

# SAFETY DATA SHEET



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## 24-Hour Emergency Number (CHEMTREC)

USA: 800-424-9300  
International: 703-527-3887

All non-emergency numbers should be directed  
to Customer Service at 800-PURITY1

## ISOPROPYL ACETATE

SDS No. M0212

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Isopropyl Acetate

Synonyms: 1-Methylethyl Ester; 2-Acetoxypropane; 2-Propyl Acetate; Methylethyl Ethanoate

Recommended Use: This product is recommended for laboratory and manufacturing use only. It is not recommended for drug, food or household use.

### 2. HAZARDS IDENTIFICATION



#### **Classification:**

Flammable Liquids: GHS Category 2

Eye Irritation: GHS Category 2A

Specific target organ toxicity – single exposure: GHS Category 3

#### **Label Elements**

Signal Word: DANGER!

#### Hazard Statements:

H225 – Highly flammable liquid and vapor.

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.

P233 – Keep container tightly closed.

P240 – Ground/bond container and receiving equipment.

P243 – Take precautionary measures against static discharge.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Clear focus. Consistent results. Complete confidence.

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

P501 – Dispose of contents/ container to an approved waste disposal plant.

### **Emergency Overview**

Highly flammable liquid and vapor. Causes eye, skin, and respiratory tract irritation. Breathing vapors may cause drowsiness and dizziness. Repeated exposure may cause skin dryness or cracking. Target Organs: Central nervous system, eyes, and skin.

#### HMIS Rating:

Health – 1 Flammability – 3 Physical Hazard – 0 PPE – User supplied

NOTE: HMIS ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. These ratings are based on the inherent properties of this chemical under expected conditions of normal use and are not intended to be used in emergency situations. PPE is determined by the user based on their needs and conditions.

### **3. COMPOSITION AND INFORMATION ON INGREDIENTS**

<u>Ingredient</u>	<u>CAS No</u>	<u>Percent</u>	<u>Hazardous</u>
Isopropyl Acetate	108-21-4	>90%	Yes

### **4. FIRST-AID MEASURES**

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do not use mouth-to-mouth resuscitation.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical help.

Skin Contact: Remove contaminated clothing. Wash skin with water for at least 15 minutes. Clean clothing and shoes before reusing. Get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

### **5. FIRE FIGHTING MEASURES**

Flammability: Highly flammable liquid and vapor (GHS Category 2)

Auto-ignition Temperature: 479° C (894° F)

Flash Point: 4° C (39° F)

Flammable Limits: Lower Limit – 1.76 vol %, Upper Limit – 7.2 vol %

Products of Combustion: May decompose into irritating and highly toxic gases under fire conditions (carbon monoxide and carbon dioxide).

Specific Fire Hazards: As in any fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear. Liquid may float and reignite on the surface of the water. Containers may explode if exposed to fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Fire Fighting Media: Water may be ineffective. Use dry chemical, carbon dioxide, or alcohol-resistant foam.

National Fire Protective Association: Health - 2, Flammability - 3, Reactivity - 0

NOTE: NFPA ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. They are for use by emergency personnel to address the hazards that are presented by short term, acute exposure to this product under fire, spill, or similar emergencies. Ratings involve data and interpretations that may vary from company to company.

### **6. ACCIDENTAL RELEASE MEASURES**

Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth. Do not use sawdust or any combustible material. Use spark-proof tools. Provide ventilation to the affected area and remove all ignition sources. Prevent spread of vapors. Approach the spill from upwind and pick up absorbed material and place it in a suitable container. Avoid release into the environment. Always use proper personal protective equipment as described in section 8.

## 7. HANDLING AND STORAGE

**Precautions:** Always use proper personal protective equipment as described in section 8. Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Empty containers contain product residue (liquid and vapor) and can be dangerous. Keep container tightly closed and away from heat, spark, and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks, or open flames. Use with adequate ventilation. Avoid breathing vapor or mist.

**Storage:** Keep in a flammables area away in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from oxidizers. Keep away from sources of ignition.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or using the material should be equipped with eyewash station and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Personal Protection:** Wear protective chemical goggles or other appropriate eye protection. Use butyl rubber or appropriate chemical protective gloves and protective clothing to prevent skin exposure. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever possible. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Exposure Limits:**

ACGIH – 100 ppm TWA; 200 ppm STEL

NIOSH – 1800 ppm IDLH

OSHA Final PELs – 250 ppm TWA; 950 mg/m<sup>3</sup> TWA

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State and Appearance:** Clear, colorless liquid.

**Odor:** Acetic odor.

**Molecular Formula:** CH<sub>3</sub>CO<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>

**Molecular Weight:** 102.13

**Auto-ignition Temperature:** 479° C (894° F)

**Flash Point:** 4° C (39° F)

**Flammable Limits:** Lower Limit – 1.76 vol %, Upper Limit – 7.2 vol %

**pH:** Not available.

**Boiling Point:** 85° C (185° F)

**Freezing/Melting Point:** -62° C (-79° F)

**Decomposition Temperature:** Not available

**Specific Gravity:** 0.87 g/cm<sup>3</sup>

**Vapor Density (Air=1):** 3.5

**Vapor Pressure:** 47.5 mm Hg @ 25° C.

**Evaporation Rate (butyl acetate = 1):** 3.0

**Viscosity:** 0.60 mPa @ 20° C

**Solubility:** Slightly soluble

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal temperature and pressure.

**Conditions to Avoid:** Heat, flames, ignition sources and incompatibles.

Incompatibility with Various Substances: Strong oxidizers

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, skin absorption, skin contact

Acute Exposure Hazards:

INHALATION HAZARD: Causes irritation to the respiratory tract. Inhalation of vapors may cause dizziness and drowsiness.

INGESTION HAZARD: May cause irritation to the gastrointestinal tract with nausea, vomiting and diarrhea. May cause central nervous system depression characterized by excitement followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma, and possible death due to respiratory failure.

SKIN CONTACT HAZARD: May cause skin irritation. Repeated or prolonged exposure may cause drying and cracking of skin.

EYE CONTACT HAZARD: Causes eye irritation.

Chronic Exposure Hazards: Prolonged or repeated skin exposure may cracking of skin or dermatitis.

Animal Toxicity:

Draize test, rabbit, skin: 500 mg/24H Mild;

Inhalation, rat: LC50 = 50,600 mg/m<sup>3</sup>/8H;

Oral, rat: LD50 = 6750 mg/kg;

Oral, rabbit: LC50 = 4946 mg/kg;

Skin, rabbit: LD50 = >20 ml/kg;

Carcinogenicity: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

## 12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Environmental Fate: No information available.

## 13. DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION

US DOT, IATA, IMO

Proper Shipping Name: Isopropyl Acetate

Hazard Class: 3

UN Number: UN1220

Packing Group: II

Canada TDG

Additional Information: Flashpoint 4 C

## 15. REGULATORY INFORMATION

US Federal Regulations:

TSCA: CAS# 108-21-4 is listed on the TSCA Inventory.

Health and Safety Reporting List: Not listed.

Chemical Test Rules: CAS# 108-21-4: Not listed.

Section 12b: Not listed.

TSCA Significant New Use Rule: Does not have an SNUR under TSCA.

CERCLA Hazardous Substances: CAS# 108-21-4 does not have RQ

SARA Section 302: Does not have a TPQ

SARA Codes: CAS# 108-21-4 – immediate, fire

Section 313: Isopropyl acetate (CAS# 108-21-4) is not subject to SARA Title III Section 313 and 40 CFR 373 reporting requirements.

Clean Air Act: CAS# 108-21-4 is not listed as a hazardous air pollutant (HAP). It is not a Class 1 Ozone Depleter. It is not a Class 2 Ozone Depleter.

Clean Water Act: CAS# 108-21-4 is not listed as a Hazardous Substance. It is not a Priority Pollutant. It is not a Toxic Pollutant.

OSHA: Not considered highly hazardous by OSHA.

US State Regulations:

CAS# 108-21-4 is on the following state right-to-know lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts

California Prop 65: California No Significant Risk Level: Not listed

Canada:

DSL/NDSL: CAS# 108-21-4 is listed on Canada's DSL list.

WHMIS: This product has a WHMIS classification of D2B, B2. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by those regulations.

Ingredient Disclosure List: CAS# 108-21-4 is listed on Canada's Ingredient Disclosure List.

DSCL (EEC):

Hazard Symbols: Xi, F

Risk Phrases: R11 – Highly flammable; R36 – irritating to the eyes; R66 – Repeated exposure may cause skin dryness and cracking; R67 – Vapors may cause drowsiness and dizziness.

Safety Phrases: S16 – Keep away from sources of ignition – no smoking; S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S29 – Do not empty into drains; S33 – Take precautionary measures against static discharges.

WGK (Water Danger/protection): CAS# 108-21-4: 1

**16. OTHER INFORMATION**

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