

## Section 1 Chemical Product and Company Information

Page E1 of E2



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**CHEMTREC 24 Hour Emergency**  
**Phone Number (800) 424-9300**  
For laboratory use only.  
Not for drug, food or household use.

<b>Product</b>	<b>PENTANE</b>
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<b>Synonyms</b>	n-Pentane / Amyl Hydride
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## Section 2 Hazards Identification

**Signal word:** DANGER**Pictograms:** GHS02 / GHS07 / GHS08 / GHS09**Target organs:** Lungs, Central nervous system, Liver, Kidneys.**GHS Classification:**

Flammable liquid (Category 2)

Aspiration hazard (Category 1)

STOT-SE (Category 3)

Aquatic toxicity, chronic (Category 2)

**GHS Label information: Hazard statement:**

H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H336: May cause drowsiness or dizziness.

H411: Toxic to aquatic life with long lasting effects.

**Precautionary statement:**

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233: Keep container tightly closed.

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

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing mist/vapours/spray.

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 or doctor.

P331: Do NOT induce vomiting.

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.

P312: Call a POISON CENTER or doctor if you feel unwell.

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

P391: Collect spillage.

P403+P235: Store in a well-ventilated place. Keep cool.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

## Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Pentane	109-66-0	100%	203-692-4

## Section 4 First Aid Measures

**INGESTION:** ASPIRATION HAZARD. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

## Section 6 Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, well-ventilated area away from incompatible substances. Keep away from ignition sources.

## Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Pentane, all isomers	TWA: 600 ppm / 1770 mg/m <sup>3</sup>	TWA: 1000 ppm / 2950 mg/m <sup>3</sup>	TWA: 120 ppm / STEL: C 610 ppm

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical &amp; Chemical Properties

<b>Appearance:</b> Clear, colorless liquid	<b>Evaporation rate ( Butyl acetate = 1):</b> 8.1	<b>Partition coefficient:</b> (n-octanol / water): Log Pow: 3.39
<b>Odor:</b> Gasoline-like odor	<b>Flammability (solid/gas):</b> Data not available	<b>Auto-ignition temperature:</b> 309°C (588°F)
<b>Odor threshold:</b> Data not available	<b>Explosion limits: Lower / Upper:</b> 1.5% / 7.8%	<b>Decomposition temperature:</b> Data not available
<b>pH:</b> Data not available	<b>Vapor pressure (mm Hg):</b> 56.8 kPa @ 20°C	<b>Viscosity:</b> Data not available
<b>Melting / Freezing point:</b> -130°C (-202°F)	<b>Vapor density (Air = 1):</b> 2.49	<b>Molecular formula:</b> C <sub>5</sub> H <sub>12</sub>
<b>Boiling point:</b> 36°C (97°F)	<b>Relative density (Specific gravity):</b> 0.626 g/cm <sup>3</sup>	<b>Molecular weight:</b> 72.15
<b>Flash point:</b> -40°C (-40°F) CC	<b>Solubility(ies):</b> Very slightly soluble in water	

## Section 10 Stability &amp; Reactivity

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures, heat, sparks, open flame and other sources of ignition.

**Incompatible materials:** Strong oxidizers.

**Hazardous decomposition products:** Carbon oxides.

## Section 11 Toxicological Information

**Acute toxicity:** Oral-mouse LD50: 5000 mg/kg ; Inhalation-rat LC50: 364,000 mg/m<sup>3</sup>/4H ; Dermal-rabbit LD50: 3000 mg/kg

**Skin corrosion/irritation:** Data not available

**Serious eye damage/irritation:** Data not available

**Respiratory or skin sensitization:** Data not available

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**STOT-repeated exposure:** Data not available

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

**Potential health effects:**

Inhalation: Inhalation may cause dizziness, drowsiness, nausea, vomiting, headache, and unconsciousness.

Ingestion: See inhalation symptoms. May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

Skin: Contact with skin causes irritation and/or defatting on prolonged contact.

Eyes: Contact causes irritation, redness and tearing.

**Signs and symptoms of exposure:** Aspiration into lungs may result in chemical pneumonitis. Substance may cause effects on central nervous system. Exercise appropriate procedures to minimize potential hazards.

**Additional information:** RTECS #: RZ9450000

## Section 12 Ecological Information

**Toxicity to fish:** Oncorhynchus kisutch (fish, fresh water) 100 ppm/96 hours - No mortality observed at highest concentration tested

**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (Crustacea), EC50 = 9.74 mg/L/48 hours

**Toxicity to algae:** Other algae EC50 = 1 mg/L/8 hours

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** Toxic to aquatic life with long lasting effects.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information (US DOT / CANADA TDG)

**UN/NA number:** UN1265

**Shipping name:** Pentane

**Hazard class:** 3

**Packing group:** II

**Reportable Quantity:** No

**Marine pollutant:** No

**Exceptions:** Limited quantity equal to or less than 1 L

**2012 ERG Guide #** 128

## Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Pentane	Listed	Not listed	Not listed	Listed	Not listed	 B2

## Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.