

**SIGMA-ALDRICH****Material Safety Data Sheet**

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 Version 1.60

**Section 1 - Product and Company Information****Product Name** Isopropyl acetate, ≥99.6%**Product Number** 537462**Brand** Aldrich Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052

**Emergency Phone:** 314-776-6555**Section 2 - Composition/Information on Ingredient**

<b>Substance Name</b>	<b>CAS #</b>	<b>SARA 313</b>	<b>EC no</b>	<b>Annex I Index Number</b>
ISOPROPYL ACETATE	108-21-4	No	203-561-1	
<b>Formula</b> <b>Synonyms</b>	$C_5H_{10}O_2$ Acetale d'isopropyle (French), Acetic acid, 1-methylethyl ester (9CI), 2-Acetoxypropane, Isopropile (acetato di) (Italian), Isopropylacetaat (Dutch), Isopropylacetat (German), Isopropyl acetate (ACGIH;OSHA), Isopropyl (acetate d') (French), Isopropylester kyseliny octove (Czech), 2-Propyl acetate			

**Section 3 - Hazards Identification****Emergency Overview**

Flammable (USA) Highly Flammable (EU). Irritant.  
 Irritating to eyes, respiratory system and skin.

**HMIS Rating**

Health: 1 Flammability: 3 Reactivity: 1

**NFPA Rating**

Health: 1 Flammability: 3 Reactivity: 1

For additional information on toxicity, please refer to Section 11.

**Section 4 - First Aid Measures****Oral Exposure**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**Dermal Exposure**

In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure**

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

**Section 5 - Fire Fighting Measures****Flammable Hazards:** Yes**Explosion Hazards**

Vapor may travel considerable distance to source of ignition and flash back.  
 Container explosion may occur under fire conditions.

**Flash Point:** 39 °F 4 °C**Explosion Limite:** Lower: 1.8 % Upper: 8 %**Autoignition Temp:** 479 °C **Flammability:** Yes**Extinguishing Media  
Suitable**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Firefighting  
Protective Equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Specific Hazard(s)**

Flammable liquid. Emits toxic fumes under fire conditions.

**Specific Method(s) of Fire Fighting**

Use water spray to cool fire-exposed containers.

**Section 6 - Accidental Release Measures****Procedure to be Followed in Case of Leak or Spill**

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

**Procedure(s) of Personal Precaution(s)**

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

**Method for Cleaning Up**

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

**Section 7 - Handling and Storage****Handling****User Exposure**

Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

**Storage****Suitable**

Keep tightly closed. Keep away from heat, sparks, and open flame.

**Special Requirements**

Moisture sensitive.

**Section 8 - Exposure Controls / PPE****Engineering Controls**

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

**Personal Protective Equipment****Respiratory**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU) Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

**Hand**

Compatible chemical-resistant gloves.

**Eye**

Chemical safety goggles.

**General Hygiene Measures**

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

**Exposure Limits****Country**

Poland

Poland

Poland

**Type**

NDS

NDSCh

NDSP

**Value**

600 mg/m<sup>3</sup>

1,000 mg/m<sup>3</sup>

**Exposure Limits, RTECS****Country**

USA

USA

USA

USA

**Source**

ACGIH

ACGIH

MSHA Standard-air

**Type**

STEL

TWA

TWA

**PEL****Value**

200 PPM

100 PPM

250 PPM (950

MG/M<sup>3</sup>)

8H TWA 250

PPM (950

MG/M<sup>3</sup>)

New Zealand OEL

**Remarks:** check ACGIH TLV

**Section 9 - Physical/Chemical Properties****Appearance****Physical State**

Liquid

**Molecular Weight:** 102.13 AMU

**pH** N/A

**BP/BP Range** 87 - 89 °C

**MP/MP Range** -73 °C

**Freezing Point** N/A

**Vapor Pressure** 47 mmHg 20 °C

**Vapor Density** 3.5 g/l

**Saturated Vapor Conc.** N/A

**SG/Density** 0.872 g/cm<sup>3</sup>

**Bulk Density** N/A

<b>Odor Threshold</b>	N/A
<b>Volatile%</b>	N/A
<b>VOC Content</b>	N/A
<b>Water Content</b>	< 0.05 %
<b>Solvent Content</b>	N/A
<b>Evaporation Rate</b>	N/A
<b>Viscosity</b>	N/A
<b>Partition Coefficient</b>	N/A
<b>Decomposition Temp.</b>	N/A
<b>Flash Point °F</b>	39 °F
<b>Flash Point °C</b>	4 °C

Method: closed cup  
Method: closed cup

<b>Explosion Limits</b>	Lower: 1.8 %	37 °C
	Upper: 8 %	
<b>Flammability</b>	N/A	
<b>Autoignition Temp</b>	479 °C	
<b>Refractive Index</b>	1.377	
<b>Solubility</b>	N/A	

N/A = not available

**Section 10 - Stability and Reactivity****Stability**

Stable

Stable

**Conditions to Avoid**

Moisture, Heat.

**Materials to Avoid**

Acids, Bases, Oxidizing agents.

**Hazardous Decomposition Products****Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide.

**Hazardous Polymerization****Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Route of Exposure****Skin Contact**

Causes skin irritation.

**Skin Absorption**

May be harmful if absorbed through the skin.

**Eye Contact**

Vapor or mist is irritating to the eyes.

**Inhalation**

Vapor or mist is irritating to the mucous membranes and upper respiratory tract. May be harmful if inhaled.

**Ingestion**

May be harmful if swallowed.

**Signs and Symptoms of Exposure**

Prolonged exposure can cause: Nausea, headache, and vomiting. Narcotic effect.

**RTECS Number:** AI493000

**Toxicity Data**

Oral - Rat: 6750 mg/kg (LD50)

Inhalation - Rat: 50,600 mg/m<sup>3</sup> (LC50)

Oral - Rabbit: 6946 mg/kg (LD50)  
Skin - Rabbit: >20 ML/KG (LD50)

#### Irritation Data

Eyes - Human: 200 ppm 15M  
Skin - Rabbit: 500 mg 24H  
Remarks: Mild irritation effect

### Section 12 - Ecological Information

No data available.

### Section 13 - Disposal Considerations

#### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.  
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.  
Observe all federal, state, and local environmental regulations.

### Section 14 - Transport Information

#### DOT

Proper Shipping Name: Isopropyl acetate  
UN#: 1220  
Class: 3  
Packing Group: Packing Group II  
Hazard Label: Flammable liquid  
PIH: Not PIH

#### IATA

Proper Shipping Name: Isopropyl acetate  
IATA UN Number: 1220  
Hazard Class: 3  
Packing Group: II

### Section 15 - Regulatory Information

#### EU Additional Classification

Symbol of Danger: F XI  
Indication of Danger  
Highly Flammable. Irritant.

Risk Statements R: 11 36/37/38

Highly flammable. Irritating to eyes, respiratory system and skin.

Safety Statements S: 16 26 36

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

#### US Classification and Label Text

Indication of Danger

Flammable (USA) Highly Flammable (EU), Irritant.

Risk Statements

Irritating to eyes, respiratory system and skin.

Safety Statements

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

#### United States Regulatory Information

SARA Listed: No

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Sigma-Aldrich Corporation  
[www.sigma-aldrich.com](http://www.sigma-aldrich.com)

TSCA Inventory Item: Yes

#### Canada Regulatory Information

##### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

### Section 16 - Other Information

#### Disclaimer

For R&D use only. Not for drug, household or other uses.

#### Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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