



Safety Data Sheet

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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| 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

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| 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)

:



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.



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| 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

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| 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

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

Disposal

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| 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

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| 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

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| General Advice | : When symptoms persist or in all cases of doubt seek medical advice |
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| 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

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| 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

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| 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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| 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

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| 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

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| 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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| 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

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| 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

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| 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. |



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XI. TOXICOLOGICAL INFORMATION

Acute Toxicity

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| 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

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| 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

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| 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

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| 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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| 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

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| 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.

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| 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. |



CHEMSTATION ASIA

Isopropyl Alcohol

Revision : 06

Effective Date : 03 Jan 2023

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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

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| 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.
