

## Safety Data Sheet

# Isopropyl Alcohol 99%

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Isopropyl Alcohol 99%

**Synonyms/Generic Names:** IPA, Isopropanol, 2-propanol, sec-Propyl alcohol

**SDS Number:** 385.00

**Product Use:** For Educational Use Only

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information Contact:** Ward's Science  
5100 West Henrietta Rd.  
PO Box 92912-9012  
Rochester, NY 14692  
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Flammable liquid, Target organ effect, Irritant

**Target Organs:** Nerves, Kidney, Cardiovascular system, Gastrointestinal tract, Liver

**Signal Words:** Danger

**Pictograms:**



**GHS Classification:**

Flammable liquids	Category 2
Skin irritation	Category 3
Eye irritation	Category 2A
Specific target organ toxicity- single exposure	Category 3

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H225	Highly flammable liquid and vapor
H316	Causes mild skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

**Precautionary Statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

**Potential Health Effects**

<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. Can cause irritation of mucous membranes and central nervous system depression.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Ingestion</b>	May be harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	1
<b>Flammability</b>	3
<b>Reactivity</b>	1
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	2
<b>Fire</b>	3
<b>Reactivity</b>	0
<b>Personal</b>	H

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Isopropyl Alcohol	>99	67-63-0	200-661-7	C <sub>3</sub> H <sub>8</sub> O	60.10 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

**5. FIREFIGHTING MEASURES**

<b>Suitable (and unsuitable) extinguishing media</b>	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires with this material. Cool containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Use water spray to cool fire-exposed containers and disperse vapors. Containers may rupture in the heat of the fire. Do not use direct water stream, may spread the fire.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides) under fire conditions. Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray. Flames may be invisible. (See also Stability and Reactivity section)

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment. Use personal protective equipment. Avoid breathing vapors, mist or gas.
<b>Environmental precautions</b>	Do not let product enter drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Absorb spill with vermiculite or other noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with local regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. See section 8 for recommendations on the use of personal protective equipment. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Take measure to prevent the buildup of electrostatic charge.

### Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers in a cool, dry, well ventilated area. Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational exposure controls:** Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Isopropyl Alcohol	200 ppm 492 mg/m <sup>3</sup>	TLV	ACGIH
	400 ppm 984 mg/m <sup>3</sup>	STEL	ACGIH
	400 ppm 980 mg/m <sup>3</sup>	PEL	OSHA
	2000 ppm	IDLH	OSHA
	400 ppm 980 mg/m <sup>3</sup>	REL	NIOSH
	500 ppm 1225 mg/m <sup>3</sup>	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles with face shield.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance (physical state, color, etc.)	Clear, colorless liquid
Odor	Mild alcohol
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-89°C (-129°F)
Initial boiling point and boiling range	82°C (180°F)
Flash point	12°C (54°F)
Evaporation rate	3.0
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	LEL: 2.5% UEL:12%
Vapor pressure	(@ 20°C) 33 mmHg
Vapor density	(air=1) 2.07
Relative density	Not Available
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Log Pow: 0.05
Auto-ignition temperature	399°C (750°F)
Decomposition temperature	Not Available

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Keep away from heat, flame and sparks
<b>Incompatible Materials</b>	Acids, Alkali metals, Oxidizing agents, iron salts, potassium, aluminum. May attack plastics and rubber.
<b>Hazardous Decomposition Products</b>	Carbon oxides.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

<b>Skin</b>	LD50 Dermal- rabbit- 12,800 mg/kg
<b>Eyes</b>	Eyes-rabbit- Eye irritation- 24 h
<b>Respiratory</b>	LD50 Inhalation- rat- 8 h- 16,000 ppm
<b>Ingestion</b>	LD50 Oral- rat- 5,045 mg/kg

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Burning, itching, redness. May be harmful if absorbed through skin.
<b>Eyes</b>	Redness, excessive blinking and watering eyes.
<b>Respiratory</b>	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
<b>Ingestion</b>	Nausea, vomiting and central nervous system depression.

<b>Chronic Toxicity</b>	Ingestion may cause blindness.
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Pre- and Post- implant mortality.
<b>Specific Target Organ Toxicity</b>	Not Available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

<b>Aquatic Vertebrate</b>	LC50 – Pimephales promelas (fathead minnow)- 9,640 mg/l- 96 h
<b>Aquatic Invertebrate</b>	EC50- Daphnia magna (water flea)- 5,102 mg/l- 24 h
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

## 14. TRANSPORTATION INFORMATION

<b>US DOT</b>	UN1219, Isopropanol, 3, pg II
<b>TDG</b>	UN1219, ISOPROPANOL, 3, pg II
<b>IMDG</b>	UN1219, ISOPROPANOL, 3, pg II
<b>Marine Pollutant</b>	No
<b>IATA/ICAO</b>	UN1219, Isopropanol, 3, pg II

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Isopropyl Alcohol
SARA 312	Isopropyl Alcohol
SARA 313	Listed: Isopropyl Alcohol
WHMIS Canada	Class B-2: Flammable liquid

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## 16. OTHER INFORMATION

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Revision	Date
Revision 1	01/31/2013

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