



MATERIAL SAFETY DATA SHEET

PRODUCT: ISOPROPYL ALCOHOL

Date of Issue: May 2013

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Isopropyl Alcohol
Recommended Use: Solvent
Company: Glendale Packaging Pty Ltd
Address: Unit 1/75 Newton Road, Wetherill Park NSW 2164
Telephone Number: (02) 9756 2315
Emergency Telephone: (02) 9756 2315

2. HAZARDOUS IDENTIFICATION

Hazardous Classification: Hazardous substance according to the criteria of NOHSC.
Dangerous goods classification according to the Australian Dangerous Goods Code.

Risk Phase(s): R11 – Highly flammable
R36 – Irritating to eyes

Safety Phase(s): S7 – Keep container tightly closed
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

Other Information: Hazards Identification:
Health Hazards: Irritating to eyes
Physical and Chemical Hazards/Fire and Explosion
Hazards: Extreme hazard. Leaks of gas or spills of liquid can readily form flammable mixtures at temperatures at or above the flash point.



3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition: Chemical Name: Oxygenated Hydrocarbons

Ingredients:	Name:	CAS No:	Proportion (w/w):
	Propan-2-Ol (Isopropyl Alcohol)	67-63-0	100%

4. FIRST AID MEASURES

Inhalation:

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

Ingestion:

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

Skin:

Immediately flush with large amounts of water – use soap if available. Remove contaminated clothing, including shoes, after flushing has begun.

Eye:

Immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.

5. FIRE FIGHTING MEASURES

Hazards from Combustion Products:

No unusual.

Specific Methods:

Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off “fuel” to fire. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect men attempting to stop a leak. Either allow fire to burn under controlled conditions or extinguish with alcohol type foam or dry chemical. Try to cover liquid spills with foam. Spill fires may be extinguished by flooding with large amounts of water. SPECIAL FIRE PRECAUTIONS: See also Section FIRST AID as well as Section OTHER PROPERTIES (STABILITY).

Hazchem Code:

[Y]E



6. ACCIDENTAL RELEASE MEASURES

Other Information:

LAND SPILL: Eliminate sources of ignition. Warn occupants of downwind areas of fire and explosion hazard. Prevent liquid from entering sewers, watercourses, or low areas. Keep public away. Shut off source if possible to do so without hazard. Advise police if substance has entered a watercourse of sewer or has contaminated soil or vegetation. Take measures to minimize the effect on the ground water. Contact spilled liquid with sand or earth. Dilute contained spill with water. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. If liquid is too viscous for pumping, scrape up with shovels or pails and place in suitable containers for recycle or disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. See Section FIRST AID as well and Section OTHER PROPERTIES (STABILITY).

WATER SPILL: Eliminate sources of ignition. Warn occupants and shipping in downwind areas of fire and explosion hazard and request them to stay clear. Hose over spill area to effect dilution of water-soluble materials. Consult an expert on disposal of any recovered material and ensure conformity to local disposal regulations. See also Section FIRST AID and Section OTHER PROPERTIES (STABILITY).

7. HANDLING AND STORAGE

Conditions for Safe Storage:

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated place away from incompatible materials. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. This material is not a static accumulator, but use proper grounding procedures. Do NOT pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

Storage Temperatures:

Ambient.

Store Pressure:

Atmospheric.

Recommended Materials:

Inorganic zinc coatings, epoxy phenolic coatings, vinyl coatings, carbon steel, stainless steel, copper bronze, polyethylene, Teflon, polyester.



Unsuitable Materials:

Aluminium, cast iron, monel, butyl rubber, EPDM.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:

Substance	STEL mg/m ³	STEL ppm	TWA mg/m ³	TWA ppm
Propan-2-Ol (Isopropyl Alcohol)	1230	500	983	400

Other Exposure Information:

The exposure standard of isopropanol established by the Australian National Occupations Health and Safety Commission (NOHSC) is listed above.

Engineering Controls:

The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures or otherwise to maintain ambient concentration below the recommended. Use explosion-proof ventilation equipment.

Personal Protective Equipment:

For open systems where contact is likely, wear long sleeves, chemical resistant gloves, and chemical goggles. Where contact may occur, wear safety glasses with side shields. Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, approved respirators (AS/NZS 1715 and AS/NZS 1716) may be necessary to prevent overexposure by inhalation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colourless liquid
Melting Point:	-88.90°C
Boiling Point:	82.1 – 82.5°C
Solubility in Water:	(20°C): 100%
Specific Gravity:	(20/20): 0.786 g/cm ³
Vapour Pressure:	(55°C): 30.6kPa (55°C): 30.6kPa (20°C): 4.4 kPa
Vapour Density:	(1013 kP/air=1):>1.00
Evaporation Rate:	(n-Bu Acetate=1): 2.500
Coefficient Water/Oil Distr:	(Liq.): 0.00107°C



Viscosity:	(25°C): 2.08 cSt
Volatile Component:	100%
Flash Point:	12°C
Auto Ignition Temperature:	>350°C
Flammable Limits – Lower:	1.8%
Flammable Limits – Upper:	12%
Molecular Weight:	60
Other Information:	Is Material Hygroscopic: No Heat of Vapourisation: 158.00 cal/g

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal use conditions.

Incompatible Materials:

Caustics, amines, alkanolamines, aldehydes, strong oxidizing agents and chlorinated compounds.

Hazardous Decomposition Products:

None known.

Hazardous Polymerization:

No.

11. TOXICOLOGICAL INFORMATION

Inhalation:

Vapour concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness could be anesthetic and may have other central nervous system effects. Negligible hazard at ambient temperature (-18 to 38°C).

Ingestion:

Minimal toxicity. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.

Skin:

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Low order of toxicity.

**Eye:**

Irritating and will injure eye tissue if not removed promptly.

Chronic Effects:

In developmental toxicity studies conducted by the US Chemical Manufacturers Association, unexpected acute toxicity was found when Isopropanol was administered to pregnant rats exposed in the same study. In the rats there were some relatively mild development effects at maternally toxic levels. There was no evidence of developmental toxicity in the rats at levels, which did not also produce maternal toxicity.

There were no indications of developmental toxicity in the rabbits at any exposure level. Findings from a multigenerational oral reproduction study indicate that infant and immature rats are more sensitive than their parents to the acute oral toxicity induced by high (1000 mg/kg/day) doses of Isopropanol. The effect levels for rats and rabbits were at several times the maximum exposure that would occur at the TLV.

12. ECOLOGICAL INFORMATION

Environment Protection:

ENVIRONMENTAL MOBILITY: This substance is water-soluble and is expected to remain primarily in water.

ENVIRONMENTAL DEGRADABILITY: This substance biodegrades rapidly and is "readily" biodegradable according to OECD guidelines.

ECOTOXICITY AND BIOACCUMULATION: Low acute toxicity to aquatic organisms is expected. Long-term adverse effects to aquatic organisms are not expected.

13. DISPOSAL CONSIDERATIONS

Waste Disposal:

The following advice only applies to the product as supplied. Combination with other materials may well indicate another route of disposal. If in doubt, contact local Exxon Chemical supplier or Local Authorities. Empty drums should be taken for recycling, recovery or disposal through a suitably qualified licensed contractor. Care should in any case be taken to ensure compliance with national and local regulations. This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, and natural streams or rivers. This product is ash less and can be burned directly in appropriate equipment.



14. TRANSPORT INFORMATION

Transport Information:

This material is 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
- (Class 2.3) Toxic Gases
- (Class 4.2) Spontaneously Combustible Substances
- (Class 5.1) Oxidising Agents
- (Class 5.2) Organic Peroxides
- (Class 6) Toxic Substances (where the flammable liquid is nitro methane)
- (Class 7) Radioactive Substances

TEMPERATURE: Ambient

LOADING/UNLOADING TEMPERATURE: Ambient

TRANSPORT PRESSURE: Atmospheric

USUAL SHIPPING CONTAINERS: Tankers, tank cars, tank trucks, barges, drums

U.N Number: 1219
Proper Shipping Name: Isopropanol (Isopropyl Alcohol)
DG Class: 3
Hazchem Code: 2[Y]E
Packaging Method: 3.8.3RT1
Packing Group: II
EPG Number: 3A1
IERG Number: 16

15. REGULATORY INFORMATION

Regulatory Information: CLASSIFICATION AND LABELLING ACCORDING TO NOHSC CODES
CLASSIFICATION/SYMBOL: Highly flammable/F
CLASSIFICATION/SYMBOL: Irritant/Xi
GOVERNING DIRECTIVE: National Code of Practice for the Labeling of Hazardous Substances
LABEL NAME: Propan-2-OI (Isopropyl Alcohol)

Poisons Schedule: Not Scheduled
Hazard Category: Irritant, Highly Flammable



16. OTHER INFORMATION

References: (1) National Code of Practice for the preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011 (2003)], (2) material Safety Data Sheet for Isopropyl Alcohol issued by APS Specialty Chem dated April 2002.

Contact Point: Director

Telephone: (02) 9756 2315

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END OF MSDS
