



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.30

Section 1 - Product and Company Information

Product Name Heptaldehyde, 95%
Product Number H2120
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
1-HEPTALDEHYDE, STAB.	111-71-7	No	203-898-4	

Formula C7H14O
Synonyms Enanthal, Enanthaldehyde, Enanthole, Heptaldehyde, Heptyl aldehyde, Oenanthal, Oenanthaldehyde, Oenanthic aldehyde, Oenanthol

Section 3 - Hazards Identification

Emergency Overview
Flammable. Irritant.
Irritating to eyes, respiratory system and skin.

HMS 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.

Flash Point: 95 °F 35 °C

Explosion Limits: Lower: 1.1 % Upper: 5.2 %

Autoignition Temp: N/A **Flammability:** Yes

Extinguishing Media
Suitable

Water spray, 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)

Flammable liquid. Emits toxic fumes under fire conditions.

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 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

Handle and store under inert gas.

Section 8 - Exposure Controls / PPE

Engineering Controls

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

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

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General Hygiene Measures
Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance		Color	Form
		Very faintly yellow-green	Clear liquid
Molecular Weight:		114.19 AMU	
Property	Value	At Temperature or Pressure	
pH	N/A	11 mmHg	
BP/BP Range	40 - 42 °C		
MP/MP Range	-43 °C		
Freezing Point	N/A		
Vapor Pressure	N/A		
Saturated Vapor Conc.	N/A		
SG/Density	0.818 g/cm3		
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	95 °F		
Flash Point °C	35 °C		
Explosion Limits	Lower: 1.1 % Upper: 5.2 %		
Flammability	N/A		
Autoignition Temp	N/A		
Refractive Index	1.413		
Solubility			
Solubility in Water: Slightly.			
Other Solvents: ETHANOL, DIETHYLETHER, DMSO.			
N/A = not available			

Section 10 - Stability and Reactivity

Stability	Stable
Stable	Stable.
Conditions of Instability	Protected from light.
Materials to Avoid	Oxidizing agents, Strong bases, Strong reducing 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	Causes eye irritation.
Inhalation	May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion	May be harmful if swallowed.

RTECS Number: M16900000

Toxicity Data

Oral - Rat: 3200 mg/kg (LD50)	
Remarks: Behavioral: Muscle weakness.	
Inhalation - Rat: > 18,400 mg/m3 (LC50)	
Remarks: Behavioral: Excitement.	
Lungs, Thorax, or Respiration: Respiratory stimulation.	
Gastrointestinal: Changes in structure or function of salivary glands.	
Intraperitoneal - Rat: 1600 MG/KG (LD50)	
Remarks: Behavioral: Muscle weakness.	
Gastrointestinal: Hypermotility, diarrhea.	
Oral - Mouse: 3200 mg/kg (LD50)	
Remarks: Behavioral: Muscle weakness.	
Intraperitoneal - Mouse: 400 MG/KG (LD50)	
Remarks: Behavioral: Somnolence (general depressed activity).	
Behavioral: Muscle weakness.	
Skin and Appendages: Other: Hair.	
Skin - Rabbit: > 5000 mg/kg (LD50)	

Irritation Data

Eyes - Rabbit: 0.1 ml	
Remarks: Severe 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

IATA UN Number: 3056
Hazard Class: 3
Packing Group: III

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xi

Indication of Danger

Irritant.

Risk Statements

Flammable. Irritating to eyes, respiratory system and skin.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

R: 10 36/37/38

S: 26 36

US Classification and Label Text

Indication of Danger

Flammable, Irritant.

Risk Statements

Irritating to eyes, respiratory system and skin.

Safety Statements

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

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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.