



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.80

Section 1 - Product and Company Information

Product Name 1-Hexene, 97%
Product Number 320323
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 3860 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
1-HEXENE	592-41-6	NO	209-753-1	
Formula	CH ₁₂			
Synonyms				

Section 3 - Hazards Identification

Emergency Overview
Flammable (USA) Highly Flammable (EU), Irritant,
Irritating to eyes, respiratory system and skin.
Target organ(s): Central nervous system.

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

NFPA Rating
Health: 2 Flammability: 3 Reactivity: 0

*additional chronic hazards present.
For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, do not induce vomiting; call a physician immediately.

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: -13 °F -25 °C

Explosion Limits: Lower: 1.2 %

Autoignition Temp: 253 °C **Flammability:** Yes

Extinguishing Media

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

Unsuitable

Water may be effective for cooling, but may not effect extinguishment.

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.

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

Methods for Cleaning Up
Cover with an activated carbon adsorbent, take up and place in closed containers. Transport outdoors. Ventilate area and wash spill site after material pickup is complete.

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 container 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

Government approved respirator.

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Hand
Compatible chemical-resistant gloves.
Eye
Chemical safety goggles.

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

Section 9 - Physical/Chemical Properties

Appearance	Color
Physical State	Colorless
Liquid	
Molecular Weight:	84.16 AMU
pH	N/A
BP/BP Range	62 - 63 °C
MP/MP Range	-140 °C
Freezing Point	N/A
Vapor Pressure	155 mmHg
Vapor Density	3 g/l
Saturated Vapor Conc.	N/A
SG/Density	0.673 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	-13 °F
Flash Point °C	-25 °C
Explosion Limits	Lower: 1.2 %
Method: closed cup	
Flammability	N/A
Autoignition Temp	253 °C
Refractive Index	1.388
Solubility	N/A
N/A = not available	

Section 10 - Stability and Reactivity

Stability
Stable.
Materials to Avoid
Acids, 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
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.

Target Organ(s) or System(s)
Central nervous system.

Signs and Symptoms of Exposure
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. May cause cyanosis (blue-gray coloring of skin and lips caused by lack of oxygen).

RTCS Number: MP6670000

Toxicity Data

Inhalation - Rat: 32,000 ppm (LC50)
Remarks: Behavioral (General anesthetic, Behavioral/Somnolence (General depressed activity), Lungs, Thorax, or Respiration; Other changes.

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: 1-Hexene
UN#: 2370
Class: 3
Packing Group: Packing Group II
Hazard Label: Flammable liquid
PIH: Not PIH
IATA
Proper Shipping Name: 1-Hexene
IATA UN Number: 2370
Hazard Class: 3
Packing Group: II

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: F Xn

Indication of Danger

Highly Flammable, Harmful

Risk Statements

R: 11 65

Highly flammable, Harmful: may cause lung damage if swallowed.

Safety Statements

S: 9 16 23 29 62

Keep container in a well-ventilated place. Keep away from sources of ignition - no smoking. Do not breathe vapor. Do not empty into drains. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

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 container in a well-ventilated place. Keep away from sources of ignition - no smoking. Do not breathe vapor. Do not empty into drains. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

US Statements

Target organ(s): Central nervous system.

United States Regulatory Information
SARA Listed: No

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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.