

## Safety Data Sheet

# Hexanes

### 1. Identification

#### Product identifier

**Product Name** Hexanes, ACS  
**Product Code(s)** CP-C1490, CP-E1490, CP-T1490  
**Synonyms** Hexane  
**UN number or ID number** UN1208  
**Manufacturer:** ChemPure Brand Chemicals  
 39103 Warren Road  
 Westland, Michigan 48185, USA  
 www.chempurebrand.com  
  
**For More Information Call:** 734-884-4773 ( Monday - Friday 8:00 am - 4:30 pm )

#### Recommended use of the chemical and restrictions on use

**Recommended use** Industrial use  
 Laboratory use  
 Industrial Manufacturing (all)  
  
**Restrictions on use** No information available

#### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC: 1-800-424-9300 for US / 703-527-3887 outside US

**Emergency Telephone** 911

### 2. Hazard(s) identification

#### Classification

Skin corrosion/irritation	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration hazard	Category 1
Flammable liquids	Category 2

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### **Hazards not otherwise classified (HNOC)**

Not applicable

### **Label elements**

#### **Danger**

#### **Hazard statements**

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

H361 - Suspected of damaging fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H225 - Highly flammable liquid and vapor.



#### **Precautionary Statements - Prevention**

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242 - Use only non-sparking tools

P243 - Take action to prevent static discharges

P235 - Keep cool

#### **Precautionary Statements - Response**

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P321 - Specific treatment (see First-Aid Measures on SDS)

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P363 - Wash contaminated clothing before reuse

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 - Do NOT induce vomiting

P370 + P378 - In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### **Precautionary Statements - Storage**

P405 - Store locked up

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary Statements - Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

#### **Other information**

May be harmful in contact with skin. Toxic to aquatic life with long lasting effects.

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## **3. Composition/information on ingredients**

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## **Mixture**

### **Synonyms**

Hexane.

Chemical name	CAS No	Weight-%	Formula	Molecular Weight
n-Hexane	110-54-3	45-60	C <sub>6</sub> H <sub>14</sub>	86.18 g/mol
Hexane, mixture of isomers	-	15-40	-	-
Cyclohexane	110-82-7	0-3	C <sub>6</sub> H <sub>12</sub>	84.16 g/mol

## **4. First-aid measures**

### **Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed pulmonary edema may occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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## **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b> <b>Large Fire</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire

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extinguishing water must be disposed of in accordance with local regulations.

**Hazardous combustion products** Carbon oxides.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** Yes.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

**Other information** Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

### **Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up** Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## **7. Handling and storage**

### **Precautions for safe handling**

**Advice on safe handling** Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
n-Hexane	TWA: 50 ppm S*	TWA: 500 ppm TWA: 1800 mg/m <sup>3</sup> (vacated) TWA: 50 ppm (vacated) TWA: 180 mg/m <sup>3</sup>	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m <sup>3</sup>
Hexane, mixture of isomers	-	(vacated) TWA: 500 ppm (vacated) TWA: 1800 mg/m <sup>3</sup> (vacated) STEL: 1000 ppm (vacated) STEL: 3600 mg/m <sup>3</sup>	-
Cyclohexane	TWA: 100 ppm	TWA: 300 ppm TWA: 1050 mg/m <sup>3</sup> (vacated) TWA: 300 ppm (vacated) TWA: 1050 mg/m <sup>3</sup>	IDLH: 1300 ppm TWA: 300 ppm TWA: 1050 mg/m <sup>3</sup>

#### Biological occupational exposure limits

Chemical name	ACGIH
n-Hexane	0.5 mg/L - urine (2,5-Hexanedione without hydrolysis) - end of shift
Cyclohexane	50 mg/g creatinine - urine (1,2-Cyclohexanediol) - end of shift at end of workweek

### Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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### Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Colorless

<b>Odor</b>	Gasoline-like, or petroleum like	
<b>Odor threshold</b>	130 ppm	
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	No data available	None known
<b>pH (as aqueous solution)</b>	7.0	
<b>Melting point / freezing point</b>	-95 °C / -139.0 °F	
<b>Initial boiling point and boiling range</b>	69 °C / 156.2 °F	
<b>Flash point</b>	-22 °C / -7.6 °F	Close cup
<b>Evaporation rate</b>	15.8	None known
<b>Flammability</b>	Flammable	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	7.5%	
<b>Lower flammability or explosive limits</b>	1.15%	
<b>Vapor pressure</b>	341.1 hPa at 37C	256mmHg at 100F
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	0.65 - 0.67	
<b>Water solubility</b>	Slightly soluble hot water	Soluble in diethyl ether, acetone.
<b>Solubility(ies)</b>	No data available	
<b>Partition coefficient</b>	log POW: 3.90 - 4.11 2	
<b>Autoignition temperature</b>	25C (437 F)	
<b>Decomposition temperature</b>		
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b><u>Other information</u></b>		
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>Softening point</b>	No information available	
<b>Molecular weight</b>	86.18g/mol	
<b>VOC content</b>	No information available	
<b>Liquid Density</b>	0.66 g/mL	
<b>Bulk density</b>	No information available	

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Heat, flames and sparks. Extremes of temperature and direct sunlight.
<b>Incompatible materials</b>	Oxidizing agent.
<b>Hazardous decomposition products</b>	Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. Aspiration into lungs can
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produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

**Eye contact** Specific test data for the substance or mixture is not available. May cause irritation.

**Skin contact** Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

**Ingestion** Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### **Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

#### **Acute toxicity**

##### **Numerical measures of toxicity**

##### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
n-Hexane	= 25 g/kg ( Rat )	= 3000 mg/kg ( Rabbit )	= 48000 ppm ( Rat ) 4 h
Hexane, mixture of isomers	= 15000 mg/kg ( Rat )	-	-
Cyclohexane	= 12705 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 32880 mg/m <sup>3</sup> ( Rat ) 4 h

#### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**STOT - single exposure** May cause drowsiness or dizziness.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Central nervous system, Respiratory system, Eyes, Skin, Peripheral Nervous System (PNS).

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
n-Hexane	-	LC50: 2.1 - 2.98mg/L (96h, Pimephales promelas)	-	-
Cyclohexane	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: 3.96 - 5.18mg/L (96h, Pimephales promelas) LC50: 23.03 - 42.07mg/L (96h, Pimephales promelas) LC50: 24.99 - 44.69mg/L (96h, Lepomis macrochirus) LC50: 48.87 - 68.76mg/L (96h, Poecilia reticulata)	-	-

**Persistence and degradability** No information available.

**Bioaccumulation**

### Component Information

Chemical name	Partition coefficient
n-Hexane	4
Cyclohexane	3.44

**Other adverse effects** No information available.

## 13. Disposal considerations

### Disposal methods

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**US EPA Waste Number** D001.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. Transport information

**DOT**  
UN number or ID number UN1208  
Proper shipping name Hexanes  
Transport hazard class(es) 3  
Packing group II  
DOT Marine Pollutant P

**TDG** Regulated



UN number or ID number UN1208  
 UN proper shipping name Hexanes  
 Transport hazard class(es) 3  
 Packing group II

**ICAO (air)** Regulated  
 UN number or ID number UN1208  
 UN proper shipping name Hexanes  
 Transport hazard class(es) 3  
 Packing group II

**IATA** Regulated  
 UN number or ID number UN1208  
 UN proper shipping name Hexanes  
 Transport hazard class(es) 3  
 Packing group II

**IMDG** Regulated  
 UN number or ID number UN1208  
 UN proper shipping name Hexanes  
 Transport hazard class(es) 3  
 Packing group II

## 15. Regulatory information

### International Inventories

**TSCA** Complies.  
**DSL/NDL** Complies.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
n-Hexane 110-54-3	1.0
Cyclohexane 110-82-7	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Cyclohexane	1000 lb	-	-	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
n-Hexane	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Cyclohexane	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
n-Hexane 110-54-3	Male Reproductive

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
n-Hexane	X	X	X
Cyclohexane	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 2	<b>Flammability</b> 3	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 2 *	<b>Flammability</b> 3	<b>Physical hazards</b> 0	<b>Personal protection</b> X
<i>Chronic Hazard Star Legend</i>		* = Chronic Health Hazard		

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)

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Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 2025-May-06  
**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**