

HEPTANE

Revised: 8/18/21

1 IDENTIFICATION

Product Name: HEPTANE

Product Code :4311005

Recommended use of the chemical and restrictions on use:Industrial applications

Hubbard-Hall Inc.

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Emergency Phone Number

CHEMTREC: 1 (800) 424-9300

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2 HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Category: Flammable Liquids Hazard Category 2

Skin Corrosion/Irritation Hazard Category 2

Specific Target Organ Toxicity (Single Exposure) Hazard Category 3

Aspiration Hazard Category 1

Acute Aquatic Toxicity-Category 1

Chronic Aquatic Toxicity-Category 1

Hazard Statements: Highly flammable liquid and vapor.

Causes skin irritation.

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

Very toxic to aquatic life with long lasting effects.

Prevention: 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, and lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear rubber gloves, goggles and chemical protective clothing.

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Use only outdoors or in well ventilated area.

Wash skin thoroughly after handling.

Avoid releases to the environment

Response: If in eyes: Wash cautiously with water for several minutes. Remove contact lenses if present and easy to do Continue rinsing. If eye irritation persists, get medical attention

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Get medical advice/attention if you feel unwell.

If swallowed: Immediately call poison center or doctor.

Do NOT Induce vomiting.

In case of fire: Use water spray (fog), foam, dry chemicals, carbon dioxide, or other type of vapor producing extinguisher.

If on skin (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower .

Collect spillage

Storage: Store in a well ventilated place. Keep cool .

Store locked up.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Heptane	-	142-82-5	30-45%
Methylcyclohexane	-	108-87-2	0-20%
Hexane, 2-Methyl-	-	591-76-4	0-15%
3-Methylhexane	-	589-34-4	0-30%
3-Ethylpentane	-	617-78-7	0-5%

4 FIRST AID

After Inhalation:

Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

After Skin Contact:

Remove contaminated clothing and shoes. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.

After Eye Contact:

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

After Ingestion:

Call a physician or poison control center immediately. Do not induce vomiting. Immediately rinse mouth and drink plenty of water. If vomiting occurs, keep head low so that the stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person. Do not use mouth-to-mouth method if victim ingested the substance.

Most Important Symptoms/Effects

Inhalation:

Breathing high vapor concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

Eye:

This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists. Symptoms include stinging, watering, redness, and swelling.

Skin:

This product can cause mild, transient skin irritation. The severity of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).

Ingestion:

If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system (CNS) effects. Due to its light viscosity, there is a danger of aspiration into the lungs during vomiting. Aspiration can result in severe lung damage or death.

Note to Physicians:

INHALATION: Overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required. **INGESTION:** This material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5 FIRE FIGHTING MEASURES

**Suitable and Unsuitable
extinguishing media:**

Water fog. Foam. Dry Chemical powder. Carbon Dioxide (CO₂). Use extinguishing agent suitable for type of surrounding fire. Do not use solid water stream as it may scatter and spread fire. Do not use halogenated extinguishing agents.

**Specific hazards arising from
the chemical:**

Flammable or Combustible Liquid! This material releases vapors when heated above ambient temperatures. Vapors can cause a flash fire. Vapors can travel to a source of ignition and flashback. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. Use only with adequate ventilation. If container is not properly cooled, it can rupture in the heat of a fire.

**Special protective equipment
and precautions for firefighter**

Firefighters must use full bunker gear including NIOSH approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities of potential fire and explosion hazard if liquid enters sewers or waterways.

6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions,
Protective Equipment, &
Emergency Proc**

For large spills, secure the area and control access. Dike far ahead of liquid spill to ensure complete collection. Water mist may be used to reduce or disperse vapors; but, it may not prevent ignition in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard. Verify responders are properly HAZWOPER trained and wearing appropriate respiratory equipment and fire resistant protective clothing during clean up operations. In an urban area, clean up as soon as possible; in natural environments, cleanup on advice from specialists. Pick up free liquid for recycle and/or disposal if it can be accomplished safely with explosion-proof equipment. Collect any excess material with absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all laws and regulations.

7 HANDLING AND STORAGE

Precautions for safe handling:

A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Avoid contact with oxidizing agents. DO NOT breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. DO NOT take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment as necessary, to remove material residues. Follow proper entry procedures, including compliance with 29 CFR 1910.146 prior to entering confined spaces such as tanks or pits. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Use appropriate respiratory protection when concentrations exceed any established occupational exposure level (see Section 8). Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.

Non-equilibrium conditions may increase the fire hazard associated with this product. A static electrical charge can accumulate when this product is flowing through pipes, nozzles or filters when it is agitated. A static spark can ignite accumulated vapors particularly during dry weather conditions. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges.

Carefully review operations that may increase risk associated with static electricity such as tank and container filling, tank cleansing, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to ventilation, inerting and/or reduction of transfer velocities. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigation efforts including bonding and grounding. Always keep nozzle in contact with the container throughout the loading process.

Do NOT fill any portable container in or on a vehicle. Do NOT use compressed air for filling, discharging or other handling operations. Product container is NOT designed for elevated pressure. DO NOT pressurize, cut, weld, braze solder, drill, or grind containers. Do NOT expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain residues which can ignite with explosive force. Observe label precautions.

**Conditions for safe storage,
inc any incompatibilities:**

Keep container tightly closed. Store in a cool, dry, well ventilated area. Store only in approved containers. Do not store with oxidizing agents. Do not store at elevated temperatures or in direct sunlight. Protect containers against physical damage. Head spaces in tanks and other containers may contain a mixture of air and vapor in the flammable range. Vapor may be ignited by static discharge. Storage area must meet OSHA requirements and applicable fire codes. Additional information regarding the design and control of hazards associated with handling and storage of flammable and combustible liquids may be found in professional and industrial documents including,

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Heptane	ACGIH	400 ppm	500 ppm

ACGIH - American Control of Governmental Hygienists
OSHA - Occupational Safety and Health Administration

Ventilation:

Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit(s) (PEL) or the ACGIH threshold Limit Values (TLV) Time Weight Average (TWA).

Respiratory Protection:	A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Other:	Insure that eye wash and safety shower are proximal to the work station.
Protective Gloves:	Rubber gloves
Eye Protection:	Wear chemical safety goggles.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colorless liquid
Odor:	Characteristic hydrocarbon odor.
Odor Threshold:	N/A
PH:	4-7
Melting Point/Freezing Point:	-131 °F
Initial Boiling Point and Boiling Range:	201-210 °F
Flash Point:	16 °F
Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Upper/Lower flammability or explosive limits:	1.1-7.0 %V
Vapor Pressure:	36 mm Hg at 20 °C
Vapor Density:	>1 (Air=1)
Relative Density:	0.7
Solubility (ies):	not soluble
Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	509 °F
Decomposition Temperature:	N/A
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.
Hazardous Decomposition Products:	Carbon Dioxide, carbon monoxide, smoke, fumes, and/or unburned hydrocarbons

11 TOXICOLOGICAL INFORMATION

Oral Administration:	LD50(Rat)->5840 mg/kg
Inhalation:	LC50(Rat)->23.3 mg/L 4 h
Dermal administration:	LD50(Rat)->2920kg
Irritation:	May cause irritation to skin and eyes.
Cancer Hazard:	Not listed by IARC, NTP, OSHA, ACGIH

12 ECOLOGICAL INFORMATION

Abiotic degradability:	No data available
Biotic degradability:	No data available
Bioaccumulation potential:	No data available

Other adverse effects(such as hazardous to the ozone layer): Harmful to aquatic life

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Proper Shipping Name: HEPTANES,
Transport Hazard Class (es): 3
Packing Group: II
ERG: 128

15 REGULATORY INFORMATION

HMIS: Health: 1 Flammability: 3 Reactivity: 0

Sara Hazard Classification The chemicals in this product are not subject to SARA Title III , Section 313 Reporting Requirements.
Proposition 65 No Proposition 65 listed components in this formula
TSCA Inventory Status All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements .

16 OTHER INFORMATION

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.