

PRODUCT NAME: ISOPROPYL ALCOHOL 70% VOL Page 1 of 6

MSDS NO: EFFECTIVE DATE: February 1, 2014

MANUFACTURED BY: Commercial Alcohols

Bruce Energy Centre
4th Concession

Chatham, Ontario

275 Bloomfield Road

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EMERGENCY PHONE NUMBER: CANUTEC (613) 996-6666

TRANSPORTATION

PRIMARY CLASS:	3	CLASS NAME: FLAMMABLE LIQUID	UN#: 1219
SUBSIDIARY CLASS:	None	and the first section of	
SHIPPING NAME:	Isopropanol		

I. EMERGENCY AND FIRST AID PROCEDURE

INGESTION	 Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink about 250ml (8fl. oz.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek medical assistance.
<u>SKIN</u>	 Flush contaminated area with water for at least 20 minutes. Remove contaminated clothing under running water. Completely decontaminate clothing before re-use, or discard. If irritation occurs seek medical attention.
INHALATION	 Remove victim to fresh air. Artificial respiration should be given if breathing has stopped and cardiopulmonary resuscitation if heart has stopped. Oxygen may be given if necessary. Seek medical attention immediately.
<u>Eyes</u>	 Immediately flush eyes with water for at least 20 minutes, holding the eyelids open. Seek medical attention immediately.
NOTES TO PHYSICIAN	

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS MADE WITH RESPECT TO INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN.



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II. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT, °C	• 21 (Tag closed cu	ip, ASTM D-56)							
OTHER IMPORTANT DA-	COMPONENT	% V/V			VAPOUR PRESSURE	VAPOUR DENSITY	AUTOIGNI- TION		
TA			LOWER	UPPER	KPA AT 20°C	(AIR = 1)	POINT, °C		
	(1) Isopropanol	70	2.5	12.0	4.40	2.1	399		
	Water	Balance			f				
MEDIA	 Use carbon dioxide or dry chemical media for small fires. Water is generally unsuitable and may help to spread the fire. 								
SPECIAL FIREFIGHTING PROCEDURES	Water is generallUse water sprayUse water sprayUse self-containe	to cool fire-exp to disperse vap	osed containe ours; reignitio	rs and struc n is possible	ctures.				
PROCEDURES									
UNUSUAL FIRE AND EXPLOSION HAZARDS		ks, heaters, ele	ctrical equipn		ved by air currents discharges or othe	~ .			

III. IDENTIFICATION

CHEMICAL NAME	ISOPROPANOL	CHEMICAL FAMILY	ALCOHOLS
FORMULA	(1) CH ₃ - CHOH - CH ₃	Molecular Weight	(1) 60.09
SYNONYMS	2-propanol, dimethyl carbinol, isopropano	l alcool isopropylique,	IPA.
<u>Use</u>	Rubbing alcohol.		



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IV. PHYSICAL DATA

BOILING POINT, °C at 760mm Hg	82.1
FREEZING POINT, °C	-26.7
DENSITY, kg/L @ 20°C	0.876
COEFFICIENT OF WATER/OIL DISTRIBUTION	Separates from oil
рН	Not Applicable
DISTILLATION RANGE, °C	80.7-100.1
MISCIBILITY IN WATER	Complete
% VOLATILES BY VOLUME	100
EVAPORATION RATE (butyl acetate = 1)	2.3

APPEARANCE AND ODOUR

- Colourless liquid with typical lower alcohol odour.
- The odour threshold of isopropanol is between 40 and 200 ppm, according to the Canadian Centre of Occupational Health and Safety.

V. INGREDIENTS AND TOXICOLOGICAL DATA

INGREDIENT	% V/V	CAS NO.	TLV, ppm	LC50, ppm/4h.	LD50, mg/kg	LD50, mg/kg
				RAT, INHAL.	RAT, ORAL	RABBIT, SKIN
(1) Isopropanol	70	67-63-0	400	16,970	4,420	13,000
Water	Balance			· · · · · · · · · · · · · · · · · · ·		

REFERENCES: ACGIH (1988-1989), RTECS (1983).

VI. WHMIS CLASSIFICATION AND SYNERGISTIC MATERIALS

WHMIS CLASSIFICATION	Flammable liquid (B-2), eye irritant (D-2B).	
SYNERGISTIC MATERIALS		



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VII. HEALTH HAZARD DATA

INGESTION	 Ingestion of isopropanol may cause drowsiness, gastrointestinal pain, cramps, nausea, vomiting and diarrhoea; unconsciousness and death may follow massive exposures.
SKIN ABSORPTION	 No adverse effects with normal skin. However, potentially harmful amounts of material may be absorbed across markedly abraded skin when contact is sustained, particularly in children.
INHALATION	 Mild irritation of the upper respiratory tract may begin at approximately 400 ppm. High concentrations may cause drowsiness, lack of coordination and deep narcosis.
SKIN CONTACT	 Mild irritant. Repeated or prolonged exposure may lead to drying and cracking.
EYE CONTACT	 Severe eye irritant. Isopropanol vapours can irritate eyes beginning at approximately 400 ppm. Eye damage from contact with liquid is reversible and proper treatment will result in healing within a few days. Damage is usually mild to moderate conjunctivitis, seen mainly as redness of the conjunctiva.
EFFECT OF REPEATED OVEREXPOSURE	
MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE	
OTHER EFFECTS OF OVEREXPOSURE	



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VIII. REACTIVITY DATA

STABILITY	•	Stable
CONDITIONS TO AVOID	•	Sources of ignition
INCOMPATIBILITY	•	Oxidizing materials
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS	•	Burning can produce carbon monoxide and/or carbon dioxide and/or formaldehyde.
HAZARDOUS POLYMERIZATION	•	Will not occur
CONDITIONS TO AVOID	•	None currently known

IX. SPILL OR LEAK PROCEDURES

SPILL	 Contain spilled material. Provide adequate ventilation and protective equipment.
	 Remove sources of heat, sparks or flames. Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal.
WASTE DISPOSAL	 Waste material should be disposed of in an approved incinerator or in a designated landfill site, in compliance with all federal, provincial and local government regulations.

X. SPECIAL PROTECTION INFORMATION

RESPIRATORY EQUIPMENT	 Up to 1000 ppm, an approved organic vapour cartridge respirator can be used. For concentrations above 1000 ppm, an air-supplying respirator is recommended. The user should consult a respirator guide, such as the Canadian Standards Association's guide Z94.4-M1982.
VENTILATION	 The ventilation system should be non-sparking, grounded and separate from other exhaust ventilation systems. Local ventilation is recommended when handling.
PROTECTIVE GLOVES	Neoprene, butyl or natural rubber.
EYE PROTECTION	Chemical resistant monogoggles when handling
OTHER PROTECTIVE EQUIPMENT	Eye bath, safety shower and other protective equipment as required.



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XI. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

- · Keep away from heat, sparks and flames.
- Keep container closed when not in use.
- Use with adequate ventilation.
- Avoid breathing vapours.
- Avoid contact with eyes and skin.
- · Wash exposed skin thoroughly after handling.
- Take precautions to prevent static electricity build-up when transferring contents.

OTHER PRECAUTIONS

 Good personal hygiene practices are suggested, such as abstaining from eating, drinking and smoking in the workplace.

XII. MSDS PREPARATION

PREPARED BY:

Alcohol QA, Technical Services, and Regulatory Affairs Department

PHONE NUMBER:

(905) 790-7500

DATE: February 1, 2014

COMMERCIAL ALCOHOLS URGES EACH CUSTOMER OR RECIPIENT OF THIS MSDS TO STUDY IT CAREFULLY TO BECOME AWARE OF AND UNDERSTAND THE HAZARDS ASSOCIATED WITH THE PRODUCT. THE READER SHOULD CONSIDER CONSULTING REFERENCE WORKS OR INDIVIDUALS WHO ARE EXPERTS IN VENTILATION, TOXICOLOGY OR FIRE PREVENTION, AS NECESSARY OR APPROPRIATE TO USE AND UNDERSTAND THE DATA CONTAINED IN THIS MSDS.

TO PROMOTE SAFE USE AND HANDLING OF THIS PRODUCT, EACH CUSTOMER OR RECIPIENT SHOULD

- (1) NOTIFY EMPLOYEES, AGENTS, CONTRACTORS AND OTHERS WHO MAY USE THIS MATERIAL, OF THE INFORMATION IN THIS MSDS AND ANY OTHER INFORMATION REGARDING HAZARDS OR SAFETY,
- (2) FURNISH THIS SAME INFORMATION TO EACH CUSTOMER FOR THE PRODUCT, AND
- (3) REQUEST CUSTOMERS TO NOTIFY THEIR EMPLOYEES, CUSTOMERS, AND OTHER USERS OF THE PRODUCT OF THIS INFORMATION.

