



SIGMA-ALDRICH

### Material Safety Data Sheet

Date Printed: 07/02/2004  
Date Updated: 04/04/2004  
Version 1.20

#### Section 1 - Product and Company Information

Product Name: 2-Isopropoxyethanol, 99%  
Product Number: 107891  
Brand: Aldrich Chemical  
Company: Sigma-Aldrich  
Street Address: 3050 Spruce Street  
City, State, Zip, Country: SAINT LOUIS, MO 63103 US  
Technical Phone: 314 771 5765  
Fax: 800 325 5052  
Emergency Phone: 414 273 3850 Ext. 5996

#### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
2-ISOPROPOXYETHANOL	109-59-1	No	203-685-6	603-013-00-5

Formula: C5H12O2  
Synonyms: Dowanol eipat, Ethylene glycol isopropyl ether, Ethylene glycol, monoisopropyl ether, beta-Hydroxyethyl isopropyl ether, 2-Isopropoxyethanol (ACGIH), isopropyl cellosolve, Isopropylethylene glycol ether, Isopropyl glycol, Monoisopropyl ether of ethylene glycol

#### Section 3 - Hazards Identification

Emergency Overview  
Combustible (USA) Flammable (EU), Harmful.  
Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.  
Target organ(s): Reproductive system.

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

#### Section 4 - First Aid Measures

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

Flash Point: 109.4 °F 43 °C  
Autoignition Temp: N/A

Extinguishing Media  
Suitable  
Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting  
Protective Equipment  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s)  
Combustible liquid.

Exposure Hazard(s)  
Material  
Irritant. Harmful liquid.

#### Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill  
Evacuate area.

Procedure(s) of Personal Precaution(s)  
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up  
Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal.

#### Section 7 - Handling and Storage

Handling  
User Exposure  
Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage  
Suitable  
Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

#### Section 8 - Exposure Controls / PPE

Engineering Controls  
Safety shower and eye bath.

Personal Protective Equipment  
Eye  
Chemical safety goggles.

General Hygiene Measures  
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Exposure Limits, RTECS	Country	Source	Type	Value
	USA	ACGIH	TWA	25 PPM
	New Zealand	OEL		
Remarks: Skin Remarks: check ACGIH TLV				

## Section 9 - Physical/Chemical Properties

Appearance	Color	Form
	Colorless	Clear liquid
<b>Molecular Weight:</b>	104.15 AMU	
<b>pH</b>	N/A	
<b>BP/BP Range</b>	142 - 144 °C	
<b>MP/MP Range</b>	N/A	
<b>Freezing Point</b>	N/A	
<b>Vapor Pressure</b>	N/A	
<b>Vapor Density</b>	N/A	
<b>Saturated Vapor Conc.</b>	N/A	
<b>SG/Density</b>	0.904 g/cm <sup>3</sup>	
<b>Bulk Density</b>	N/A	
<b>Odor Threshold</b>	N/A	
<b>Volatile%</b>	N/A	
<b>VOC Content</b>	N/A	
<b>Water Content</b>	N/A	
<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>	109.4 °F	Method: closed cup
<b>Flash Point °C</b>	43 °C	Method: closed cup
<b>Explosion Limits</b>	N/A	
<b>Flammability</b>	N/A	
<b>Autoignition Temp</b>	N/A	
<b>Refractive Index</b>	1.41	
<b>Solubility</b>	N/A	

N/A = not available

## Section 10 - Stability and Reactivity

**Stability**  
**Materials to Avoid**  
Strong oxidizing agents.

**Hazardous Decomposition Products**  
**Hazardous Decomposition Products**  
Carbon monoxide, Carbon dioxide.

## Section 11 - Toxicological Information

### Route of Exposure

#### Skin Contact

Causes skin irritation.

#### Multiple Routes

Harmful if swallowed, inhaled, or absorbed through skin. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

### Target Organ(s) or System(s)

Female reproductive system. Male reproductive system.

### Signs and Symptoms of Exposure

In laboratory studies with this material, birth defects, fetotoxicity, embryolethality, anemia, bone marrow damage, hemolysis, immunosuppression, and damage to the male reproductive tissues have been observed. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**RTECS Number:** KL5075000

### Toxicity Data

Oral - Rat: 5660 UL/KG (LD50)

Inhalation - Rat: 3,100 mg/m<sup>3</sup> (LC50)

Intraperitoneal - Rat: 800 MG/KG (LD50)

Oral - Mouse: 4900 mg/kg (LD50)

Inhalation - Mouse: 1,930 ppm (LC50)

Remarks: Behavioral: Analgesia.  
Lungs, Thorax, or Respiration: Dyspnea.  
Kidney, Ureter, Bladder: Hematuria.

Intraperitoneal - Mouse: 1860 MG/KG (LD50)

Skin - Rabbit: 1600 UL/KG (LD50)

### Irritation Data

Skin - Rabbit: 20 mg 24H  
Remarks: Moderate Irritation effect

Eyes - 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

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

### DOT

**Proper Shipping Name:** Alcohols, n.o.s

**UN#:** 1987

**Class:** 3

**Packing Group:** Packing Group III

**Hazard Label:** Flammable liquid

**PIH:** Not PIH

**IATA**

Proper Shipping Name: ALCOHOLS, N.O.S.  
IATA UN Number: 1987  
Hazard Class: 3  
Packing Group: III

---

**Section 15 - Regulatory Information**

---

**EU Directives Classification**

Symbol of Danger: Xn

Indication of Danger

Harmful.

**Risk Statements** R: 20/21 36

Harmful by inhalation and in contact with skin, irritating to eyes.

**Safety Statements** S: 24/25

Avoid contact with skin and eyes.

**US Classification and Label Text**

Indication of Danger

Combustible (USA) Flammable (EU), Harmful.

**Risk Statements**

Harmful by inhalation, in contact with skin and if swallowed, 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, gloves, and eye/face protection.

**US Statements**

Target organ(s): Reproductive system.

**United States Regulatory Information****SARA Listed:** No**Notes:** This product is subject to SARA section 313 reporting requirements. This product is subject to SARA section 313 reporting requirements.**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&amp;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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

