

**Heptane****H2198-1L**

Version 1.1

Revision Date 08/27/2021

Print Date 05/15/2023

**SECTION 1. IDENTIFICATION**

Product name : Heptane

Number : 000000020373

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.  
1953 South Harvey Street  
Muskegon, MI 49442

For more information call : 1-800-368-0050  
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or**  
: **+1-703-527-3887**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : liquid

Color : colourless

Odor : characteristic

**Classification of the substance or mixture**

Classification of the substance or mixture : Flammable liquids, Category 2  
Skin irritation, Category 2  
Specific target organ toxicity - single exposure, Category 3,  
Central nervous system  
Aspiration hazard, Category 1

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## GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause drowsiness or dizziness.

Precautionary statements

: **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/ lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER/ doctor if you feel unwell.  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
Keep cool.  
Store locked up.

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**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity**

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, or OSHA.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Formula : C<sub>7</sub>H<sub>16</sub>

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Heptane	142-82-5	100.00 %

**SECTION 4. FIRST AID MEASURES**

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately. If unconscious, place in recovery position and seek medical advice.
- Inhalation : In case of accident by inhalation: remove casualty to fresh air and keep at rest. Consult a physician.
- Skin contact : After contact with skin, wash immediately with plenty of soap and water.
- Eye contact : Protect unharmed eye. Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.
- Ingestion : When swallowed, allow water to be drunk. Call a physician immediately.

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**Notes to physician**

Most important symptoms/effects, acute and delayed : No information available.

Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Foam  
Carbon dioxide (CO2)  
Dry powder

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting : Flammable.  
Vapours may form explosive mixtures with air.  
Vapours are heavier than air and may spread along floors.  
Vapors may travel to areas away from work site before igniting/flashback to vapor source.  
Fire may cause evolution of:  
Carbon oxides

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.  
No unprotected exposed skin areas.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Ensure adequate ventilation.

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Remove all sources of ignition.

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Ventilate the area.  
Do not use sparking tools.  
Use explosion-proof equipment.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**SECTION 7. HANDLING AND STORAGE****Handling**

Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
No smoking.  
Take precautionary measures against static discharges.  
Vapours may form explosive mixtures with air.

**Storage**

Conditions for safe storage, including any incompatibilities : Store in area designed for storage of flammable liquids. Protect from physical damage.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Store in original container.

Advice on common storage : Do not store together with oxidizing and self-igniting products.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

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Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Avoid inhalation of vapour or mist.

- Engineering measures : Use with local exhaust ventilation.  
Take measures to prevent the build up of electrostatic charge.  
Use explosion-proof equipment.
- Eye protection : Tightly fitting safety goggles
- Hand protection : Wear nitrile rubber gloves to avoid contact with the skin.  
Gloves must be inspected prior to use.  
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : Take off all contaminated clothing immediately.  
Recommended preventive skin protection  
Keep working clothes separately.  
When using, do not eat, drink or smoke.

## Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Heptane	142-82-5	STEL : Short term exposure limit	(500 ppm)	02 2012	ACGIH:US. ACGIH Threshold Limit Values, as amended
Heptane	142-82-5	TWA : Time weighted average	(400 ppm)	02 2012	ACGIH:US. ACGIH Threshold Limit Values, as amended

## SAFETY DATA SHEET

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Heptane	142-82-5	Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) :	1,800 mg/m3 (440 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Heptane	142-82-5	REL : Recomm ended exposure limit (REL):	350 mg/m3 (85 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Heptane	142-82-5	PEL : Permissi ble exposure limit	2,000 mg/m3 (500 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Heptane	142-82-5	TWA : Time weighted average	1,600 mg/m3 (400 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Heptane	142-82-5	STEL : Short term exposure limit	2,000 mg/m3 (500 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : liquid

Color : colourless

Odor : characteristic

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Odor threshold : Note: No data available

pH : Note: Not applicable

Melting point/range : -90.5 °C

Boiling point/boiling range : 98.2 - 98.4 °C at 1,000 hPa

Flash point : 25 °F (-4 °C)

Evaporation rate : Note: No data available

Flammability : Not applicable

Lower explosion limit : 1.1 %(V)

Upper explosion limit : 6.7 %(V)

Vapor pressure : 60.9 hPa  
at 25 °C(77 °F)

Vapor density : Note: No data available

Density : 0.69 g/cm<sup>3</sup> at 15 °C

Water solubility : 0.003 g/l at 0 °C

0.0024 g/l at 25 °C

0.0025 g/l at 40 °C



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Solubility in other solvents	: Note: soluble
Partition coefficient: n-octanol/water	: log Pow: 4.5
Ignition temperature	: 204 °C
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: Note: At normal pressure may be distilled without decomposition.
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 100.2 g/mol
	100.2 g/mol
Bulk density	: Note: Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. Hazardous polymerisation does not occur.
Conditions to avoid	: Keep product and empty container away from heat and sources of ignition. Keep away from direct sunlight.
Incompatible materials	: Strong oxidizing agents

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Hazardous decomposition products : Fire may cause evolution of:  
Carbon oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : Note: Not classified due to data which are conclusive although insufficient for classification.

Acute inhalation toxicity : LC50: > 29.29 mg/l  
Exposure time: 4 h  
Species: Rat  
Note: No deaths

Acute dermal toxicity : Note: Not classified due to data which are conclusive although insufficient for classification.

Skin irritation : Note: Classification based on Annex VI of regulation  
1272/2008/EC.

Eye irritation : Note: Not classified due to data which are conclusive although insufficient for classification.

Sensitisation : Maximisation Test  
Species: Guinea pig  
Result: Does not cause skin sensitisation.

Aspiration toxicity : May be fatal if swallowed and enters airways.

Further information : Note: Solvent vapours have a narcotic effect if inhaled in high concentrations.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish : Note: Classification based on Annex VI of regulation 1272/2008/EC.

Toxicity to daphnia and other aquatic invertebrates : Note: Classification based on Annex VI of regulation 1272/2008/EC.

Toxicity to algae : Note: Classification based on Annex VI of regulation 1272/2008/EC.

**Further information on ecology****SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** UN/ID No. : UN 1206  
Proper shipping name : HEPTANES  
Class : 3  
Packing group : II  
Hazard Labels : 3

**IATA** UN/ID No. : UN 1206  
Description of the goods : HEPTANES  
Class : 3  
Packaging group : II  
Hazard Labels : 3  
Packing instruction (cargo) : 364

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aircraft)  
Packing instruction : 353  
(passenger aircraft)  
Packing instruction : Y341  
(passenger aircraft)

**IMDG** UN/ID No. : UN 1206  
Description of the goods : HEPTANES  
Class : 3  
Packaging group : II  
Hazard Labels : 3  
EmS Number : F-E, S-D  
Marine pollutant : yes

**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances : On TSCA Inventory  
Control Act

Australia. Industrial : On the inventory, or in compliance with the inventory  
Chemical (Notification and  
Assessment) Act

Canada. Canadian : All components of this product are on the Canadian DSL  
Environmental Protection  
Act (CEPA). Domestic  
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory  
Inventory (KECI)

Philippines. Inventory of : On the inventory, or in compliance with the inventory  
Chemicals and Chemical  
Substances (PICCS)

China. Inventory of Existing : On the inventory, or in compliance with the inventory  
Chemical Substances  
(IECSC)

New Zealand. Inventory of : On the inventory, or in compliance with the inventory

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Chemicals (NZIoC), as  
published by ERMA New  
Zealand

## National regulatory information

- SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard
- CERCLA Reportable Quantity** : 100 lbs
- California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

- Massachusetts RTK** : Heptane 142-82-5
- New Jersey RTK** : Heptane 142-82-5
- Pennsylvania RTK** : Heptane 142-82-5

## SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 1*	1
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

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\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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