

# Hexanes

**This SDS is valid for all grades**

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Hexanes

**Synonyms/Generic Names:** None

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Alliance Chemical  
 204 S. Edmond St.  
 Taylor, TX 76574

**For More Information:** 512-365-6838 (Monday-Friday 8:00-4:00)  
[www.alliancechemical.com](http://www.alliancechemical.com)

**In Case of Emergency Call:** CHEMTEL (800) 255-3924 (24 Hours/Day, 7 Days/Week)

## 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Flammable liquid, Target organ effect, Irritant, Toxic by ingestion, Teratogen

**Target Organs:** Peripheral nervous system, Kidney, Testes

**Signal Words:** Danger

**Pictograms:**



**GHS Classification:**

Flammable liquids	Category 2
Skin irritation	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity – single exposure	Category 3
Specific target organ toxicity – repeated exposure, Inhalation	Category 2
Aspiration hazard	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H225	Highly flammable liquid and vapor.
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 if ingested.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P331	Do NOT induce vomiting.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

**Potential Health Effects**

<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Ingestion</b>	Toxic if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage.

**NFPA Ratings**

<b>Health</b>	2
<b>Flammability</b>	3
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	2
<b>Fire</b>	3
<b>Reactivity</b>	0
<b>Personal</b>	Not Available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
n-Hexanes	45-60	110-54-3			
Hexane Isomers	15-40	Mixture	Mixture	Mixture	Mixture
Cyclohexane	0-3	110-82-7			

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## 4. FIRST-AID MEASURES

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<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

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## 5. FIRE-FIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far away as possible. Use very large quantities of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides) under fire conditions. Vapor can cause flash fire. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Keep away from sources of ignition. No smoking. Take measure to prevent the buildup of electrostatic charge.

### Conditions for safe storage, including any incompatibilities

Store in tightly closed, containers in a cool, dry, well ventilated area. Keep away from heat, sparks and flame. Maintain adequate ventilation. Ground all equipment containing this material. Keep away from incompatible materials (see section 10 for incompatibilities).

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Occupational exposure controls:** Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
n-Hexane	50 ppm 176 mg/m <sup>3</sup>	TLV	ACGIH
	500 ppm 1800 mg/m <sup>3</sup>	PEL	OSHA
	50 ppm 180 mg/m <sup>3</sup>	REL	NIOSH
Hexane Isomer	500 ppm	TLV	ACGIH
Cyclohexane	100 ppm	TLV	ACGIH
	300 ppm 1050 mg/m <sup>3</sup>	PEL	OSHA
	300 ppm 1050 mg/m <sup>3</sup>	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Face shield and safety glasses.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. Handle with gloves.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear liquid
Odor	Light hydrocarbons
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-108 °C (-162 °F)
Initial boiling point and boiling range	60 °C (140°F)
Flash point	Closed cup: -18 °C (-0.4°F)
Evaporation rate	8.12
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Lower: 1.2% Upper: 7.3%
Vapor pressure	17.7 kPa (133 mm Hg) at 20 °C
Vapor density	3.0 (air = 1.0)
Relative density	0.67
Solubility (ies)	Very slightly soluble in cold water.
Partition coefficient: n-octanol/water	Not Available

Auto-ignition temperature	232 °C (450°F)
Decomposition temperature	Not Available
Viscosity	Kinematic: 0.46 cSt

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Keep away from heat, flame and sparks. Extremes of temperature and direct sunlight.
<b>Incompatible Materials</b>	Oxidizers
<b>Hazardous Decomposition Products</b>	Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

*n*-Hexane

<b>Skin</b>	LD50 Dermal – rabbit – >3350 mg/kg
<b>Eyes</b>	Not Available
<b>Respiratory</b>	LC50 Inhalation – rat – 4 hours – 48,000 ppm
<b>Ingestion</b>	LD50 Oral – rat – 28,705 mg/kg

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Eyes</b>	Redness, blurred vision, tearing.
<b>Inhalation</b>	Lung irritation, chest pain, pulmonary edema, giddiness, dizziness, drowsiness, headache, unconsciousness.
<b>Skin</b>	Defatting, dermatitis, drying, redness.
<b>Ingestion</b>	Gastrointestinal discomfort, central nervous system depression, slurred speech, slowed reaction time, headache, unconsciousness.

<b>Chronic Toxicity</b>	Carcinogenicity - Rat – Inhalation Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic Effects: Testicular tumors.
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Ingestion - May cause damage to organs through prolonged or repeated exposure. - Nervous system
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility.
<b>Aspiration Hazard</b>	May be fatal if swallowed and enters airways.

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

#### *n*-Hexane

<b>Aquatic Vertebrate</b>	LC50 - Pimephales promelas (fathead minnow) - 2.5 mg/l - 96.0 h
<b>Aquatic Invertebrate</b>	EC50 - Daphnia magna (Water flea) - 3,878.00 mg/l - 48 h
<b>Terrestrial</b>	Not Available
<b>Algae</b>	EC50 - Chlorella vulgaris (Fresh water algae) - 12,840.00 mg/l - 3 h EC50 - SKELETOMA - 0.30 mg/l - 8 h

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Toxic to aquatic life with long lasting effects.

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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US DOT	UN1208, Hexanes, 3, pg II
TDG	UN1208, HEXANES, 3, PG II
IMDG	UN1208, HEXANES, 3, PG II
Marine Pollutant	Yes
IATA/ICAO	UN1208, Hexanes, 3, pg II

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: n-Hexane
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: n-Hexane, Cyclohexane
WHMIS Canada	Class B-2: Flammable and combustible liquid- Flammable liquid Class D-2A: Poisonous and infectious material- Other effects- Very toxic Class D-2B: Poisonous and infectious material- Other effects- Toxic

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## 16. OTHER INFORMATION

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Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.