



## Material Safety Data Sheet

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Version 1.40

### Section 1 - Product and Company Information

**Product Name** Ethyl sulfide, 98%  
**Product Number** 107247  
**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

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
DIETHYL SULFIDE	352-93-2	No	206-526-9	

**Formula** C<sub>4</sub>H<sub>10</sub>S  
**Synonyms** Diethylsulfid (Czech), Diethylthioether, Ethane, 1,1-thiois-, Ethyl monosulfide, Ethyllthioethane, Ethyl thioether, Sulfodor (Czech), 3-Thiapentane, Thioethyl ether

### Section 3 - Hazards Identification

**Emergency Overview**  
Flammable (USA) Highly Flammable (EU) Irritant,  
Irritating to skin.

**HMIS Rating**  
Health: 2 Flammability: 3 Reactivity: 0

**NFPA Rating**  
Health: 2 Flammability: 3 Reactivity: 0

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.  
Forms explosive mixtures in air.

**Flash Point:** 14 °F -10 °C

**Autoignition Temp:** N/A **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 effective. 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)**  
Vapor may travel considerable distance to source of ignition and flash back Flammable liquid.

### 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.

**Methods for Cleaning Up**  
Cover with drylime, sand, or soda ash. Place in covered containers using nonsparking 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.

### 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 fullface 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 fullface supplied air respirator.  
**Hand**  
Compatible chemical-resistant gloves.

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Eye  
Chemical safety goggles.

#### General Hygiene Measures

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

### Section 9 - Physical/Chemical Properties

Appearance	Physical State	Color	Form
	Liquid	Colorless	Clear liquid

Molecular Weight 90.19 AMU

pH	N/A	
BP/BP Range	92 °C	
MP/MP Range	-100 °C	
Freezing Point	N/A	
Vapor Pressure	105 mmHg	37.7 °C
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	0.835 g/cm <sup>3</sup>	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	14 °F	Method: closed cup
Flash Point °C	-10 °C	Method: closed cup

Explosion Limits N/A

Flammability	N/A
Autoignition Temp	N/A
Refractive Index	1.442
Solubility	N/A

N/A = not available

### Section 10 - Stability and Reactivity

Stability  
Stable  
Stable  
Materials to Avoid  
Strong oxidizing agents.

#### Hazardous Decomposition Products

##### Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Sulfur oxides, Hydrogen sulfide gas

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

May cause eye irritation.

##### Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

##### Ingestion

May be harmful if swallowed.

#### Signs and Symptoms of Exposure

Exposure can cause: Nausea, headache, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: LC7200000

#### 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

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: Diethyl sulfide

UN#: 2375

Class: 3

Packing Group: Packing Group II

Hazard Label: Flammable liquid

PIH: Not PIH

#### IATA

Proper Shipping Name: Diethyl sulphide

IATA UN Number: 2375

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 38

Highly flammable, Irritating to skin

**Safety Statements**

S: 9 16 26 33 36

Keep container in a well-ventilated place. Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing.

### US Classification and Label Text

**Indication of Danger**

Flammable (USA) Highly Flammable (EU), Irritant

**Risk Statements**

Irritating to skin

**Safety Statements**

Keep container in a well-ventilated place. Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing.

### United States Regulatory Information

**SARA Listed:** No

**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. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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