

Comet Chemical Company Ltd.

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Materials Safety Data - ISOPROPYL ALCOHOL

Shipping Name	UN - 1219
Transport of Dangerous Goods Class	ISOPROPYL ALCOHOL or ISOPROPANOL
WHMIS Class	Class 3; Packing Group II
Material Use	B 2; D 2B
	solvent, cleaner, disinfectant, reagent

1. HAZARDOUS INGREDIENTS	CAS NUMBER	%	TWAEV (ppm)	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ ppm INHALATION
Isopropyl Alcohol (Isopropanol, 2-Propanol, <i>sec</i> -Propyl Alcohol)	67-63-0	100%	400	3600	12,900	17,000

NOTE: LD₅₀ varies markedly between species. The worst cases are given above.

2. PHYSICAL CHARACTERISTICS

Odour & Appearance	clear, colourless, liquid with strong alcoholic (rubbing alcohol) odour
Odour Threshold	3 - 60ppm
Vapour Pressure	33mmHg (20°C)
Vapour Density (air = 1)	2.1
Boiling Point	82°C
Freezing Point	-89°C
Specific Gravity	0.786
Water Solubility	complete

3. FLAMMABILITY & REACTIVITY

Flash Point	13°C
Autoignition Temperature	399°C
Flammable Limits	2% - 12.7%
Hazardous Combustion Products	carbon monoxide, nitrogen oxides, smoke
Firefighting Precautions	foam, dry chemical, water fog, water spray only to cool, product floats on water - water jet spreads flames; firefighters must wear SCBA
Sensitivity to Static Discharge	not sensitive
Sensitivity to Mechanical Impact	not sensitive
Chemical Stability	stable; will not polymerize
Reactive With	strong oxidising agents
Dangerous Decomposition Products	none apart from "Hazardous Combustion Products"

4. TOXICOLOGY EFFECTS OF ACUTE EXPOSURE

Skin Contact	drying, may irritate
Skin Absorption	some; toxic effects not normally anticipated by this route
Eye Contact	severely irritating; may damage eyes
Inhalation	irritating; headache, dizziness, drowsiness, respiratory depression, intoxication
Ingestion	headache, dizziness, drowsiness, respiratory depression, intoxication and collapse

(IPA, cont'd)

EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure may cause skin cracking and dermatitis repeated exposure may cause liver and kidney damage
Sensitising	no
Carcinogenic	no
Reproductive Effect	experimental reproductive toxin in rodents at 11,000ppm; no effect known in humans
Synergistic With	not known
Estimated LD ₅₀	3600mg/kg (oral, mouse), 12,800mg/kg (skin, rabbit)
Estimated LC ₅₀	17,000ppm (inhalation, rat)

5. PROTECTIVE EQUIPMENT

Hands	butyl or nitrile rubber gloves
Eyes	chemical safety goggles
Respirator	not required if ventilation is adequate (see TWAEV, (1) above), or use organic vapour cartridge
Clothing	impervious (hands, above) apron , boots, long sleeves, if splashing is anticipated

6. ENVIRONMENT

Leak Precaution	dyke to control spillage and prevent environmental contamination	
<< Fire Risk:	<i>blanket spill with foam as a precaution against accidental ignition.</i>	>>
Handling Spill	ventilate contaminated area; recover free liquid with explosion-proof pumps; absorb residue on an inert sorbent, pick up with non-sparking plastic or aluminum shovels, and store in closed containers for disposal	
Waste Disposal	do not flush to sewer; may be incinerated in approved facility	

7. STORAGE & HANDLING

Store and use in a cool dry environment, away from sources of ignition, heat and oxidising agents. Use with adequate ventilation. Although this product is not a static accumulator, we recommend that you ground the container before handling to prevent static discharge which may cause ignition. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

8. FIRST AID

SKIN:	Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.
INHALATION:	Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION:	Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, keep victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

Emergency telephone numbers	- weekdays from 8:00 - 5:00	(705) 436-5580
	at all other times	(800) 567-7455 (Philip Environmental)

Prepared for Comet Chemical Co. Ltd., by **Nicholas Morgan, October 2002; Revised August 2005**

The information herein is given in good faith but no warranty, expressed or implied, is made.

PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO THE PERSON USING THIS PRODUCT.

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