

## **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 Formula	C3H8O
Chemical Name	2-Propanol
Product Description	No Data Available

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

Organisation	Location	Telephone
		03 9768 2669
Aurora Cleaning Supplies	F1 / 5 Bungaleen Court Dandenong South VIC 3175	

## **Emergency Contact Details**

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

Organisation	Location	Telephone
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

**Hazard Categories** 

Pictograms

Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Flammable Liquids - Category 2

Serious Eye Damage/Irritation - Category 2A

Specific Target Organ Toxicity (Single Exposure) - Category 3



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)

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

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical	3.1B	Flammable liquid - high hazard
	Hazards		

Health Hazards	6.1E	Substances that are acutely toxic -May be harmful, Aspiration hazard
	6.4A	Substances that are irritating to the eye

## **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.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting 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.
Advice to Doctor	Show this safety data sheet (SDS) to the doctor in attendance. Treat symptomatically. Keep victim calm and warm. Effects 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.
Medical Conditions Aggravated by Exposure	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):

	<ul> <li>Safe Work Australia Exposure Standard: TWA = 400 ppm (983 mg/m3); STEL = 500 ppm (1,230 mg/m3).</li> <li>New Zealand Workplace Exposure Standard [Next review 2023]: TWA = 400 ppm (983 mg/m3); STEL = 500 ppm (1,230 mg/m3).</li> <li>NIOSH REL/OSHA PEL: TWA = 400 ppm (980 mg/m3); STEL = 500 ppm (1,225 mg/m3).</li> <li>Immediately dangerous to life or health (IDLH) concentration: 2,000 ppm.</li> </ul>
Exposure Limits	No Data Available
<b>Biological Limits</b>	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	<ul> <li>Respiratory protection: Wear respiratory protection in case of inadequate ventilation or when vapour/aerosols are generated. Recommended: Filter type: A (organic vapour).</li> <li>Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Goggles; do not wear contact lenses when handling this product.</li> <li>Hand protection: Wear protective gloves. Recommended: Impervious, solvent-resistant gloves.</li> <li>Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Impervious apron and work boots where splashing may occur.</li> </ul>
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
	No Data Available
	4.4 kPa (@ 20 °C)
Vapour Pressure	2.1 Air = 1
Relative Vapour Density	2.1 Air = 1 82 - 83 °C
Boiling Point	
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Miscible with water
Specific Gravity	0.78 - 0.79
Flash Point	12 °C
Auto Ignition Temp	No Data Available
Evaporation Rate	2.4 (Butyl acetate = 1)
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No 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
Vapour Temperature	No Data Available
Viscosity	No Data Available
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 Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Reactions That Release Gases or Vapours	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	<ul> <li>Acute toxicity: Low degree of toxicity by ingestion; May cause abdominal pain, nausea, vomiting, unconsciousness. Low to moderate degree of toxicity by inhalation.</li> <li>Skin corrosion/irritation: Contact with skin may result in irritation. The substance may defat the skin, which may cause dryness or cracking.</li> <li>Eye damage/irritation: Causes serious eye irritation, redness.</li> <li>Respiratory/skin sensitisation: This material has been classified as not a respiratory sensitiser. This material has been classified as not a skin sensitiser.</li> <li>Germ cell mutagenicity: No information available.</li> <li>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.</li> <li>Reproductive toxicity: No information available.</li> <li>STOT (single exposure): May cause irritation to the upper respiratory tract and may cause headache, drowsiness or dizziness (CNS depression).</li> <li>STOT (repeated exposure): No information available.</li> <li>Aspiration toxicity: Risk of aspiration, pneumonia (chemical pneumonitis).</li> </ul>	
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
Persistence/Degradability	< 500 and/or log Kow < 4. Readily biodegradable.
Mobility	No information available.
Environmental Fate	Prevent entry into soils, drains and waterways.
<b>Bioaccumulation Potential</b>	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	II
Special Provision	No Data Available
<b>Land Transport (Malaysia)</b> 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
	NO Data Avallabic

#### 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	ll
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

Proper Shipping Name	ISOPROPANOL (ISOPROPYL ALCOHOL)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1219
Hazchem	2YE
Pack Group	ll
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,
	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,
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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, ISPRAL3500, ISPRAL300, ISPRAL31400, ISPRAL3145, ISPRAL3150, ISPRAL3160, ISPRAL3170, ISPRAL3500, ISPRAL3501, ISPRAL3600, ISPRAL4000, ISPRAL4001, ISPRAL4002, ISPRAL4003, ISPRAL4004, ISPRAL4005, ISPRAL4006, ISPRAL4500, ISPRAL5000, ISPRAL5100, ISPRAL5110, ISPRAL5120, ISPRAL5500, ISPRAL5510, ISPRAL5600, ISPRAL6600, ISPRAL600, ISPRAL6400, ISPRAL500, ISPRAL5600, ISPRAL5500, ISPRAL5500, ISPRAL6500, ISPRAL6600, ISPRAL6400, ISPRAL6400, ISPRAL6400, ISPRAL500, ISPRAL6500, ISPRAL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL5000, ISPROL500

Revision Revision Date Key/Legend

14/02/2023

< Less Than > Greater Than 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/cm<sup>3</sup> 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 inH2O Inch of Water K Kelvin kg Kilogram kg/m<sup>3</sup> Kilograms per Cubic Metre **b** 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 m<sup>3</sup> Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m<sup>3</sup> Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH2O 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