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Section I - Product Identification

Product: isopropanol. It is common usage to refer to this as "99% isopropanol." In reality the concentration of isopropanol is typically greater than 99.5%.

Intended use: Used as a general laboratory reagent.

Uses advised against: Not for consumer use.

Manufacturer Identification

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Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquid: Category 2 (H225). Highly flammable liquid and vapor.

Eye damage/eye irritation: Category 2A (H319). Causes serious eye irritation.

Acute toxicity (Oral): Category 4 (H301). Toxic if swallowed.

Acute toxicity (Inhalation): Category 4 (H331). Toxic if inhaled.

Signal word: Danger

Hazard statements

According to the harmonized classification and labeling approved by the EU, this substance is a highly flammable liquid and vapor, causes serious eye irritation and may cause drowsiness or dizziness. In case of skin contact remove all contaminated clothing. In case of fire, use fire extinguishers approved for alcohol fires.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautions against static discharge.
P280 Wear protective clothes and eye protection.

Safety Ratings

Health: Hazardous **Flammability:** Highly flammable **Reactivity:** None **Contact:** Slight

Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Keep cool, away from sources of ignition in a well ventilated area.

NFPA Ratings

Health = 1 Flammability = 4 Reactivity = 0

Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to other aliphatic alcohols. Vapors cause mild irritation of eyes and upper respiratory tract; high concentrations may be anesthetic. Liquid irritates eyes and may cause injury.

Inhalation: Alcohols are absorbed through the mucous membranes and will produce irritation as well as the same effects as ingestion.

Ingestion: Inhalation will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death.

Skin contact: Usually harmless to skin. Repeated contact may cause irritation and flaking.

Eye contact: May be irritating.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure to alcohols. Preexisting eye, skin, and respiratory conditions may also be aggravated.

Section III - Composition/Information on Components

Ingredients	CAS #	EC/List #	%w/w
Isopropanol	67-63-0	200-661-7	99 - 100.5%

Section IV - First Aid Measures

General Advice: Contact a doctor if symptoms persist

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Aspiration of alcohol into the lungs may produce death. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact get medical advice if irritation develops.

Eye Contact: In case of eye contact, flush with water for a few minutes and get medical attention.

Section V - Fire Fighting Measures

Fire Extinguishing Media: Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against alcohol fires but may be used to cool adjacent containers.

Flash point: 12 °C (53 °F) TCC

Flammable Limits : LEL 2% UEL 12%

Specific Hazards: Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when heated. Vapor in air may form explosion risk.

Special information: Pyrolysis will release toxic carbon monoxide, formaldehyde and methanol.

Special protective gear and precautions: Self contained breathing apparatus and protective gear recommended.

Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Store away from open flames or other sources of ignition. Keep out of reach of children.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropanol	400 ppm	400 ppm	2000 ppm

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.

OSHA: Occupational Safety and Health Administration.

NIOSH: National Institute for Occupational Safety and Health.

IDLH: Immediately dangerous to life or health.

Ventilation System: Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a *positive pressure, full face piece, air supplied respirator.*

Skin protection: Usually not required.

Eye Protection: Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Boiling Point: 180 °F (82 °C)

Vapor pressure (mm Hg): 33 @ 20 °C

Vapor Density (air = 1): 2.1

Volatile organic carbon (VOC): 785 g/l

Has the characteristic odor of isopropanol.

Density: 0.786 g/ml @ 20 °C

Evaporation Rate (N-butyl alcohol = 1): 1

Solubility: Infinitely miscible with water

Appearance and Odor: A clear colorless liquid with a

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Nothing unusual.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers.

Conditions to avoid: heat, flame and sources of ignition.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropanol	>4700 mg/kg (Rat)	13,000 mg/kg (Rabbit)	19,000 ppm/8h (Rat)

Cancer lists

<i>Ingredient</i>	<i>Known Carcinogenicity?</i>	<i>NTP?</i>	<i>Anticipated?</i>	<i>IARC Category</i>
Isopropanol	no	no	no	3

Section XII - Ecological Information

Isopropanol evaporates quickly and are not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption.

Environmental Fate: Biodegradable

Soil Mobility: Unknown

Environmental Toxicity: Low.

Component	Freshwater Fish	Water Flea	Freshwater algae
Isopropanol	LC50 > 9640 mg/l 96 h	EC50 >7550 mg/l 48 h	EC50 >1000 mg/l 72 h

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of alcohol and other flammable liquids that may be flushed down the drain. The usual rule is that the effluent exiting the building can't be flammable. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation Information

DOT Shipping name: Isopropanol

Hazard Class: 3 *Packaging Group:* II

DOT Hazard Label: Flammable liquid

DOT Identification Number: UN1219

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.150(b)(2), 173.150(C) and IATA Y341].

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient *TSCA* *EC*

Isopropanol Yes Yes

Federal and State Regulations

<i>Ingredient</i>	<i>SARA 302</i>		<i>SARA 313</i>		<i>RCRA</i>	<i>TSCA</i>	<i>Ca. Prop 65</i>
	<i>RQ</i>	<i>TPQ</i>	<i>List</i>	<i>Category</i>	<i>261.33</i>	<i>8(D)</i>	
<i>Isopropanol</i>	<i>No</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No Reactivity: No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Mopec assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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