

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** ISO PROPANOL (CSR)

**Synonyms** 2-PROPANOL, DIMETHYLCARBINOL, IPA, ISOHOL, ISOPROPYL ALCOHOL, PROPAN-2-OL.

**Uses** SOLVENT, PRINTING INDUSTRY.

**Supplier Name** CSR DISTILLERIES OPERATIONS PTY LIMITED (ABN 85 009 660 191)

**Address** 265 Whitehall Street, Yarraville Victoria, 3013, Australia

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**Emergency** Working hours: (03) 9283 4506; After hours 1800 627 252

## 2. HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**

**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**Risk And Safety Phrases** Risk and Safety Phrases are standardised phrases allocated to Hazardous Substances. Risk phrases convey a general description of the physicochemical, environmental and health hazards of a substance. Safety phrases provide information on safe storage, handling, disposal, personal protection and first aid.

### RISK PHRASES

R11 Highly flammable.

R20/22 Harmful by inhalation and if swallowed.

R36/38 Irritating to eyes and skin.

### SAFETY PHRASES

S16 Keep away from sources of ignition - No smoking.

S25 Avoid contact with eyes.

S43 In case of fire use only the recommended extinguishing agents.

S7 Keep container tightly closed.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
ISOPROPYL ALCOHOL	C3-H8-O	100%	67-63-0

## 4. FIRST AID MEASURES

**Eye** Flush gently with running water. Seek medical attention if irritation develops.

**Inhalation** If exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

**Skin** Remove contaminated clothing and gently flush affected areas with water. Seek medical attention if irritation develops. Launder clothing before reuse.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor. If swallowed, do not induce vomiting.

**Advice To Doctor** Treat symptomatically.

**Colour  
Rating  
AMBER**

## 5. FIRE FIGHTING MEASURES

**Flammability** Highly flammable. Vapours may form explosive mixtures with air. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones etc. when handling. Earth containers when dispensing fluids.

**Fire and Explosion** Highly flammable - explosive vapour. Evacuate area and contact emergency services. Toxic gases may be evolved when heated. Remain upwind and notify those downwind of hazard. Wear full protective equipment (see spill above) including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**Extinguishing** Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways, absorb runoff with sand or similar.

**Hazchem Code** 2[Y]E

## 6. ACCIDENTAL RELEASE MEASURES

**Spillage** If spilt (bulk), contact emergency services if appropriate. Wear splash-proof goggles, neoprene/nitrile gloves, a Type A (Organic vapour) respirator (where inhalation risk exists), coveralls, an apron and boots. Ventilate and clear area of all unprotected personnel. Absorb spill with sand or similar and place in clean, sealed containers for disposal.

## 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. Remove contaminated clothing and protective equipment before entering eating areas.

**Storage** Store in cool, dry, well ventilated area, removed from oxidising agents, acids, active metals, direct sunlight, heat sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should be banded and have appropriate ventilation systems.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation** Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

**Exposure Standards** ISOPROPYL ALCOHOL (67-63-0)  
ES-TWA : 400 ppm (983 mg/m<sup>3</sup>)  
ES-STEL : 500 ppm (1230 mg/m<sup>3</sup>)  
WES : 400 ppm (983 mg/m<sup>3</sup>)

**PPE** Wear neoprene or nitrile gloves, splash-proof goggles and coveralls. Where an inhalation risk exists, wear a Type A (Organic vapour) Respirator. At high vapour levels, wear an Air-line respirator or Self Contained Breathing Apparatus (SCBA). If spraying, wear a Type A-Class P1 (Organic vapour and Particulate) Respirator.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** CLEAR COLOURLESS LIQUID  
**Odour:** SLIGHT ALCOHOL ODOUR  
**pH:** NOT AVAILABLE  
**Vapour Pressure:** 33 mm Hg @ 20 C  
**Vapour Density:** > 1 (Air = 1)  
**Boiling Point:** 82.4 C  
**Melting Point:** -89.5 C  
**Evaporation Rate:** NOT AVAILABLE  
**Solubility (water):** SOLUBLE  
**Specific Gravity:** 0.79  
**% Volatiles:** 100 %  
**Flammability:** HIGHLY FLAMMABLE  
**Flash Point:** 12 C  
**Upper Explosion Limit:** 12.0 %  
**Lower Explosion Limit:** 2.0 %  
**Autoignition Temperature:** > 350 C

## 10. STABILITY AND REACTIVITY

**Reactivity** Incompatible with oxidising agents (eg. peroxides), acids (eg. sulfuric acid), active metals (eg. aluminium, potassium, magnesium), and heat and ignition sources.

**Decomposition Products** May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Moderate toxicity - narcotic at high levels. Use safe work practices to avoid eye or skin contact and vapour generation-inhalation. Over exposure at very high levels may result in liver and kidney damage. May cause skin sensitisation, although rare.

**Eye** Irritant. Contact may result in lacrimation, irritation, pain, redness and conjunctivitis. Prolonged contact - corneal burns and possible permanent damage.

**Inhalation** Irritant. Inhalation may cause irritation to the respiratory system, nose and throat irritation, coughing, and headache. Over exposure may result in nausea, dizziness and drowsiness.

**Skin** Irritant. Prolonged contact may result in skin rash, drying and defatting of the skin which may result in dermatitis. Potential sensitising agent.

**Ingestion** Moderate toxicity. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, dizziness, drowsiness and unconsciousness with large doses. Aspiration may result in chemical pneumonitis and pulmonary oedema.

**Toxicity Data** ISOPROPYL ALCOHOL (67-63-0)  
LC50 (Inhalation) : 16000 ppm/8 hours 16000/8 hours (rat)  
LD50 (Skin) : 12,800 mg/kg (rabbit)  
LD50 (Ingestion) : 3600 mg/kg (mouse)

## 12. ECOLOGICAL INFORMATION

**Environment** SOIL: Isopropanol will both evaporate quickly and leach into the ground due to its high vapour pressure and low adsorption to soil. If soil degradation is not rapid, it is apt to leach into the groundwater. WATER: Will volatilise when released into water (estimated half-life ~5.4 days) and may biodegrade. ATMOSPHERE: Photodegradation (estimated half-life of one to several days) will occur. Due to its solubility in water, rainout may be significant.

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## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

**Transport** Class 3 Flammable liquid. Do not transport with chemicals of class; 1 (Explosives), 2.1/ 2.3 (Flammable/ Toxic gases), 4.2 (Spontaneously combustibles), 5.1 (Oxidising agents), 5.2 (Organic peroxides), 6 (Toxics), 7 (Radioactives) and foodstuffs.

**UN Number** 1219

**Shipping Name** ISOPROPANOL (ISOPROPYL ALCOHOL)

**DG Class** 3

**Subsidiary Risk(s)** None Allocated

**Packing Group** II

**Hazchem Code** 2[Y]E

## 15. REGULATORY INFORMATION

**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** RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

### ABBREVIATIONS:

mg/m<sup>3</sup> - 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.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

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## 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.

**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.

**Report Reviewed** Awaiting manufacturer update

**Date Printed** 13th January 2005

**Report Status** Chem Alert reports are compiled as an independent source of information by RMT's scientific department, based on the latest chemical and toxicological research and, where appropriate, in compliance with relevant standards, guidance notes and legislation. Where available the manufacturer's original MSDS is also provided to Chem Alert subscribers as a scanned image for their 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.

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