

Safety Data Sheet

Heptane

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Heptane
Recommended Use: Science education applications
Synonyms: N/A
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

GHS Classification:

Aspiration Hazard Category 1, Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3, Hazardous to the aquatic environment - Acute Category 3, Hazardous to the aquatic environment - Chronic Category 3

Acute Toxicity Oral Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Dermal Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Gas Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Vapor Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Heptane	142-82-5	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Section 5 Firefighting Procedures

Safety Data Sheet

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Vapors may travel back to ignition source. Closed Containers exposed to heat may explode.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	<p>Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid breathing dust/fume/gas/mist/vapors/spray. Ventilate the contaminated area. Evacuate the area promptly. Isolate area. Keep unnecessary personnel away. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation.</p> <p>Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. A large(uncontrolled) release should only be handled by a specially trained spill brigade or by a qualified contractor. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.</p>
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Section 7 Handling and Storage

Handling:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Keep container tightly closed in a cool, well-ventilated place. Keep away from oxidizing materials and strong acids.
Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.
Storage Code:	Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Heptane	400 ppm TWA (listed under Heptane, all isomers)	500 ppm STEL (listed under Heptane, all isomers)	500 ppm TWA; 2000 mg/m ³ TWA	N/A

Control Parameters	
Engineering Measures:	Local exhaust ventilation, process enclosures, or other engineering controls are necessary when handling or using this product to avoid overexposure. Vapor concentrations should be monitored and controlled in accordance with 29 CFR 1910.10.
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.
Respiratory Protection:	No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.
Respirator Type(s):	NIOSH approved air purifying respirator with organic vapor/acid gas cartridge and dust/mist filter.
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.

Safety Data Sheet

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:

Nitrile

Section 9

Physical Data

Formula: CH₃ (CH₂)₅CH₃

Molecular Weight: 100.21

Appearance: Colorless Liquid

Odor: Strong Gasoline-like

Odor Threshold: No data available

pH: No data available

Melting Point: -91 C

Boiling Point: 98 C

Flash Point: -4 C

Flammable Limits in Air: LEL 1.05% UEL 6.70%

Vapor Pressure: 40 at 20°C

Evaporation Rate (BuAc=1): 4.3

Vapor Density (Air=1): 3.5

Specific Gravity: 0.684

Solubility in Water: Practically Insoluble

Log Pow (calculated): 4.66

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

Percent Volatile by Volume: 100

Section 10

Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Sparks, open flame, other ignition sources, and elevated temperatures.

Incompatible Materials:

Strong oxidizing agents

Hazardous Polymerization:

Will not occur

Section 11

Toxicity Data

Routes of Entry

Inhalation and ingestion.

Symptoms (Acute):

Respiratory disorders, Central Nervous System disorders,

Delayed Effects:

No data available

Acute Toxicity:

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CAS Number

142-82-5

Oral LD50

Not determined

Dermal LD50

Not determined

Inhalation LC50

Inhalation LC50
(4h) Rat Not
determined
103000 MG/CU M

Carcinogenicity:

Chemical Name

No data available

CAS Number

142-82-5

IARC

Not listed

NTP

Not listed

OSHA

Not listed

Chronic Effects:

Mutagenicity:

No evidence of a mutagenic effect.

Teratogenicity:

No evidence of a teratogenic effect (birth defect).

Sensitization:

No evidence of a sensitization effect.

Reproductive:

No evidence of negative reproductive effects.

Target Organ Effects:

Acute:

See Section 2

Chronic:

N/A

Section 12

Ecological Data

Overview:

Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Highly/very toxic to fish and other water organisms.

Mobility:

No data

Persistence:

No data

Safety Data Sheet

Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

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CAS Number 142-82-5
Eco Toxicity
96 HR LC50 CICHLID FISH 375 MG/L
24 HR EC50 DAPHNIA MAGNA > 10 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name: UN1206, Heptanes, 3, II
Air - IATA Proper Shipping Name: UN number: 1206 Class: 3 Packing group: II Proper shipping name: Heptanes

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	142-82-5	No	No	No	No	No

Section 16 Additional Information

Revised: 09/03/2014

Replaces: 08/27/2014

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health