

ISOPROPYL ALCOHOL 70%

Safety Data Sheet

1. IDENTIFICATION

Product name: **ISOPROPYL ALCOHOL 70%**

Synonyms

Isopropanol, Propan-2-ol, 2-propanol

Product Code

741

Recommended use: Industrial solvent: cleaning and degreasing

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2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous under GHS for Australia criteria

Hazardous Classification

Flammable Liquids: 2; Acute Toxicity - Dermal: 4

Hazardous Statement

Highly Flammable liquid and vapour

GHS Pictograms



Hazard Statements

H225: Highly flammable liquid and vapour

H320: Causes eye irritation

H336: May cause drowsiness or dizziness

Precautionary Statements

P403: Store in a well ventilated place.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P262: Do not get in eyes, on skin, or on clothing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P243: Take precautionary measures against static discharge.

P370+378: In case of fire: Use sand, earth, or chemical foam to extinguish.

Dangerous Goods Classification 3

Poisons Schedule 5

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%v/v)
Isopropyl Alcohol	67-63-0	70%

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4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor.

Ingestion

If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

Eye Contact

Flush eyes with large amounts of water until irritation subsides. Seek immediate medical attention.

Skin Contact

Flush area with large amounts of water and wash area with soap if available. Remove contaminated clothing, including shoes, and launder before reuse. Seek medical attention for skin irritations.

Inhalation

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

First Aid facilities

Provide eye baths and safety showers.

Medical Attention

Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Water spray, water fog or fine mist, alcohol foam

Hazards from combustion products

Carbon dioxide and carbon monoxide

Precautions for fire fighters and special protective equipment

Full protective clothing and self-contained breathing apparatus

Hazchem Code: • 2YE

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment

Major Land Spill

- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard.
- Prevent liquid from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Take measures to minimise the effect on the ground water.
- Contain the spilled liquid with sand or earth.
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See "First Aid Measures" and "Stability and Reactivity"

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Major Water Spill

- Eliminate any sources of ignition.
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard.
- Notify the port or relevant authority and keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so. Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See "First Aid Measures" and "Stability and Reactivity".

7. HANDLING AND STORAGE

Precautions for safe handling

This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Use grounding leads to avoid discharge (electrical spark).

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Do not pressurise, cut, heat or weld containers - residual vapours are flammable. This product is flammable and will fuel a fire in progress.

Incompatible materials

Natural Rubber, Butyl Rubber, EPDM, Polystyrene

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

National Exposure Standards

The time weighted average concentration (TWA) for this product is: 983 mg/m³ (400 ppm), which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is: 1230 mg/m³ (500 ppm), which is the maximum allowable exposure concentration at any time.

Biological limit values

No data available

Engineering Controls: Ventilation

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.

Eye Protection: Always use safety glasses or a face shield when handling this product.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear, colourless liquid
Boiling Point/ Range	°C	82
Flash Point	°C	12
Density @ 15°C	g/ml	0.785
Vapour Pressure @ 20°C	kPa	4.3

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Explosive Limits (LEL – UEL)	%	1.8 – 12
Vapour Density @ 20°C	kPa	> 1.00
Autoignition Temperature	°C	> 350
Viscosity @ 20°C	cSt	Not applicable
Percent Volatiles	%	100
Solubility with Water	% w/w	Completely soluble

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The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at room temperature and pressure

Conditions to avoid

Sources of heat and ignition, open flames.

Hazardous decomposition products

Carbon dioxide, carbon monoxide and organic complexes on incomplete burning/oxidation

Hazardous reactions

Stored mixtures with MEK produce explosive peroxides. Increased rate of peroxide formation with Isobutanol. Peroxide production sharply decreases the Autoignition Temperature. Violent, explosive reactions with metal oxides, oxidising agents, halogenate

Hazardous Polymerisation

Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

The single lethal dose for humans is approx. 250ml, however 100ml can be fatal. Symptoms of overexposure include: flushing, pulse rate decrease, blood pressure lowering, anaesthesia, narcosis, headaches, dizziness, mental depression, hallucinations, distorted perceptions, respiratory depression, nausea or vomiting, coma.

Eye Contact

This product is irritating to eyes and can cause corneal burns.

Skin Contact

This product is irritating to the skin with prolonged exposure. It may result in dryness and cracking.

Inhalation

This product is irritating to the respiratory tract. In high doses, this product has narcotic effects. At concentrations of 400ppm or higher, the product may induce a mild narcosis, with transient effects. See Ingestion Effects.

Chronic Effects

A slight tolerance to this product can be acquired. This product is easily absorbed by the skin yielding a narcotic action. Overexposure may not be immediately determined for those who have built a tolerance. Abuse of this product will be harmful. People with pre-existing liver or kidney conditions must avoid unnecessary product exposure (metabolises similarly to ethanol).

Other Health Effects Information

Questionable carcinogen. Mutation data reported. Experimental teratogenic and reproductive effects.

Toxicological Information

Oral LD₅₀: 2-propanol: 5045 mg/kg (oral, rat) Dermal TC_{Lo}: TD_{Lo}: 223 mg/kg (oral, human)

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic

Toxicity

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Fish Toxicity (rainbow trout, goldfish, bluegill):

LC₅₀(96hr): Based on data for a similar component or preparation, this product is expected to be toxic to aquatic organisms.

Daphnia Magna EC₅₀ (24 hr):

Not available

Blue-green algae (Toxicity threshold 7-8 days):

Not available

Green algae (Toxicity threshold 7-8 days):

Not available

Persistence/ degradability Volatilises in air

Mobility

This product is highly volatile and will rapidly evaporate to the air if released into the water

13.DISPOSAL CONSIDERATIONS

Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

Special Precautions for Landfill or Incineration

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be burned directly in appropriate equipment.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN No.	1219	UN No.	1219	UN No.	1219
Proper Shipping Name	Isopropyl Alcohol	Proper Shipping Name	Isopropyl Alcohol	Proper Shipping Name	Isopropyl Alcohol
DG Class	3	DG Class	3	DG Class	3
Sub. Risk	None	Sub. Risk	None	Sub. Risk	None
Pack Group	II	Pack Group	II	Pack Group	II
Hazchem	• 2YE	Hazchem	• 2YE	Hazchem	• 2YE

Dangerous Goods Segregation

This product is classed as Dangerous Goods Class 3, packing group II. Please consult the Australian Dangerous Goods Code for Transport by Road and Rail for information.

15.REGULATORY INFORMATION

Country/ Region: Australia

Inventory: AICS

Status: Listed

Poisons Schedule: 5

16.OTHER INFORMATION

Additional Information

ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European Inventory of Existing Commercial Substances.

GHS - Globally Harmonized System

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

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mg/m³ - Milligrams per cubic meter.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

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 Clean Plus Chemicals report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Clean Plus Chemicals 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.

Report Status

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals directly. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.