

## MATERIAL SAFETY DATA SHEET

Ref. No. : LS3515	Issue date : October 2003	Issued by LABSCAN ASIA
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**PRODUCT NAME : ISO PROPYL ALCOHOL**

### COMPANY DETAILS

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### HAZARDS IDENTIFICATION

<b>Product Name</b>	PROPAN-2-OL		
<b>Proper Shipping Name</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)		
<b>Other Names</b>	<u>Name</u>	<u>Grade</u>	<u>Labscan Code</u>
	PROPAN-2-OL	AR	A3515
	PROPAN-2-OL	HPLC	C2519
	PROPAN-2-OL	PESTI	P5515
	PROPAN-2-OL	SPECTRO	S7515
	ISO-PROPYL ALCOHOL		
	ISOPROPANOL		
	2-PROPANOL		
	SEC-PROPYL ALCOHOL		
<b>UN No.</b>	1219		
<b>D.G. Class</b>	3.2		
<b>Packing Group</b>	II		
<b>Hazchem Code</b>	2[Y]E		
<b>Poisons schedule</b>	Not schedule		
<b>EEC-No</b>	603-003-00-0		
<b>Class</b>	F; R11; Xo R36; R67		
<b>CAS-No</b>	67-63-0		
<b>Weight</b>	100%		
<b>Most important hazards</b>	Highly flammable, Irritant effect on eyes.		

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**Specific hazards** Liquid causes severe inflammation of conjunctiva and may cause severe damage of the cornea. Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. Effects due to ingestion may include: vomiting, dizziness, abdominal pain & unconsciousness. Effects of breathing high concentrations of vapor may include; headache, irritation of respiratory system, nausea, vomiting, dizziness & unconsciousness.

### FIRST AID

**General advice:** Show this safety data sheet to the doctor in attendance.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments / apparatus.

**Skin contact:** Remove contaminated clothing and wash affected skin with soap and water. If signs of poisoning appear, treat as for inhalation. Wash contaminated clothing before re-use. Contaminated combustible material, e.g. clothing ignites more readily and burns fiercely.

**Eye contact:** If the substance has got into the eyes, immediately wash out with plenty of water or saline solution for at least 15 minutes. Obtain medical attention.

**Ingestion:** Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth to nose. Use suitable instruments / apparatus. Obtain medical attention.

### FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**  
Extinguish preferably with dry chemical / alcohol-resistant foam sand.

**Extinguishing media which must not be used for safety reasons:**  
Do not use water jet.

**Specific hazards:**  
Carbon oxides.

**Special protective equipment for firefighters:**  
Wear self-contained breathing apparatus and protective suit.

**Specific methods:**  
Standard procedure for chemical fires. Water mist may be used to cool closed containers.

**Hazchem Code:** 2 [Y] E

### ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Evacuate personnel to safe areas. Remove all sources of ignition. Wear self-contained breathing apparatus and protective suit. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

**Environmental precautions:** Contain or absorb leaking liquid with sand or earth. Prevent liquid entering sewers basements and work pits; If substance has entered a water course or sewer or contaminated soil or vegetation, advise police.

Continued on next page

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**Methods for cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Transfer to covered steel drums. Contact waste disposal services. Dispose of promptly.

### SAFE HANDLING AND STORAGE INFORMATION

**Handling:** Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors.)

**Storage:** Keep tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Store in original container. Electrical equipment should be protected to the appropriate standard.

### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Chemical Name:**  
ISOPROPYL ALCOHOL

**National occupational exposure limits:**  
EH40:OES 400 ppm (980 mg/m<sup>3</sup>) 8h TWA.  
EH40:OES 500 PPM (1225 MG/M<sup>3</sup>)15 min TWA.

**Engineering measures to reduce exposure:**  
The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Ventilation hoods and fans required when working with organic solvents or in hot melt applications.

**Personal protection equipment:**

- Respiratory protection:** Incase of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection:** PVC or other plastic material gloves.
- Eye protection:** Goggles giving complete protection to eyes.
- Skin and body protection:** Rubber or plastic boots, Chemical resistant apron / complete suit protecting against chemicals.

**Hygiene measures:**  
Keep working clothes separately. Keep away from food, drink and animal feeding stuffs.

### PHYSICAL DATA AND OTHER PROPERTIES

<b>Formula</b>		(CH <sub>3</sub> ) <sub>2</sub> CHOH	
<b>Form</b>		Liquid,	
<b>Colour</b>		Colourless,	
<b>Odour</b>		Alcoholic	
<b>Boiling point/range</b>		79-82°C	
<b>Melting point/range</b>		-88°C	
<b>Flash point</b>		12 open cup °C	
<b>Autoignition temperature</b>		> 400°C	
<b>Flammability limits</b>		high flammable	
<b>Explosion limits</b>	lower	2.5 vol.%	
	Upper	12.7 vol.%	
<b>Vapour pressure</b>	(20°C)	41.6	hPa

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<b>Relative density</b>	(20°C)	>= 0.785	
		<= 0.825	
<b>Bulk density</b>		786 kg/m <sup>3</sup>	
<b>Solubility</b>	<b>Water solubility</b>	completely miscible	g/l
	<b>Solubility in other solvents</b>	Alcohol & Ether	
<b>Viscosity</b>	(20°C)	3.057 (cST)	mPa.s

### STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions. No incompatible products to be specially mentioned.
<b>Conditions to avoid:</b>	Stable at normal conditions.
<b>Materials to avoid:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	None reasonably for seeable.

### TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	<b>Ingestion:</b> LD50/oral/rat = 5840 mg/kg.
	<b>Inhalation:</b> LD50/inhalation/4h/rat = 46.5 mg/l.
	<b>Skin contact:</b> LD50/dermal/rabbit => 12800 mg/kg.
<b>Sensitization:</b>	Irritant effect on eyes. Irritant to skin. Irritating to respiratory system.
<b>Long term toxicity:</b>	Repeated and prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
<b>Chronic toxicity:</b>	No data is available on the product itself.

### ECOLOGICAL INFORMATION

<b>Mobility:</b>	Completely miscible with water.
<b>Persistence / degradability:</b>	Readily biodegradable, according to appropriate OECD test Biochemical oxygen demand (BOD) =>78% theoretical oxygen demand (ThOD)(BOD20)
<b>Bio accumulation:</b>	Bio accumulation not applicable. Bio concentration factor (BCF) = 1
<b>Ecotoxicity:</b>	LC50/96h/fathead minnows = 9600 mg/l. LC50/24h/daphnia = > 1000 mg/l.

### DISPOSAL CONSIDERATIONS

<b>Waste from residues / unused products:</b>	Can be incinerated, when in compliance with local regulations. Contact waste disposal services.
<b>Contaminated packaging:</b>	Empty containers can be land filled after cleaning, when in compliance with local regulations.

Continued on next page

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### TRANSPORT INFORMATION

<b>UN-No.</b> .....1219 <b>ADR/RID</b> <b>Class</b> .....3.0 <b>TREM-CARD</b> .....LAB30TR30 <b>Proper shipping name</b> .....ISOPROPANOL (Isopropyl alcohol)  <b>IMO</b> <b>Class</b> .....3.2 <b>MFAG</b> .....305 <b>Proper shipping name</b> .....ISOPROPANOL (Isopropyl alcohol)  <b>ICAO</b> <b>Class</b> .....3.0 <b>Proper shipping name</b> .....ISOPROPANOL (Isopropyl alcohol)	<b>Marine pollutant</b> .....not applicable  <b>Item</b> .....3(b) <b>HI/UN No</b> .....33/1219  <b>EmS</b> .....3-06 <b>IMDG Page</b> .....3244 <b>Packaging group</b> .....II  <b>UN/ID No</b> .....1219
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### REGULATORY INFORMATION

**Classification according to European directive on classification of hazardous preparations 90/492/EEC**

**Contains:** ISO PROPYL ALCOHOL  
**Symbol(s):** F – Highly flammable



<b>R – phrase(s)</b>	R11	– Highly flammable.
	R36	- Irritating to eyes.
	R67	- Vapours may cause drowsiness and dizziness.
<b>S – phrase(s)</b>	S7	- Keep container tightly closed.
	S16	- Keep away from sources of ignition – No smoking.
	S24/25	- Avoid contact with skin and eyes.
	S26	- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Recommended restrictions:</b>	Take notice of labels and material safety data sheets for the working chemicals. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors.)	
<b>Recommended use:</b>	General purpose solvent.	

### CONTACT POINT

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    Tel : 612-853-66200, 612-8536-6218  
    Fax : 612-853-66250

