

SECTION 1 **IDENTIFICATION**

Product Name: Isopropyl Alcohol 99%
Date: May 20, 2023 Rev 2

Supplier: Enviro Tech International
1800 N 25th Ave.
Melrose Park, IL 60160
(708) 343-6641
www.envirotechint.com

EMERGENCY CONTACT:

CHEM-TEL 24-HR EMERGENCY CONTACT U.S,
Canada, Puerto Rico, U.S Virgin Islands (800) 255
-3924 INTERNATIONAL CALLS: +01-813-248-
0585

Product Name: **Isopropyl Alcohol 99%**
Synonyms: Isopropanol; Isopropyl Alcohol; 2-Propanol; sec-propyl alcohol;
dimethylcarbinol; sec-propanol; Rubbing alcohol; 1-Methylethanol
Chemical Name: Isopropyl Alcohol
Chemical Formula: C_3H_8O
CAS Number: 67-63-0
Product Use: Solvent

SECTION 2 **HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**
Signal Word - Warning

OSHA Hazards: Flammable liquid, Target Organ Effect, Irritant
Target Organs: Cardiovascular system, Gastrointestinal tract, Kidney, Liver, Nerves

Hazard Statement(s)

H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Precautionary Statement(s)

P261: Avoid breathing dust/fumes/gas/mist/vapors.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P501: Dispose of contents and container to an approved waste disposal plant.
P240: Ground/bond container and receiving equipment.
P321: Specific treatment (see First Aid Measures on this label).
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P210: Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P233: Keep container tightly closed.
P102: Keep out of reach of children.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P235: Keep cool.
P405: Store locked up.
P243: Take precautionary measures against static discharge.
P241: Use explosion-proof electrical, ventilating, and lighting equipment.
P242: Use only non-sparking tools.
P271: Use only outdoors or in a well-ventilated area.

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves and eye and face protection

GHS Classification(s)

Eye irritation Category 2

Flammable Liquids Category 2

Specific target organ toxicity - single exposure Category 3

Potential Health Effects

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Component	CAS Number	Percent
Isopropyl Alcohol	67-63-0	99%

SECTION 4 FIRST-AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

SECTION 5 FIRE FIGHTING MEASURES

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 399°C (750.2°F)

Flash Points: CLOSED CUP: 11.667°C (53°F) - 12.778 deg. C (55 deg. F) (TAG)

Flammable Limits: LOWER: 2% UPPER: 12.7%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Highly flammable in presence of open flames and sparks, of heat. Flammable in presence of oxidizing materials. Nonflammable in presence of shocks.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Explosive in presence of open flames and sparks, of heat.

Fire Fighting Media and Instructions: Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Protective Equipment and Precautions for Firefighters: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep unopened containers cool by spraying with water.

Special Remarks on Fire Hazards: Vapor may travel considerable distance to source of ignition and flash back. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME. Hydrogen peroxide sharply reduces the autoignition temperature of Isopropyl alcohol. After a delay, Isopropyl alcohol ignites on contact with dioxigenyl tetrafluoroborate, chromium trioxide, and potassium tert-butoxide. When heated to decomposition it emits acrid smoke and fumes.

Special Remarks on Explosion Hazards: Secondary alcohols are readily autooxidized in contact with oxygen or air, forming ketones and hydrogen peroxide. It can become potentially explosive. It reacts with oxygen to form dangerously unstable peroxides, which can concentrate and explode during distillation or evaporation. The presence of 2-butanone increases the reaction rate for peroxide formation. Explosive in the form of vapor when exposed to heat or flame. May form explosive mixtures with air. Isopropyl alcohol + phosgene forms isopropyl chloroformate and hydrogen chloride. In the presence of iron salts, thermal decomposition can occur, which in some cases can become explosive. A homogeneous mixture of concentrated peroxides + isopropyl alcohol are capable of detonation by shock or heat. Barium perchlorate + isopropyl alcohol gives the highly explosive alkyl perchlorates. It forms explosive mixtures with trinitromethane and hydrogen peroxide. It produces a violent explosive reaction when heated with aluminum isopropoxide + crotonaldehyde. Mixtures of isopropyl alcohol + nitroform are explosive.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material.

Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the SDS and with local authorities.

SECTION 7 HANDLING AND STORAGE

Precautions: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

Storage: Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: **OSHA PEL** 400 ppm
 ACGIH TLV 400 ppm

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colorless Liquid
Odor:	Odor resembling that of a mixture of ethanol and acetone.
pH (1% soln/water):	Not available
Boiling Point:	82.5°C (180.5°F)
Melting Point:	-88.5°C (-127.3°F)
Specific Gravity:	0.78505 (Water = 1)
Vapor Pressure:	4.4 kPa (@ 20°C)
Vapor Density:	2.07 (Air = 1)
Odor Threshold:	22 ppm
Water/Oil Dist. Coeff.:	The product is equally soluble in oil and water; log(oil/water) = 0.1

Dispersion Properties: See solubility in water, methanol, diethyl ether, n-octanol, acetone.

Solubility: Easily soluble in cold water, hot water, methanol, diethyl ether, n-octanol, acetone. Insoluble in salt solution. Soluble in benzene. Miscible with most organic solvents including alcohol, ethyl alcohol, chloroform.

Molecular Weight: 60.1 g/mole

SECTION 10 **STABILITY AND REACTIVITY**

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources (flames, sparks, static), incompatible materials

Incompatibility with various substances: Slightly reactive to reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Reacts violently with hydrogen + palladium combination, nitroform, oleum, COCl₂, aluminum triisopropoxide, oxidants Incompatible with acetaldehyde, chlorine, ethylene oxide, isocyanates, acids, alkaline earth, alkali metals, caustics, amines, crotonaldehyde, phosgene, ammonia. Isopropyl alcohol reacts with metallic aluminum at high temperatures. Isopropyl alcohol attacks some plastics, rubber, and coatings. Vigorous reaction with sodium dichromate + sulfuric acid. (Isopropyl alcohol)

Special Remarks on Corrosivity: May attack some forms of plastic, rubber and coating.

Polymerization: Will not occur.

SECTION 11 **TOXICOLOGICAL INFORMATION**

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation.

Toxicity to Animals: WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 3600 mg/kg [Mouse]. Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 16000 8 hours [Rat].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. May cause damage to the following organs: kidneys, liver, skin, central nervous system (CNS).

Other Toxic Effects on Humans: Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, sensitizer, permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive/teratogenic effects (fertility, fetotoxicity, developmental abnormalities (developmental toxin)) based on animal studies. Detected in maternal milk in human. (Isopropyl alcohol)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: May cause mild skin irritation, and sensitization.

Eyes: Can cause eye irritation.

Inhalation: Breathing in small amounts of this material during normal handling is not likely to cause harmful effects. However, breathing large amounts may be harmful and may affect the respiratory system and mucous membranes (irritation), behavior and brain (Central nervous system depression - headache, dizziness, drowsiness, stupor, unconsciousness, coma and possible death), peripheral nerve and sensation, blood, urinary system, and liver.

Ingestion: Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Swallowing large amounts may cause gastrointestinal tract irritation with nausea, vomiting and diarrhea, abdominal pain.

SECTION 12 **ECOLOGICAL INFORMATION**

Ecotoxicity: Ecotoxicity in water (LC50): 100000 mg/l 96 hours [Fathead Minnow]. 64000 mg/l 96 hours [Fathead Minnow].

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 **DISPOSAL CONSIDERATIONS**

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14 **TRANSPORTATION DATA**

DOT: **UN Number:** 1219
 UN Proper Shipping Name: Isopropyl Alcohol
 Transport Hazard Class: 3
 Packing Group: II

IMDG: **UN Number:** 1219
 UN Proper Shipping Name: Isopropyl Alcohol
 Transport Hazard Class: 3
 Packing Group: II
 EMS-No.: F-E, S-D
 Marine Pollutant: No

IATA: **UN Number:** 1219
 UN Proper Shipping Name: Isopropyl Alcohol
 Transport Hazard Class: 3
 Packing Group: II

SECTION 15 REGULATORY INFORMATION**Federal and State Regulations:**

Connecticut hazardous material survey.:

Illinois toxic substances disclosure to employee act:

Right to Know: Rhode Island, Pennsylvania, Florida, Minnesota, Massachusetts, New Jersey

SARA 302: No

SARA 313: Yes

SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Other Classifications:

WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

DSCL (EEC): R10- Flammable . S25- Avoid contact with eyes. S36/37- Wear suitable protective clothing and gloves. S38- In case of insufficient ventilation, wear suitable respiratory equipment

Protective Equipment: Gloves. Lab coat. Vapor respirator. Be sure to use an approved/ certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

SECTION 16 OTHER INFORMATION

Only trained personnel should use this material. Since empty containers retain product residue, follow label warnings , even after container is emptied. Each user of this product should study this SDS carefully and consult appropriate expertise as necessary to become aware of and understand the data contained in this SDS and any hazards that maybe associated with this product. The information provided in this Safety Data Sheet relates only to the specific material designated herein. The user is responsible for determining the conditions of safe use of this product and for complying with all Federal, State and Local governmental laws and regulations concerning its use .Enviro Tech International , Inc. makes no warranty, express or implied, including the warranty of merchantability and fitness for a particular purpose, and assumes no liability or responsibility for the accuracy, completeness, timeliness or usefulness of this information. Enviro Tech International, Inc assumes no liability for any damages incurred, whether directly or indirectly, as a result of any errors, omissions or discrepancies in this information. Enviro Tech International, Inc. assumes no liability for reliance on this data and assumes no liability for damages related to the use or misuse of this product.