

SAFETY DATA SHEET

HEPTANE

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SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	142-82-5
EC number:	205-562-8
1.2 SYNONYMS:	• Heptane • n-heptane

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Flammable liquids (Category 2) Aspiration hazard (Category 1) Skin corrosion/irritation (Category 2) Specific target organ toxicity – Single exposure (Category 3) Hazardous to the aquatic environment – Acute Hazard (Category 1) Hazardous to the aquatic environment – Chronic Hazard, (Category 1)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H225: Highly flammable liquid and vapour. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness.

	H410: Very toxic to aquatic life with long lasting effects
Precautionary Statements:	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. P260: Do not breathe dust/fume/gas/mist/vapours/spray. P264: Wash hands, forearms and face thoroughly after handling.
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, dizziness, headaches, nausea, and, with prolonged exposure, central nervous system depression or liver and kidney damage
Ingestion:	can cause nausea, vomiting, abdominal pain, dizziness, and potentially lead to central nervous system depression or damage to the gastrointestinal tract.
Skin Contact:	can cause irritation, dryness, redness, and defatting of the skin, potentially leading to dermatitis with prolonged or repeated exposure.
Eye contact:	can cause irritation, redness, tearing, and a burning sensation, with potential for more severe damage if exposure is prolonged.
Chronic Exposure:	can lead to neurological effects such as dizziness, headaches, memory impairment, and coordination problems, as well as potential liver and kidney damage.
Aggravation of pre-existing conditions:	can aggravate pre-existing conditions such as respiratory disorders (e.g., asthma) and skin

	conditions (e.g., dermatitis), as well as potentially worsen neurological conditions in sensitive individuals.
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 142-82-5 HEPTANE
Identification number(s):	EC number: 205-562-8

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Do not apply mouth-to-mouth resuscitation. Consult a physician
After skin contact:	Remove contaminated clothing. Wash with soap and water. Rinse skin with water/shower. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. . Remove contact lenses, if present and easy to do. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Give little of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	acute symptoms like respiratory distress, skin irritation, nausea, and eye damage, with delayed effects such as chronic lung disease, neurological impairment, and an increased risk of cancer.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam. Dry chemical.
5.2 Special hazards arising from the substance or mixture:	Highly flammable liquid and vapour. Toxic fumes may be released. Carbon oxides (CO, CO ₂)
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device . Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Take precautions as Residual vapours are flammable. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. . Provide for a tub to collect spills.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	liquid
Colour:	colourless
Odour:	Strong odour resembling as petroleum or gasoline.
pH-value:	No data available
Melting point/Melting range:	-91°C
Boiling point/Boiling range:	98°C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	285°C
Decomposition temperature:	No data available
Self-igniting:	Not applicable
Flash point:	-4°C
Danger of explosion:	Not applicable
Explosion limits: Lower:	1.1%
Explosion limits: Upper:	6.7%

Vapour pressure:	6.09 kPa at 25°C
Density at 20 °C:	0.69
Relative density:	0.69
Vapour density:	3.5
Evaporation rate:	4
Solubility in / Miscibility with- water at 20 °C:	Insoluble
Partition coefficient:(n- octanol/water)	4.66
Viscosity:	0.641 mm ² /s at 20°C

SECTION 10: Stability and reactivity

10.1 Reactivity	Highly flammable liquid and vapour
10.2 Chemical stability	No data available
10.3 Possibility of hazardous reactions	No data available
10.4 Conditions to avoid	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
10.5 Incompatible materials	Strong oxidising agents.
10.6 Hazardous decomposition products	Oxides of carbon.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : 5000 mg/kg LD50 (Dermal, Rabbit) : 2000 mg/kg LC50 (Inhalation Rat) : 103 mg/m ³
Skin corrosion/Irritation:	Causes severe skin irritation and burns
Serious eye damage/irritation:	Causes severe irritation and burns of the eyes.
Respiratory damage/irritation:	Harmful if inhaled. Causes chemical burns to the respiratory tract.

Ingestion:	Harmful if swallowed. Causes gastrointestinal tract burns
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	May be fatal if swallowed and enters airways.
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Moderately biodegradable.

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): 5,738 mg/l EC50(daphnia magna): 1.5mg/l LOEC(daphnia magna): 0.32 mg/l (21d) NOEC(daphnia magna): 0.17 mg/l (21d)
12.2 Persistence and degradability:	moderately biodegradable.
12.3 Bioaccumulative potential:	Low
12.4 Mobility in soil:	High mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Soap and Water, Absorbent materials, Detergents or degreasers, Alcohol-based cleaners or acetone.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	UN 1206
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	HEPTANES
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	3
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	Transport by sea Limited quantities (IMDG) : 1 L Excepted quantities (IMDG) : E2 Packing instructions (IMDG) : P001 IBC packing instructions (IMDG) : IBC02 Tank instructions (IMDG) : T4 Tank special provisions (IMDG) : TP2 EmS-No. (Fire) : F-E EmS-No. (Spillage) : S-D Stowage category (IMDG) : B Properties and observations (IMDG) : Colourless, volatile liquids. Explosive limits: 1.1% to 6.7% n-HEPTANE: flashpoint -4°C c.c. Immiscible with water. Irritating to skin, eyes and mucous membranes.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substance as flammable liquids.
Named dangerous substances:	This substance is listed in the part 2 annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.