HURST SCIENTIFIC

Safety Data Sheet
Isopropanol 70-100%

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Isopropanol 70-100%
Product number	IPA-1LT/5LT, IPA70-500M/1L/2.5L, IPA90-500M, IPA95-500M/10L
Brand	Hurstchem
Substance name	Isopropanol
EC no.	200-661-7
CAS no.	67-63-0

1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place 6112 Forrestdale WA Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

1.5 Emergency phone number

Australian Poisons Information Centre 131 126
Australian Emergency Services 000

SECTION 2: Hazard identification

General hazard statement
Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as a Dangerous goods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Specific target organ toxicity following single exposure, Cat. 3
- Flammable liquids, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictograms

2. Exclamation mark; 3. Flame

Signal word	**Danger**
Hazard statement(s)	
H225	Highly flammable liquid and vapor
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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 person 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.
P310	Immediately call a POISON CENTER/doctor/...
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P370+P378	Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations

SECTION 3: Composition/information on ingredients

3.2 Mixtures

1. Isopropanol	
Concentration	> 70 %
2. Water	
Concentration	Remainder

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Evacuate to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth to mouth method. Induce artificial respiration with the aid of a pocket mark equipped with a one way valve or other proper respiratory medical device. Seek medical attention immediately.
In case of skin contact	Remove contiminated clothing and gently wash all affected skin areas thoroughly with soap and water. Seek medical attention
In case of eye contact	Flush eyes with water for 20 to 30 minutes. Seek medical attention
If swallowed	DO NOT induce vomiting. Rinse mouth with water and give plenty of water to drink to a conscious victim. Seek immediate medical attention.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Carbon Dioxide, dry chemical or alcohol-resistant foam or water spray.

5.2 Specific hazards arising from the chemical
Vapours and liquids are highly flammable. Vapour is heavier than air and may travel a considerable distance to source of ignition. Toxic gases/vapours may also evolve.

5.3 Special protective actions for fire-fighters
HIGHLY FLAMMABLE: Low flashpoint - Will be easily ignited by heat, sparks or flames. Eliminate all sources of ignition and evacuate area. Wear SCBA (Self-Contained Breathing Apparatus) and full protective equipment or chemical splash
suit. Water spray may be used to keep fire exposed containers cool.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation and remove all sources of ignition. Evacuate area of unprotected personnel. Wear necessary protective equipment to reduce risk of exposure.

6.3 Methods and materials for containment and cleaning up
Absorb with vermiculite or other non-combustible material and place into a suitably labelled container. Dispose of waste according to local authority guidelines. Wash the affected area with a large volume of water. Do not contaminate drains or waterways.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Wear personal protective equipment. Avoid breathing vapours and avoid contact with skin and eyes. Use only in an adequately ventilated area, away from ignition sources. Keep containers tightly closed when not in use. Ensure safety showers and eyewash facilities are provided within the work area.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area away from naked flames, heat, sparks, direct sunlight, other sources of ignition and incompatibles. Keep the container tightly closed when not in use and inspect regularly for damage or leaks. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 67-63-0
Isopropyl alcohol
AU/SWA (AU): 500 ppm; 1230 mg/m3 STEL inhalation; 400 ppm; 983 mg/m3 TWA inhalation

8.2 Appropriate engineering controls

Ensure adequate ventilation to maintain airborne concentrations below national exposure standards. Ventilation is required, whether natural or manual exhaust system is needed to keep levels below exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Safety glasses or splash-proof goggles.

Skin protection
Rubber, nitrile or neoprene gloves and laboratory coat.

Respiratory protection
Recommended mask/respirator in high-risk situations – Type A (Organic vapour).

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Form: liquid Colour: colourless
Color	Clear
Odor	alcohol-like
Melting point/freezing point	-88.5
Boiling point or initial boiling point and boiling range	82.5
Flammability	
Lower and upper explosion limit/flammability limit	
Flash point	12
Auto-ignition temperature	
Decomposition temperature	
pH	
Kinematic viscosity	
Solubility	*SOLUBILITIES: WATER : >=100 mg/mL @ 22 C (RAD) DMSO : >=100 mg/mL @ 22 C (RAD) 95% ETHANOL : >=100 mg/mL @ 22 C (RAD) METHANOL : Not available ACETONE : >=100 mg/mL @ 22 C (RAD) TOLUENE : Not available OTHER SOLVENTS: Alcohol: Miscible [016,031,043,295] Benzene: Soluble [016] Chloroform: Miscible [031,043,295,430] Ether: Miscible [031,043,062,295]

	Salt solutions: Insoluble [031,043,051] Glycerol: Miscible [295]
Partition coefficient n-octanol/water (log value)	
Vapor pressure	
Density and/or relative density	0.785 @ 20/4 C [055,371]
Relative vapor density	

SECTION 10: Stability and reactivity

10.1 Reactivity
Non-reactive and stable under recommended conditions for use and storage.

10.2 Chemical stability
Non-reactive and stable under recommended conditions for use and storage.

10.4 Conditions to avoid
Heat, sparks, open flames, direct sunlight and other sources of ignition.

10.5 Incompatible materials
Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
ISOPROPANOL
LD50 Oral - Rat - 5,045 mg/kg
LC50 Inhalation - Rat - 16000 ppm - 8 h
LD50 Skin - Rabbit - 12,800 mg/kg

Skin corrosion/irritation
May cause irritation, resulting in redness, rash, itchiness and dermatitis.

Serious eye damage/irritation
Can cause irritation, resulting in lacrimation, pain and redness.

Respiratory or skin sensitization
Irritation to the mucous membranes of the respiratory system, nose and throat can occur. Results can include coughing and headache.

Germ cell mutagenicity
No evidence of mutagenic properties.

Carcinogenicity
Group 3 - Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure
May cause irritation to the upper respiratory tract and may cause headache and coughing. High level exposure may result in drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure
Not classified based on available information.

Aspiration hazard
Not classified based on available information.

SECTION 12: Ecological information

Toxicity
Not classified.

Persistence and degradability
Readily biodegradable.

Mobility in soil
No information available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Dispose of in accordance with local authority guidelines.

Packaging disposal
Dispose of in accordance with local authority guidelines.

Waste treatment
Dispose of in accordance with local authority guidelines.

Sewage disposal
DO NOT contaminate drains and waterways.

SECTION 14: Transport information

Classified as Dangerous Goods by the criteria of the Australian Dangerous goods code.
UN Number: UN1219
UN Proper shipping name: Isopropanol (Isopropyl Alcohol)
Class: 3 (Flammable Liquid)
Packing Group: II
Special Precautions: Nil
Hazchem Code: 2YE

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Australian Inventory of Industrial Chemicals
Chemical name: 2-Propanol
CAS number: 67-63-0, CR number: 757

Australian Inventory of Industrial Chemicals
Chemical name: Water
CAS number: 7732-18-5, CR number: 11271

Chemical Safety Assessment
Poison Schedule: Not applicable
• TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day week.
• STEL (Short Term Exposure Limit): The average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour workday.

SECTION 16: Other information

16.1 Further information/disclaimer

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals
Code of Practice, (2011). The information contained within is believed to be accurate at the date of preparation/review. Hurst
Scientific makes no claims of the accuracy or completeness of the information and excludes all liability for any loss or damage
related to the supply or use of the information in this material safety data sheet. It is recommended the user make their own
determinations as to the suitability of the information provided to the application in which the product is to be used.

16.2 Preparation information

References
1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (2011).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013)
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); Canprint: Canberra (2007), Volume 1, 7th Edition.
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).