

#### 1. IDENTIFICATION

Product Name Isopropyl Alcohol
Other Names IPA; Isopropanol

Uses For industrial use - Cosmetic use: Cosmetics, hair sprays and colours. Commercial use: A solvent; an industrial detergent;

a dry cleaning agent; fuel and lubricant additives; welding and soldering agents. Domestic use: Printing inks and surface coatings; adhesives; cleaning/washing agents, including in domestic detergents; and colouring agents. Site-limited use:

As a chemical intermediate; and in analytical laboratory work. Non-industrial use: As a solvent in pharmaceutical products.

Chemical Family No Data Available

Chemical FormulaC3H8OChemical Name2-PropanolProduct DescriptionNo Data Available

### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

#### **Emergency Contact Details**

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887



#### 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not Scheduled

**Globally Harmonised System** 

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

**Hazard Categories** Flammable Liquids - Category 2

Serious Eye Damage/Irritation - Category 2A

Specific Target Organ Toxicity (Single Exposure) - Category 3

**Pictograms** 





Signal Word Danger

Hazard Statements H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

Precautionary Statements Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

**P233** Keep container tightly closed.

**P240** Ground and bond container and receiving equipment.

**P241** Use explosion-proof electrical/ventilating/lighting and all other equipment.

**P242** Use non-sparking tools.

P243 Take action to prevent static discharges.
P261 Avoid breathing fumes/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.

**P280** Wear protective gloves/eye protection/face protection.

Response P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical attention.

P370 + P378 In case of fire: Use carbon dioxide (CO2), dry chemical, alcohol resistant foam or

water spray for extinction.

Storage **P403 + P235** Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal P501 Dispose of contents/container in accordance with local / regional / national /

international regulations.

#### **National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification** 

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
2-Propanol	No Data Available	67-63-0	<=100 %

#### 4. FIRST AID MEASURES

#### Description of necessary measures according to routes of exposure

**Swallowed** IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Call a Poison Centre or doctor/physician for advice. If

vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway

and prevent aspiration. Never give anything by mouth to an unconscious person.

IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting Eye

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye

irritation persists, get medical advice/attention.

Skin IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running

water for at least 15 minutes. Wash skin with soap and water. Call a Poison Centre or doctor/physician for advice. If skin

irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.

\*In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if

adhering to skin.

Inhaled IF INHALED: Remove victim to fresh air and keep warm and at rest in a position comfortable for breathing. Remove

> contaminated clothing and loosen remaining clothing. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical

device. Administer oxygen if breathing is difficult.

Show this safety data sheet (SDS) to the doctor in attendance. Treat symptomatically. Keep victim calm and warm. Effects Advice to Doctor

of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

\*Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Exposure** 

Medical Conditions Aggravated by Use of alcoholic beverages enhances the harmful effect.

### **5. FIRE FIGHTING MEASURES**

**General Measures** Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out.

Fight fire from maximum distance or use unmanned hose holders or monitor nozzles; this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

ALWAYS stay away from tanks engulfed in fire!

\*Public Safety Hazard: Effects may spread beyond the immediate vicinity. All non-essential personnel should be instructed to move at least 250 metres away from the incident. People should be warned to stay indoors with all doors and windows closed, preferably in rooms upstairs and facing away from the incident. Ignition sources should be eliminated and any

ventilation stopped.

**Flammability Conditions** HIGHLY FLAMMABLE LIQUID & VAPOUR: Will be easily ignited by heat, sparks or flames.

**Extinguishing Media** Use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam or water spray for extinction – Do not use a solid water

stream as it may scatter or spread fire. Alcohol resistant foam is the preferred firefighting medium but, if it is not

available, fine water spray can be used.

\*CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.

Fire and Explosion Hazard Risk of violent reaction or explosion! Vapours may form explosive mixtures with air. Vapours may travel to source of

ignition and flash back. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas. Vapour explosion hazard indoors, outdoors or in sewers. Containers may explode when heated. Many liquids are lighter than water. Fire exposed containers may vent contents through pressure relief valves, thereby increasing fire

intensity and/or vapour concentration.

\*Vapours may cause dizziness or suffocation; May cause toxic effects if inhaled or absorbed through skin.

**Hazardous Products of** 

Combustion

Fire will produce irritating, corrosive and/or toxic gases.

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may cause pollution. Runoff to sewer may create fire or

explosion hazard!

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

Flash Point 12 °C
Lower Explosion Limit 2 %
Upper Explosion Limit 12 %

Auto Ignition Temperature No Data Available

Hazchem Code •2YE

#### **6. ACCIDENTAL RELEASE MEASURES**

General Response Procedure Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking,

flares, sparks or flame). All equipment used when handling the product must be earthed. Do not touch or walk through

spilled material. Avoid breathing vapours and contact with eyes, skin and clothing.

Clean Up Procedures Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-

sparking tools to collect absorbed material. Adhered or collected material should be promptly disposed of in accordance

with appropriate laws and regulations (see SECTION 13).

**Containment** Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike far

ahead of large spill for later disposal.

\*Beware of vapours accumulating to form explosive concentrations. Vapour-suppressing foam may be used to reduce

vapours. Water spray may reduce vapour, but may not prevent ignition in closed spaces.

**Decontamination** No information available.

**Environmental Precautionary** 

Measures

Spillages and decontamination runoff should be prevented from entering drains and watercourses.

**Evacuation Criteria** Spill or leak area should be isolated immediately. Keep upwind and to higher ground. Keep unauthorised personnel

away.

 $^*$ Large spill: Consider initial downwind evacuation for at least 300 meters.

Personal Precautionary Measures Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

#### 7. HANDLING AND STORAGE

**Handling** Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). HIGHLY FLAMMABLE LIQUID: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/lighting/ventilating equipment. Use only non-sparking tools. Take

precautionary measures against static discharge. Vent container carefully before opening.

**Storage** Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers tightly closed when not in use. Keep

away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from

incompatible materials (see SECTION 10). Store locked up.

**Container** Keep in the original container.

\*Empty containers retain residue and/or vapour and may be dangerous. Do not cut, weld, braze solder, drill, grind or expose such containers to heat, flames, sparks, or other ignition sources.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General** For Isopropyl alcohol (CAS No. 67-63-0):

- Safe Work Australia Exposure Standard: TWA = 400 ppm (983 mg/m3); STEL = 500 ppm (1,230 mg/m3).

- New Zealand Workplace Exposure Standard [Next review 2023]: TWA = 400 ppm (983 mg/m3); STEL = 500 ppm (1,230

mg/m3).

- NIOSH REL/OSHA PEL: TWA = 400 ppm (980 mg/m3); STEL = 500 ppm (1,225 mg/m3).

- Immediately dangerous to life or health (IDLH) concentration: 2,000 ppm.

**Exposure Limits** No Data Available

**Biological Limits** No information available.

**Engineering Measures** 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.

\*Use explosion-proof electrical/lighting/ventilating equipment.

**Personal Protection Equipment** - Respiratory protection: Wear respiratory protection in case of inadequate ventilation or when vapour/aerosols are

generated. Recommended: Filter type: A (organic vapour).

- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Goggles; do not wear

contact lenses when handling this product.

- Hand protection: Wear protective gloves. Recommended: Impervious, solvent-resistant gloves.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Impervious

apron and work boots where splashing may occur.

**Special Hazards Precaustions** No information available.

Work Hygienic Practices Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off immediately all

contaminated clothing. Wash contaminated clothing before reuse.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Appearance Clear liquid

Odour Strong alcohol odour

**Colour** Colourless

pH No Data Available Vapour Pressure 4.4 kPa (@ 20 °C)

**Relative Vapour Density**  $2.1 \, \text{Air} = 1$ **Boiling Point**  $82 - 83 \, ^{\circ}\text{C}$ 

Melting PointNo Data AvailableFreezing PointNo Data AvailableSolubilityMiscible with water

Specific Gravity 0.78 - 0.79
Flash Point 12 °C

Auto Ignition TempNo Data AvailableEvaporation Rate2.4 (Butyl acetate = 1)Bulk DensityNo Data AvailableCorrosion RateNo Data AvailableDecomposition TemperatureNo Data Available

Density No Data Available **Specific Heat** No Data Available **Molecular Weight** No Data Available **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available No Data Available **Vapour Temperature** No Data Available Viscosity **Volatile Percent** No Data Available

**VOC Volume** 100 %

Additional Characteristics No information available.

Potential for Dust Explosion Not applicable.

Fast or Intensely Burning

Characteristics

Risk of violent reaction or explosion!

Flame Propagation or Burning

Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a

INU

No information available.

Properties That May Initiate or

Contribute to Fire Intensity

Reactions That Release Gases or

**Vapours** 

Fire

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.

Fire will produce irritating, corrosive and/or toxic gases.

Release of Invisible Flammable Vapours and Gases

Vapours may form explosive mixtures with air.

### 10. STABILITY AND REACTIVITY

**General Information** Reacts with strong oxidants. Attacks some plastics and rubber.

Chemical Stability Stable.

**Conditions to Avoid** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

Materials to Avoid Incompatible/reactive with strong oxidisers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates.

**Hazardous Decomposition** 

**Products** 

Fire will produce irritating, toxic and/or corrosive gases. Under incomplete combustion conditions, oxides of Carbon and

Nitrogen.

Hazardous Polymerisation Will not occur.

## 11. TOXICOLOGICAL INFORMATION

#### **General Information**

- Acute toxicity: Low degree of toxicity by ingestion; May cause abdominal pain, nausea, vomiting, unconsciousness. Low to moderate degree of toxicity by inhalation.
- Skin corrosion/irritation: Contact with skin may result in irritation. The substance may defat the skin, which may cause dryness or cracking.
- Eye damage/irritation: Causes serious eye irritation, redness.
- Respiratory/skin sensitisation: This material has been classified as not a respiratory sensitiser. This material has been classified as not a skin sensitiser.
- Germ cell mutagenicity: No information available.

- Carcinogenicity: Isopropyl alcohol (CAS No. 67-63-0) is classified in Group 3 of the IARC Monographs: Not classifiable as to its carcinogenicity to humans.
- Reproductive toxicity: No information available.
- STOT (single exposure): May cause irritation to the upper respiratory tract and may cause headache, drowsiness or dizziness (CNS depression).
- STOT (repeated exposure): No information available.
- Aspiration toxicity: Risk of aspiration, pneumonia (chemical pneumonitis).

Acute

**Ingestion** Acute toxicity (Oral):

- LD50, Rat: 5,045 mg/kg

Other Acute toxicity (Dermal):

- LD50, Rabbit: 12,800 mg/kg

**Inhalation** Acute toxicity (Inhalation):

- LC50, Rat: 16,000 ppm (8 h)

Carcinogen Category None

#### 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients):

>100 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500

and/or log Kow < 4.

**Persistence/Degradability** Readily biodegradable.

**Mobility** No information available.

**Environmental Fate** Prevent entry into soils, drains and waterways.

**Bioaccumulation Potential** No information available.

**Environmental Impact** No Data Available

#### 13. DISPOSAL CONSIDERATIONS

**General Information** Dispose of by controlled incineration and in accordance with local/regional/national regulations.

Special Precautions for Land Fill Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection

equipment is used (see SECTION 8).

### 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

**EPG** 16 Liquids - Highly Flammable, Toxic

UN Number 1219

Hazchem •2YE
Pack Group ||

**Special Provision** No Data Available

## Land Transport (Malaysia)

ADR Code

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

**EPG** 16 Liquids - Highly Flammable, Toxic

 UN Number
 1219

 Hazchem
 2YE

 Pack Group
 II

**Special Provision** No Data Available

#### Land Transport (Mexico)

**NOMs** 

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

**ERG** 129 Flammable Liquids (Polar / Water-Miscible / Noxious)

UN Number 1219
Hazchem •2YE
Pack Group ||

**Special Provision** No Data Available

## Land Transport (New Zealand)

NZS5433

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

**EPG** 16 Liquids - Highly Flammable, Toxic

 UN Number
 1219

 Hazchem
 2YE

 Pack Group
 II

Special Provision No Data Available

## **Land Transport (United States of America)**

**US DOT** 

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

**ERG** 129 Flammable Liquids (Polar / Water-Miscible / Noxious)

UN Number 1219
Hazchem •2YE
Pack Group II

**Special Provision** No Data Available

## **Sea Transport**

**IMDG** Code

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

 UN Number
 1219

 Hazchem
 2YE

 Pack Group
 II

Special Provision No Data Available

EMS F-E, S-D Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name ISOPROPANOL (ISOPROPYL ALCOHOL)

Class 3 Flammable Liquids
Subsidiary Risk(s) No Data Available

 UN Number
 1219

 Hazchem
 2YE

 Pack Group
 II

**Special Provision** No Data Available

## **National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**Dangerous Goods Classification**Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by

Road & Rail (ADG Code)

### 15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) Not Scheduled

## **Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001180 (Reissued)

## **National/Regional Inventories**

Australia (AIIC) Listed

Canada (DSL) Listed

Canada (NDSL) Not Listed

China (IECSC) Listed

**Europe (EINECS)** 200-661-7

Europe (REACh) Listed

Japan (ENCS/METI) 2-207

Korea (KECI) KE-29363

Malaysia (EHS Register) Listed

New Zealand (NZIoC) Listed

Philippines (PICCS) Listed

Switzerland (Giftliste 1) Not Determined

**Switzerland (Inventory of Notified** 

Substances)

Not Determined

Taiwan (NCSR) Listed

USA (TSCA) Listed

#### 16. OTHER INFORMATION

**Related Product Codes** 

ISPRAL0200, ISPRAL0300, ISPRAL0400, ISPRAL0500, ISPRAL0501, ISPRAL0502, ISPRAL0505, ISPRAL0510, ISPRAL0515, ISPRAL0520, ISPRAL0600, ISPRAL0601, ISPRAL0602, ISPRAL0603, ISPRAL0700, ISPRAL0701, ISPRAL0704, ISPRAL0800, ISPRAL0810, ISPRAL1000, ISPRAL1001, ISPRAL1002, ISPRAL1003, ISPRAL1004, ISPRAL1005, ISPRAL1006, ISPRAL1007, ISPRAL1008, ISPRAL1009, ISPRAL1010, ISPRAL1011, ISPRAL1012, ISPRAL1013, ISPRAL1014, ISPRAL1015, ISPRAL1016, ISPRAL1017, ISPRAL1018, ISPRAL1019, ISPRAL1020, ISPRAL1021, ISPRAL1022, ISPRAL1023, ISPRAL1024, ISPRAL1025, ISPRAL1026, ISPRAL1027, ISPRAL1028, ISPRAL1029, ISPRAL1030, ISPRAL1031, ISPRAL1032, ISPRAL1033, ISPRAL1034, ISPRAL1035, ISPRAL1036, ISPRAL1037, ISPRAL1038, ISPRAL1039, ISPRAL1040, ISPRAL1041, ISPRAL1042, ISPRAL1043, ISPRAL1044, ISPRAL1045, ISPRAL1047, ISPRAL1048, ISPRAL1050, ISPRAL1051, ISPRAL1052, ISPRAL1053, ISPRAL1055, ISPRAL1057, ISPRAL1058, ISPRAL1059, ISPRAL1060, ISPRAL1063, ISPRAL1070, ISPRAL1100, ISPRAL1101, ISPRAL1200, ISPRAL1210, ISPRAL1212, ISPRAL1300, ISPRAL1500, ISPRAL1501, ISPRAL1515, ISPRAL1520, ISPRAL1800, ISPRAL1801, ISPRAL1802, ISPRAL1803, ISPRAL1804, ISPRAL1805, ISPRAL1806, ISPRAL1807, ISPRAL1808, ISPRAL1809, ISPRAL1810, ISPRAL1811, ISPRAL1812, ISPRAL1813, ISPRAL1814, ISPRAL1815, ISPRAL1816, ISPRAL1817, ISPRAL1818, ISPRAL1819, ISPRAL1820, ISPRAL1821, ISPRAL1822, ISPRAL1823, ISPRAL1824, ISPRAL1825, ISPRAL1826, ISPRAL1827, ISPRAL1828, ISPRAL1829, ISPRAL1830, ISPRAL1831, ISPRAL1832, ISPRAL1900, ISPRAL1901, ISPRAL2000, ISPRAL2001, ISPRAL2200, ISPRAL2201, ISPRAL2500, ISPRAL2801, ISPRAL2802, ISPRAL3000, ISPRAL3001, ISPRAL3002, ISPRAL3003, ISPRAL3005, ISPRAL3010, ISPRAL3011, ISPRAL3012, ISPRAL3020, ISPRAL3030, ISPRAL3040, ISPRAL3050, ISPRAL3060, ISPRAL3070, ISPRAL3075, ISPRAL3076, ISPRAL3080, ISPRAL3090, ISPRAL3100, ISPRAL3110, ISPRAL3120, ISPRAL3130, ISPRAL3140, ISPRAL3141, ISPRAL3142, ISPRAL3143, ISPRAL3144, ISPRAL3145, ISPRAL3150, ISPRAL3160, ISPRAL3170, ISPRAL3500, ISPRAL3501, ISPRAL3800, ISPRAL4000, ISPRAL4001, ISPRAL4002, ISPRAL4003, ISPRAL4004, ISPRAL4005, ISPRAL4006, ISPRAL4500, ISPRAL5000, ISPRAL5100, ISPRAL5110, ISPRAL5120, ISPRAL5500, ISPRAL5510, ISPRAL5600, ISPRAL6000, ISPRAL6200, ISPRAL6400, ISPRAL6401, ISPRAL6500, ISPRAL6501, ISPRAL6510, ISPRAL6550, ISPRAL6600, ISPRAL6700, ISPRAL7000, ISPRAL7001, ISPRAL7100, ISPRAL7200, ISPRAL7300, ISPRAL7400, ISPRAL7500, ISPRAL7600, ISPRAL8000, ISPRAL8001, ISPRAL8002, ISPRAL8100, ISPRAL8200, ISPRAL8300, ISPRAL8400, ISPRAL8500, ISPRAL8600, ISPRAL8700, ISPRAL9000, ISPRAL9100, ISPRAL9500, ISPRAL9900, ISPRAL9910, ISPROL0500, ISPROL1000, ISPROL3000, ISPROL6500, ISPROL6600, ISPROL8000, ISPROL8001, ISPROL8101, ISPROL8101

Revision

**AICS** Australian Inventory of Chemical Substances

**atm** Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm<sup>2</sup> Square Centimetres

CO2 Carbon Dioxide

**COD** Chemical Oxygen Demand

deg C (°C) Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

**g** Grams

g/cm3 Grams per Cubic Centimetre

g/I Grams per Litre

**HSNO** Hazardous Substance and New Organism

**IDLH** Immediately Dangerous to Life and Health

immiscible Liquids are insoluable in each other.

inHg Inch of Mercury

inH20 Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

**Ib** Pound

**LC50** LC stands for lethal concentration. LC50 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.

**LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

**NIOSH** National Institute for Occupational Safety and Health

**NOHSC** National Occupational Heath and Safety Commission

**OECD** Organisation for Economic Co-operation and Development

Oz Ounce

**PEL** Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

**psi** Pounds per Square Inch

**R** Rankine

**RCP** Reciprocal Calculation Procedure

**STEL** Short Term Exposure Limit

**TLV** Threshold Limit Value

tne Tonne

**TWA** Time Weighted Average

ug/24H Micrograms per 24 Hours

**UN** United Nations

wt Weight