUR

* : modified data
EEC2.01.16/07/2007
p.01/06

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DEGREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

FLAMMABLE
MAY CAUSE SENSITISATION BY SKIN CONTACT
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING
SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE
THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE
HANDLED.
TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH,
OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS
SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.
 - 2 - STORAGE :
 - . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN
A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER
-

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE
POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT
NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS,
THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE
REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
 PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF
 NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
 APPEARANCE : LIQUID

FLASHPOINT (°C) : 25

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : NOT DETERMINED

BULKDENSITY SOLID (KG/L) : NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN no	PACK. GROUP	SUBS RISK(S)
RID/ADR	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		
IMDG	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		
ICAO/IATA	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		

15 - REGULATORY INFORMATION

N	DANGEROUS FOR THE ENVIRONMENT
Xn	HARMFUL
R 10	FLAMMABLE
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 65	HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.
S 24	AVOID CONTACT WITH SKIN
S 37	WEAR SUITABLE GLOVES
S 61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.
S 62	IF SWALLOWED, DO NOT INDUCE VOMITING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.
CONTAINS :	(R) - P-MENTHA-1,8-DIENE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
2: HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
11.7 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10	FLAMMABLE
R 11	HIGHLY FLAMMABLE
R 38	IRRITATING TO SKIN
R 43	MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 65	HARMFUL : MAY CAUSE LUNG DAMAGE IF SWALLOWED.

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : ORANGE FLAVOUR NATURAL
COMMERCIAL CODE : 510432A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
10% - 20%	1,2-PROPANEDIOL	
	57-55-6	200-338-0
		OEL (mg/m3) : 470.00
1% - 5%	(R)-P-MENTHA-1,8-DIENE	
	Xi N R 10-38-43-50/53	
	5989-27-5	227-813-5

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

MAY CAUSE SENSITISATION BY SKIN CONTACT
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

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ORANGE FLAVOUR NATURAL

* : modified data
EEC2.01.16/07/2007
p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : PALE YELLOW TO PALE GREEN

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
APPEARANCE : EMULSION

FLASHPOINT (°C) : > 65
CLOSED CUP

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : NOT DETERMINED
 BULKDENSITY SOLID (KG/L) : NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
RID/ADR	: NOT RESTRICTED	no	GROUP RISK(S)
IMDG	: NOT RESTRICTED		
ICAO/IATA	: NOT RESTRICTED		

15 - REGULATORY INFORMATION

N DANGEROUS FOR THE ENVIRONMENT
Xi IRRITANT
R 43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R 51/53 TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
S 24 AVOID CONTACT WITH SKIN
S 37 WEAR SUITABLE GLOVES
S 61 AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.
CONTAINS : (R) - P-MENTHA-1,8-DIENE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
2: HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
8.7 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10 FLAMMABLE
R 38 IRRITATING TO SKIN
R 43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 51/53 TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : PASSIONFRUIT FLAVOUR
COMMERCIAL CODE : 809-00056-02

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/001

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
20% - 50%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON REQUEST

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE DAMAGE PERSISTS.

MSDS0001
809-00056-02
PASSIONFRUIT FLAVOUR

* : modified data
EEC2.01.16/07/2007
p.01/05

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING
SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE
THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE
HANDLED.
TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH,
OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS
SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS

ODOUR/TASTE : SULFURY FRUITY

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID

FLASHPOINT (°C) : 86

SOLUBILITY IN WATER : FREELY SOLUBLE

DENSITY LIQUID (20/20°C): NOT DETERMINED
(20/4°C) : NOT DETERMINED
(25/25°C): 0.994

BULKDENSITY SOLID (KG/L): NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
NO DATA AVAILABLE.

MATERIALS TO AVOID :
NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
(SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
		no	GROUP RISK(S)
RID/ADR	: NOT RESTRICTED		
IMDG	: NOT RESTRICTED		
ICAO/IATA	: NOT RESTRICTED		

15 - REGULATORY INFORMATION

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
REQUEST

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 11 HIGHLY FLAMMABLE

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : PEACH NI FLAVOUR
COMMERCIAL CODE : 510389A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
> 50%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00
10% - 20%	1,2-PROPANEDIOL		
	57-55-6	200-338-0	OEL (mg/m3) : 470.00
1% - 5%	ACETALDEHYDE		
	F+ Xn R 12-36/37-40		
	75-07-0	200-836-8	OEL (mg/m3) : 180.00
0.1 - 1%	UNDECAN-4-OLIDE; 2(3H)-FURANONE, 5-HEPTYLDIHYDRO-		
	N R 51/53		
	104-67-6	203-225-4	

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

HIGHLY FLAMMABLE
LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.

MSDS0001
510389A
PEACH NI FLAVOUR

* : modified data
EEC2.01.16/07/2007
p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
APPEARANCE : LIQUID

FLASHPOINT (°C) : 17

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : NOT DETERMINED
 BULKDENSITY SOLID (KG/L) : NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK.	SUBS
		no	GROUP	RISK(S)
RID/ADR	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
IMDG	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
ICAO/IATA	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		

15 - REGULATORY INFORMATION

Xn HARMFUL
 F HIGHLY FLAMMABLE
 R 11 HIGHLY FLAMMABLE
 R 40 LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.
 S 9 KEEP CONTAINER IN A WELL-VENTILATED PLACE
 S 16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING
 S 36/37 WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES
 CONTAINS : ACETALDEHYDE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
 1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
 0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
 R 11 HIGHLY FLAMMABLE
 R 12 EXTREMELY FLAMMABLE
 R 36/37 IRRITATING TO EYES AND RESPIRATORY SYSTEM
 R 40 LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.
 R 51/53 TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : PINK GRAPEFRUIT FLAVOUR
COMMERCIAL CODE : 55641AA

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 17/07/2007 REVISION : 0005/004

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
> 50%	ETHANOL	
	F R 11	
	64-17-5	200-578-6
		OEL (mg/m3) : 1000.00
20% - 50%	1,2-PROPANEDIOL	
	57-55-6	200-338-0
		OEL (mg/m3) : 470.00
5% - 10%	MULTI-COMPONENT MIXTURE	
	F Xi R 11-43-52/53	
1% - 5%	(R)-P-MENTHA-1,8-DIENE	
	Xi N R 10-38-43-50/53	
	5989-27-5	227-813-5

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT
CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER
THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

FLAMMABLE
MAY CAUSE SENSITISATION BY SKIN CONTACT
HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM
ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

MSDS0001
55641AA
PINK GRAPEFRUIT FLAVOUR

* : modified data
EEC2.01.17/07/2007
p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS TO PALE YELLOW

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID LOW-MEDIUM VISCOSITY, CLEAR

FLASHPOINT (°C) : 27
CLOSED CUP

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : 0.880
 BULKDENSITY SOLID (KG/L) : NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK.	SUBS
		no	GROUP	RISK(S)
RID/ADR	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	
IMDG	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	
ICAO/IATA	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	

15 - REGULATORY INFORMATION

Xi IRRITANT
R 10 FLAMMABLE
R 43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R 52/53 HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM
 ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
S 24 AVOID CONTACT WITH SKIN
S 37 WEAR SUITABLE GLOVES
CONTAINS : (R) - P-MENTHA-1,8-DIENE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
2.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 10 FLAMMABLE
R 11 HIGHLY FLAMMABLE
R 38 IRRITATING TO SKIN
R 43 MAY CAUSE SENSITISATION BY SKIN CONTACT
R 50/53 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM
 ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
R 52/53 HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM
 ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : PLUM NI FLAVOUR
COMMERCIAL CODE : 510410A

INTENDED USE :

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/001

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH,
ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
> 50%	1,2-PROPANEDIOL	
	57-55-6	200-338-0
		OEL (mg/m3) : 470.00

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT
CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER
THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
REQUEST

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

MSDS0001
510410A
PLUM NI FLAVOUR

* : modified data
EEC2.01.16/07/2007
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IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING
SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE
THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE
HANDLED.
TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH,
OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS
SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : PINK TO PALE PINK

ODOUR/TASTE : NOT AVAILABLE

PHYSICAL STATUS : NOT DETERMINED
APPEARANCE : LIQUID

FLASHPOINT (°C) : 65

SOLUBILITY IN WATER : NOT DETERMINED

DENSITY LIQUID (20/20°C): NOT DETERMINED
(20/4°C) : NOT DETERMINED
(25/25°C): NOT DETERMINED
BULKDENSITY SOLID (KG/L): NOT DETERMINED

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
NO DATA AVAILABLE.

MATERIALS TO AVOID :
NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
(SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK. SUBS
		no	GROUP RISK(S)
RID/ADR	: NOT RESTRICTED		
IMDG	: NOT RESTRICTED		
ICAO/IATA	: NOT RESTRICTED		

15 - REGULATORY INFORMATION

PREPARATION NOT CLASSIFIED AS DANGEROUS ACCORDING
TO EUROPEAN DIRECTIVE 99/45 AND ITS ADAPTATIONS
SAFETY DATA SHEET AVAILABLE FOR PROFESSIONAL USER ON
REQUEST

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : POMEGRANATE FLAVOUR
COMMERCIAL CODE : 445-00228-01

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 17/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
> 50%	1,2-PROPANEDIOL		
	57-55-6	200-338-0	OEL (mg/m3) : 470.00
5% - 10%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

FLAMMABLE

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE DAMAGE PERSISTS.

MSDS0001
445-00228-01
POMEGRANATE FLAVOUR

* : modified data
EEC2.01.17/07/2007
p.01/05

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING
SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE
THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE
HANDLED.
TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH,
OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS
SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : REDDISH BROWN

ODOUR/TASTE : AROMATIC FRAGRANT

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID LOW-MEDIUM VISCOSITY, CLEAR-ALMOST CLEAR

FLASHPOINT (°C) : 40

SOLUBILITY IN WATER : SLIGHTLY SOLUBLE

DENSITY LIQUID (20/20°C): NOT DETERMINED
(20/4°C) : NOT DETERMINED
(25/25°C): 1.018

BULKDENSITY SOLID (KG/L): NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
NO DATA AVAILABLE.

MATERIALS TO AVOID :
NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
(SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN no	PACK. GROUP	SUBS RISK(S)
RID/ADR	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		
IMDG	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		
ICAO/IATA	: 3	1197	III	
	EXTRACTS, FLAVOURING,	LIQUID		

15 - REGULATORY INFORMATION

R 10 FLAMMABLE

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 10 FLAMMABLE
R 11 HIGHLY FLAMMABLE

DISCLAIMER

THE INFORMATION AND RECOMMENDATION CONTAINED IN THE DATA SHEET REPRESENT, TO THE BEST OF GIVAUDAN'S KNOWLEDGE AND BELIEF, AN ACCURATE AND RELIABLE REPRESENTATION AS TO THE KNOWN DATA FOR THIS MATERIAL. THE DATA HAS BEEN OBTAINED FROM A NUMBER OF SOURCES AND GIVAUDAN CANNOT GUARANTEE ITS ACCURACY, RELIABILITY AND COMPLETENESS NOR CAN GIVAUDAN ASSUME ANY LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE USE OF THESE DATA. THIS MSDS IS OUR ASSESSMENT OF THE HAZARDS ASSOCIATED WITH THE PRODUCT SUPPLIED. THE USER IS LEGALLY BOUND TO MAKE HIS OWN ASSESSMENT OF WORKPLACE RISK.

ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : RASPBERRY APPLE FLAVOUR
COMMERCIAL CODE : 445-00266-03

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/001

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
20% - 50%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00
20% - 50%	GLYCEROL		
	56-81-5	200-289-5	OEL (mg/m3) : 10.00
1% - 5%	ISOPENTYL ACETATE		
	R 10-66		
	123-92-2	204-662-3	OEL (mg/m3) : 270.00
1% - 5%	ETHYL ACETATE		
	F Xi R 11-36-66-67		
	141-78-6	205-500-4	OEL (mg/m3) : 550.00
1% - 5%	ISOBUTYL ACETATE		
	F R 11-66		
	110-19-0	203-745-1	OEL (mg/m3) : 950.00

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT
CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER
THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

HIGHLY FLAMMABLE

MSDS0001
445-00266-03
RASPBERRY APPLE FLAVOUR

* : modified data
EEC2.01.16/07/2007
p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS TO PALE YELLOW

ODOUR/TASTE : RASPBERRY ESTERY

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID LOW VISCOSITY, CLEAR

FLASHPOINT (°C) : 10

SOLUBILITY IN WATER : FREELY SOLUBLE

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : 0.973
 BULKDENSITY SOLID (KG/L) : NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK.	SUBS
		no	GROUP	RISK(S)
RID/ADR	: 3	1197	II	
	EXTRACTS, FLAVOURING,		LIQUID	
IMDG	: 3	1197	II	
	EXTRACTS, FLAVOURING,		LIQUID	
ICAO/IATA	: 3	1197	II	
	EXTRACTS, FLAVOURING,		LIQUID	

15 - REGULATORY INFORMATION

F	HIGHLY FLAMMABLE
R 11	HIGHLY FLAMMABLE
S 9	KEEP CONTAINER IN A WELL-VENTILATED PLACE
S 16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES

R 10	FLAMMABLE
R 11	HIGHLY FLAMMABLE
R 36	IRRITATING TO EYES
R 66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING
R 67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS

DISCLAIMER

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ON REQUEST THIS DOCUMENT IS ALSO AVAILABLE IN OTHER EU LANGUAGES.

SAFETY DATA SHEET

IN COMPLIANCE WITH EC DIRECTIVE 91/155/EEC AND ITS ADAPTATIONS (2001/58/EC)

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

COMMERCIAL NAME : TROPICAL FRUIT BLEND FLAVOUR
COMMERCIAL CODE : 443-00614-00

INTENDED USE : FLAVOURING FOR FOODSTUFFS

GIVAUDAN CONTACT POINT :
Givaudan Australia Pty Ltd 61 2 9395 1700
9, Carolyn Street,
Silverwater
N.S.W.2128
Australia

PRINTING DATE : 16/07/2007 REVISION : 0005/002

2 - COMPOSITION/INFORMATION ON INGREDIENTS

THIS PRODUCT IS A MIXTURE OF SUBSTANCES. WHERE RELEVANT THIS PARAGRAPH GIVES AN OVERVIEW OF MATERIALS IN ACCORDANCE WITH THE EC-DIRECTIVE.

THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL	
20% - 50%	ETHANOL F R 11 64-17-5	200-578-6 OEL (mg/m3) : 1000.00
1% - 5%	2-HYDROXY-PROPANOIC ACID; LACTIC ACID Xi R 38-41 50-21-5	200-018-0

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

HIGHLY FLAMMABLE

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE DAMAGE PERSISTS.

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* : modified data
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IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

HAZARDOUS DECOMPOSITION PRODUCTS :
NO DATA AVAILABLE.

SPECIAL MEASURES FOR FIRE FIGHTING :
AVOID INHALATION OF VAPOURS.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
CLOSED CONTAINERS MAY BUILD UP PRESSURE AT ELEVATED
TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING
SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE
THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING.
SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE
HANDLED.
TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH,
OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION.
DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS
SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
 - . TO BE STORED IN TIGHTLY SEALED AN PREFERABLY FULL CONTAINERS IN A COOL, DRY AND VENTILATED LOCATION. PROTECT FROM LIGHT.
 - . STORE IN ORIGINAL CONTAINER

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

ENGINEERING CONTROLS :
EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION.
WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT.
TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
RESPIRATORY PROTECTION :
IN WELL VENTILATED AREAS RESPIRATION PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED OR POORLY VENTILATED AREAS, THE USE OF AN APPROPRIATE RESPIRATORY PROTECTION MAY BE REQUIRED.

HAND PROTECTION :
THE USE OF NITRILE GLOVES IS RECOMMENDED.

EYE PROTECTION :
IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED.

SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS TO VERY SLIGHTLY YELLOW

ODOUR/TASTE : FRUITY TROPICAL FRUIT

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID

FLASHPOINT (°C) : 9

SOLUBILITY IN WATER : SOLUBLE

DENSITY LIQUID (20/20°C): NOT DETERMINED
(20/4°C) : NOT DETERMINED
(25/25°C): 0.924

BULKDENSITY SOLID (KG/L): NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
NO DATA AVAILABLE.

MATERIALS TO AVOID :
NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
(SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN no	PACK. GROUP	SUBS RISK(S)
RID/ADR	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
IMDG	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		
ICAO/IATA	: 3	1197	II	
	EXTRACTS, FLAVOURING,	LIQUID		

15 - REGULATORY INFORMATION

F	HIGHLY FLAMMABLE
R 11	HIGHLY FLAMMABLE
S 9	KEEP CONTAINER IN A WELL-VENTILATED PLACE
S 16	KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING

16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 11 HIGHLY FLAMMABLE
R 38 IRRITATING TO SKIN
R 41 RISK OF SERIOUS DAMAGE TO EYES

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THESE ARE THE INGREDIENTS THAT ARE SIGNIFICANT FOR HEALTH, ENVIRONMENT AND SAFETY RELEVANT TO THIS PRODUCT :

Q.TY %	NAME, HAZARD AND/OR CAS/EINECS RN, OEL		
20% - 50%	ETHANOL		
	F R 11		
	64-17-5	200-578-6	OEL (mg/m3) : 1000.00
10% - 20%	1,2-PROPANEDIOL		
	57-55-6	200-338-0	OEL (mg/m3) : 470.00
1% - 5%	2-HYDROXY-PROPANOIC ACID; LACTIC ACID		
	Xi R 38-41		
	50-21-5	200-018-0	

THERE AREN'T ANY SENSITISING INGREDIENTS IN THIS PRODUCT CLASSIFIED AS R43 IN CONCENTRATION BETWEEN 0.1 AND LOWER THAN 1%

3 - HAZARDS IDENTIFICATION

THE PRODUCT MAY DECREASE THE SKIN AND BE IRRITATING TO SENSITIVE INDIVIDUALS. THE MATERIAL IS NOT INTENDED FOR DIRECT CONSUMPTION.

FLAMMABLE

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TROPICAL FRUIT BLEND FLAVOUR

* : modified data
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p.01/05

4 - FIRST-AID MEASURES

IN THE EVENT OF EYE CONTACT :
IRRIGATE COPIOUSLY WITH WATER FOR AT LEAST 15 MINUTES.
OBTAIN MEDICAL ADVICE IF IRRITATION OR EVIDENCE OF TISSUE
DAMAGE PERSISTS.

IN THE EVENT OF SKIN CONTACT :
WASH WITH LARGE QUANTITIES OF WATER (OR WATER + SOAP).
REMOVE CONTAMINATED CLOTHES. IF IRRITATION PERSISTS OR ANY
SIGN OF TISSUE DAMAGE IS APPARENT, OBTAIN MEDICAL ADVICE.

IN THE EVENT OF INGESTION :
RINSE MOUTH WITH WATER. OBTAIN IMMEDIATE MEDICAL ADVICE.
DO NOT INDUCE VOMITING.

IN THE EVENT OF EXCESSIVE INHALATION :
REMOVE THE PERSON TO FRESH AIR AND KEEP AT REST.
OBTAIN MEDICAL ADVICE IMMEDIATELY.

5 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
RECOMMENDED : CARBON DIOXIDE, SPECIAL LIQUID OR DRY POWDER
EXTINGUISHERS.
USABLE : FOAM EXTINGUISHERS.
INADVISABLE : DIRECT WATER JET.

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NO DATA AVAILABLE.

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TEMPERATURES.
IF POSSIBLE, CONTAINERS SHOULD BE COOLED WITH A WATER SPRAY.

6 - ACCIDENTAL RELEASE MEASURES

TO AVOID A POSSIBLE CONTAMINATION OF THE ENVIRONMENT,
CONTAIN SPILLED MATERIAL. COVER WITH AN INERT, INORGANIC,
NON-COMBUSTIBLE ABSORBENT MATERIAL, SWEEP UP AND REMOVE TO
AN APPROVED DISPOSAL CONTAINER.
AVOID OPEN FLAMES OR OTHER SOURCES OF IGNITION.
AVOID INHALATION OF VAPORS.

7 - HANDLING AND STORAGE

- 1 - HANDLING :
TREAT CONTAINERS WITH RESPECT TO AVOID DAMAGE.
-

MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. THIS SHOULD INCLUDE THE WEARING OF EYESHIELDS AND PROTECTIVE CLOTHING. SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE THEY ARE HANDLED.

TO AVOID FIRE HAZARDS, PRODUCTS SHOULD NOT BE HEATED WITH, OR EXPOSED TO OPEN FLAMES OR OTHER SOURCES OF IGNITION. DURING THE INTRODUCTION INTO THE FINAL PRODUCT, INGREDIENTS SHOULD BE NORMALLY KEPT AT RELATIVELY LOW TEMPERATURES.

- 2 - STORAGE :
- . STORE SEPERATELY FROM OXIDISING MATERIALS.
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8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INDUSTRIAL HYGIENE :
IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL PRACTICES.

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EXTRACT DUST OR VAPOUR AT POINT OF EMISSION. AVOID ATOMISATION. WHEN PROCESSED USE CLOSED AND EXPLOSIONPROOF ELECTRICAL EQUIPMENT. TAKE PRECAUTIONS TO AVOID BUILD-UP OF ELECTROSTATIC CHARGES WHILE POURING, PNEUMATIC TRANSPORT ETC.

PERSONAL PROTECTIVE EQUIPMENT :
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SKIN PROTECTION :
AVOID CONTACT WITH SKIN

VENTILATION :
PROVIDE ADEQUATE VENTILATION; USE LOCAL EXHAUST FAN IF NECESSARY

REFER TO SECTION 2 FOR THE OCCUPATIONAL EXPOSURE LIMITS

9 - PHYSICAL AND CHEMICAL PROPERTIES

COLOUR : ALMOST COLORLESS TO VERY SLIGHTLY YELLOW

ODOUR/TASTE : TROPICAL FRUIT FRUITY

PHYSICAL STATUS : LIQUID
APPEARANCE : LIQUID

FLASHPOINT (°C) : 29

SOLUBILITY IN WATER : SOLUBLE

DENSITY LIQUID (20/20°C) : NOT DETERMINED
 (20/4°C) : NOT DETERMINED
 (25/25°C) : 0.946
 BULKDENSITY SOLID (KG/L) : NOT APPLICABLE

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID :
 EXCESSIVE HEAT, OPEN FLAMES OR OTHER SOURCES OF IGNITION.

REACTIVITY :
 NO DATA AVAILABLE.

MATERIALS TO AVOID :
 NOT DETERMINED

11 - TOXICOLOGICAL INFORMATION

NO TOXICOLOGICAL TEST DATA ARE AVAILABLE FOR THIS MULTI-COMPONENT MIXTURE.
 RISK ASSESSMENT IS BASED ON THE HAZARDS OF THE INDIVIDUAL COMPONENTS
 (SEE ALSO SECTIONS 3 AND 15).

12 - ECOLOGICAL INFORMATION

THERE ARE NO ENVIRONMENTAL IMPACT DATA AVAILABLE FOR THIS MIXTURE.

13 - DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS
 PREVENT CONTAMINATION OF SOIL, GROUND AND SURFACE WATER.

14 - TRANSPORT INFORMATION

	CLASS	UN	PACK.	SUBS
		no	GROUP	RISK(S)
RID/ADR	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	
IMDG	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	
ICAO/IATA	: 3	1197	III	
	EXTRACTS, FLAVOURING,		LIQUID	

15 - REGULATORY INFORMATION

R 10 FLAMMABLE

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16 - OTHER INFORMATION

WASSERGEFAERDUNGSKLASSE - WGK (GERMANY) :
1: SLIGHTLY HAZARDOUS TO WATER

HYDROCARBON-CONTENT % :
0.0 (RELEVANT TO LIQUIDS)

GLOSSARY OF RISK PHRASES
R 10 FLAMMABLE
R 11 HIGHLY FLAMMABLE
R 38 IRRITATING TO SKIN
R 41 RISK OF SERIOUS DAMAGE TO EYES

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4. FIRST AID MEASURES

- General advice : Take Risk and Safety phrases (section 15) into account.
- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate vent spillages should be contained by use of sand or inert powder and disposed

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

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If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Advice : Where appropriate, use closed systems to transfer and process this material
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls

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are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

- Hand protection : Avoid skin contact. Use chemically resistant gloves.
- Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Components with workplace control parameters

We are not aware of any national exposure limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

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Physical state : liquid
Colour : off-white to cream

Safety data

Flash point : > 100.0 °C
Vapour pressure : Note: not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/EC (see sections 3 and 15).

12. ECOLOGICAL INFORMATION

There is no data available for this product. The environmental hazards are assessed based on the ingredients in this preparation and their concentrations according to the conventional method of Directive 99/45/ EC (see sections 3 and 15).

13. DISPOSAL CONSIDERATIONS

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

14. TRANSPORT INFORMATION

ADG
Not dangerous goods

ADR

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UN-Number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(D-LIMONENE, ALPHA-PINENE)
Class : 9
Packaging group : III

IATA

Not dangerous goods

IMDG GLOBAL

Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives

Additional Info : Not a hazardous substance or preparation according to EC-directives
67/548/EEC or 1999/45/EC.

Special labelling of certain preparations : Safety datasheet available on request for professional users.
Lemon, ext.
Lime (Citrus aurantifolia), ext.

Sensitising components : citral
May produce an allergic reaction.

National regulatory information

Standard for the Uniform : No poison schedule number allocated
Scheduling of Drugs and
Poisons.

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a

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INTERNATIONAL FLAVORS & FRAGRANCES

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safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

End of Safety Data Sheet

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