



Safety Data Sheet

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	: Isopropyl Alcohol
Use	: Isopropyl Alcohol is a liquid solvent used in cosmetics and personal care products and application. It is also used in paints, coatings, resins, adhesives, printing inks, disinfectants, reaction/extraction solvent for pharmaceuticals, cleaning fluid for electronics and as a chemical intermediates.
Supplier	: Vital New Zealand Ltd
Supplier's Address	: 4/3 Kennedys Bush Road Christchurch 8025
Contact Number	: (64) 3 3225595 or (64) 22 426 5647

II. HAZARDS IDENTIFICATION

GHS Classification	: Flammable liquids : category 2 Acute toxicity - oral : category 5 Serious eye damage/irritation : category 2B Specific target organ toxicity, single exposure, narcotic effects : category 3 Aspiration hazard : category 2
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GHS label elements

Symbol(s)

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Signal words

: Danger

GHS Hazard statements

: **Physical Hazards**

H225 Highly flammable liquid and vapour

Health Hazards

H303 Maybe harmful if swallowed

H320 Causes eye irritation

H336 May cause drowsiness or dizziness

H305 Maybe harmful if swallowed and enters airways.

Environmental Hazards

Not classified as an environmental hazard under GHS criteria.

GHS Precautionary statements

: **Prevention**

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

P233 Keep container tightly closed.



Safety Data Sheet

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/spray/vapour.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P310	If swallowed : immediately call a poison center or doctor/physician.
P303+P361+ P353	If on skin : Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	If inhaled : Remove to fresh air and keep at rest in a position 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.
P331	Do not induce vomiting.

Storage

P403+P233	Store in a well ventilated place. Keep container tightly closed.
P235	Keep cool
P405	Store locked up.

Disposal

P501	Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.
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III. COMPOSITION / INFORMATION ON INGREDIENTS

Identification of the substance	: 2-propanol
Chemical Family	: Alcohol
Synonyms	: Isopropanol Dimethyl carbinol Secondary propanol Secondary propyl alcohol
Molecular Formula	: C ₃ H ₈ O
CAS Number	: 67-63-0
UN Number	: 1219
EC Number	: 200-661-7

IV. FIRST AID MEASURES

General Advice	: When symptoms persist or in all cases of doubt seek medical advice
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Safety Data Sheet

Inhalation	: Remove victim to fresh air. If cough or other respiratory symptoms develop, get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin Contact	: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Eye Contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	: Rinse mouth with water. If victim is conscious and alert, give 1 - 2 glasses of water or milk. Do not induce vomiting unless directed by medical personnel due to risk of lung damage. Never give anything by mouth to an unconscious or convulsing person. Call a physician immediately.

V. FIRE - FIGHTING MEASURES

Flash Point	: 12 °C (closed cup)
Auto-ignition Temperature	: 399 °C
Explosive Limits	: 2 - 12.7 %
Extinguishing Media	: Use water fog, foam, dry chemical or carbon dioxide (CO ₂) to extinguish flames.
Inappropriate Extinguishing Media	: Straight streams of water
Fire Fighting Procedures	: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop a leak. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.
Special Protective Equipment for Fire-Fighter	: Wear self-contained breathing apparatus with full face mask and protective clothing.
Unusual Fire Hazard	: Highly flammable. Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote ignition sources, causing a flashback fire danger.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions	: Evacuate personnel to safe areas. Remove all sources of ignition. Avoid contact with spilled material. Do not breathe vapours or spray mist. Wear self-contained breathing apparatus and protective suit. Shut off leaks if without risk. Keep people away from and upwind of spill / leak, due to toxicity or flammability of the material.
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Safety Data Sheet

Environment Precautions	: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. If substance has entered a water course or sewer or contaminated soil or vegetation, advise the local emergency services, and waste and environmental authorities.
Methods for Cleaning Up	: <u>For Small Spill</u> Use water spray to reduce vapors and take up with sand or other absorbent material (e.g soil, vermiculite, silica gel, sawdust) and place into sealed containers for proper disposal. <u>For Large Spill</u> Dike far ahead of spill for later disposal. No smoking, flames, or flares in hazard area. Ventilate spill area. If possible, the spilled liquid should be pumped or otherwise transferred to a waste container. Residual liquid should be absorbed and containerized in a separate container. Dispose of material in accordance with federal , state and local regulations.

VII. HANDLING AND STORAGE

Handling	: Avoid contact with eyes. Use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Use proper bonding and/or earthing procedures, to avoid generation of static charges when agitating or transferring product. Prevent small spills and leakage to avoid slip hazard. The use of compressed air for filling, discharging, mixing or handling is prohibited due to the vapour hazard. Handling temperature : ambient.
Storage	: Store in tightly closed containers in cool, dry, isolated and well ventilated areas away from heat, sources of ignition and incompatibles. Store away from oxidising agents. Keep containers closed at all times - check regularly for leaks. Do not eat, drink or smoke in areas of use or storage. Storage temperature : ambient
Suitable Materials and Coatings	: Carbon steel; Stainless steel; Polyester; Teflon; Polyethylene; Polypropylene; Copper Bronze; Epoxy Phenolic; Zinc; Vinyls
Unsuitable Materials and Coatings	: Aluminium; Cast iron; Polystyrene; Ethylene-propylene-diene monomer (EPDM); Monel; Butyl rubber; Natural rubber

VIII. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure standards	: American Conference of Governmental Industrial Hygienists (ACGIH) Isopropyl Alcohol : TWA - 200 ppm TWA is The time weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.
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Safety Data Sheet

Respiratory Protection	: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode.
Skin and Body Protection	: Rubber or plastic boots, Chemical resistant apron / complete suit protecting against chemical. Wash contaminated clothing and other protective equipment before storing or re-using.
Eye Protection	: Avoid eye contact by wearing chemical goggles with side shields or face shield. Safety shower with eye-wash should be provided in all areas where product is handled.
Hand Protection	: If prolonged or repeated contact is likely, chemical-resistant gloves are recommended. If contact with forearms is likely, wear gauntlet-style gloves made of nitril.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid
Colour	: Colourless
Odour	: Alcohol
Boiling Point Range	: 81 -83 °C
Melting Point	: - 88 °C
Flash Point	: 12 °C
Auto-ignition Temperature	: 399 °C
Explosive Limits	: 2 - 12.7 %
Vapour Pressure	: 35 mmHg
Vapour Density (relative to air)	: 2.07
Specific Gravity	: 0.7850 - 0.7870 (20 ° C)
Absolute Viscosity	: 2.0 cP @ 25 ° C (ASTM D-445)
Evaporation Time	: 1.5 (ASTM 3539, nBuAc = 1)
Water Solubility	: Soluble

X. STABILITY AND REACTIVITY

Stability	: Stable at normal conditions. React with strong oxidizer and strong acid.
Conditions to avoid	: Heat, sparks, flame and build-up of static electricity.
Incompatible Materials	: Aldehydes, Amines, Strong oxidisers, Caustics, Chlorinated Compounds, Alkanolamines.
Hazardous Polymerization	: Will not.
Hazardous Decomposition Products	: Burning can produce carbon dioxide and water, incomplete combustion can produce carbon monoxide.



Safety Data Sheet

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity

Acute Oral Toxicity	: LD50 rat : > 2000 mg / kg
Acute Inhalation Toxicity	: LC50 rat : > 20 mg/l/8 hours
Acute Dermal Toxicity	: LD50 rabbit : > 2000 mg/ kg

Effects on Human

Swallowed	: May be aspirated and cause lung damage.
Inhalation	: High concentration can cause central nervous systems depression with headache, dizziness and nausea. Prolonged inhalation can cause unconsciousness or even death.
Eye	: Vapour may irritate the eyes.
Skin	: Not irritating to skin, but prolonged and repeated contact may cause defatting which lead to dermatitis.
Chronic : Long Term Effects	: Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

XII. ECOLOGICAL INFORMATION

Persistence and Degradability	: Product is readily biodegradable
Ecotoxicity	: Fish: LC/EC/IC50 > 100 mg/ L Invertebrates : LC/EC/IC50 > 1000 mg/l Algae : LC/EC/IC50 > 1000 mg/l Microorganisms : LC/EC/IC50 > 1000 mg/l
Mobility	: Soluble in water. When released into the soil, this material will mobile and may contaminate groundwater.
Bioaccumulation	: Not expected to bioaccumulate significantly.

XIII. DISPOSAL CONSIDERATIONS

Substance	: This material must be contained and not disposed to sewerage systems, drains or waterways. It is prohibited to dispose its waste to the environment, without prior treatment in accordance with government regulation.
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Safety Data Sheet

Container	: Dispose of all waste containers and used drums in accordance with local authority guidelines. Empty containers must be decontaminated by rinsing with water. Non-returnable containers should be de-gassed prior to disposal. Waste containers can either be reused for the same material or disposed in accordance with government regulation.
Local Regulation	: Suitable for incineration by approved agent under controlled conditions if permitted by local authorities, otherwise disposal must be in accordance with local waste and environmental authority requirements.

XIV. TRANSPORTATION INFORMATION

Road and Rail Transport	: UN number	: 1219
	Class	: 3
	Packing Group	: II
Marine Transport	: UN number	: 1219
	Class	: 3
	Packing Group	: II
Air Transport	: UN number	: 1219
	Class	: 3
	Packing Group	: II

XV. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Related Regulations	: SS586 : 2008 - Standard on Hazard communication for hazardous chemicals and dangerous goods: Part 1 : Transport of DGs Part 2 : GHS of Classification & Labelling Part 3 : Preparation of SDS • AVA - The Control of Plants (Regulation of Pesticides) Rules. • MOM - The Workplace Safety and Health Act, the Workplace Safety and Health (General Provisions) Regulations and the Workplace Safety and Health (Risk Management) Regulations • MPA - The Maritime & Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations 2005. • NEA - The Environmental Protection and Management Act and the Environment Protection and Management (Hazardous Substances) Regulations, and the Control of Vectors and Pesticides Act. • SCDF - The Fire Safety Act and the Fire Safety (Petroleum and Flammable Materials) Regulations 2005.
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CHEMSTATION ASIA

Isopropyl Alcohol

Revision : 06

Effective Date : 03 Jan 2023

Safety Data Sheet

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- SPF - The Arms and Explosives Act, the Arms and Explosives (Explosives) Rules, and the Arms and Explosives (Explosive Precursors) Rules 2007.
 - EPA Approval Code: HSR001180
Hazard Classifications: 3.1B, 6.1E, 6.3B, 6.4A.
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XVI. OTHER INFORMATION

Abbreviation	:	ASTM	American Society for Testing and Materials
		ACGIH	American Conference of Governmental Industrial Hygienists
		EC ₅₀	Half Maximum Effective Concentration
		LC ₅₀	Lethal Concentration and Time
		LD ₅₀	Median Lethal Dose
		TWA	Time Weighted Averages

Disclaimer

The information contained in this Safety Data Sheet is intended to assist in the use of the above product without risk to safety or health and is based on current knowledge and experience. This information relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.
