

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : Heptane
SDS-number : 000000020373
Type of product : Substance
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.
In accordance to the Article 14 (1) of the REACH Regulation
(EC) No 1907/2006, exposure estimation and risk
characterisation is not required.

Chemical name : Heptane
Index-No. : 601-008-00-2
REACH Registration Number : no data available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Laboratory chemicals
Uses advised against : none

1.3. Details of the supplier of the safety data sheet

| | | |
|---------|---|--|
| Company | : Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA | Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA |
|---------|---|--|

Telephone :
For further information, please contact: : SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

Emergency telephone : +1-703-527-3887 (ChemTrec-Transport)
number : +1-303-389-1414 (Medical)
Country based Poison : see chapter 15.1
Control Center

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 2
H225 Highly flammable liquid and vapour.
Aspiration hazard Category 1
H304 May be fatal if swallowed and enters airways.
Skin irritation Category 2
H315 Causes skin irritation.
Specific target organ toxicity - single exposure Category 3 - Central nervous system
H336 May cause drowsiness or dizziness.
Short-term (acute) aquatic hazard Category 1
H400 Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

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

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

| | |
|--------------------|---|
| P243 | sources. No smoking. Take precautionary measures against static discharge. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. |
| P280 | Wear protective gloves/ eye protection/ face protection. |
| P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |

2.3. Other hazards

Inhalation of high vapour concentrations can cause CNS-depression and narcosis. Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

| Chemical name | CAS-No. Index-No. REACH Registration Number EC-No. | Classification 1272/2008 | Concentration | Remarks |
|---------------|--|--|---------------|---------|
| Heptane | 142-82-5 601-008-00-2 205-563-8 | Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Corr. 2; H315 STOT SE 3; H336 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 | 100 % | |

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

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Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam
Carbon dioxide (CO₂)
Dry powder

Extinguishing media which shall not be used for safety reasons:

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

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/flashing back to vapor source.

Fire may cause evolution of:

Carbon oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

No unprotected exposed skin areas.

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

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Immediately contact emergency personnel.

6.2. Environmental precautions

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

6.3. Methods and materials for containment and cleaning up

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers
Use low-sparking handtools and explosion-proof electrical equipment
Eliminate all ignition sources if safe to do so.

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Wear personal protective equipment. Keep limited supplies at workplace. Keep container in liquid-impermeable tub. Never return unused material to storage receptacle.

Advice on protection against fire and explosion:

The heavy vapours can overcome a considerable distance up to the source of ignition. The product is easily combustible. Use only in explosion-proof areas. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Vapours may form explosive mixtures with air.

Hygiene measures:

Take off all contaminated clothing immediately. Recommended preventive skin protection Keep working clothes separately. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

Store in original container. Do not leave vessels/containers open Keep in a dry, cool and well-ventilated place.

Advice on common storage:

Do not store together with oxidizing and self-igniting products.

7.3. Specific end use(s)

no additional data available

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

| Components | Basis / Value type | Value / Form of exposure | Exceeding Factor | Remarks |
|------------|--------------------|------------------------------------|------------------|------------|
| Heptane | EH40 WEL | | | Listed |
| Heptane | EU ELV TWA | 2.085 mg/m ³ 500 ppm | | Indicative |
| Heptane | EH40 WEL TWA | 2.085 mg/m ³ 500 ppm | | |

TWA - Time weighted average

DNEL/ PNEC-Values

| Component | End-use/impact | Exposure duration | Value | Exposure routes | Remarks |
|-----------|--|-------------------|------------------------|-----------------|---------|
| Heptane | Workers / Long-term systemic effects | | 2085 mg/m ³ | Inhalation | |
| Heptane | Workers / Long-term systemic effects | | 300mg/kg bw/d | Skin contact | |
| Heptane | Consumers / Long-term systemic effects | | 447 mg/m ³ | Inhalation | |
| Heptane | Consumers / Long-term systemic effects | | 149mg/kg bw/d | Skin contact | |
| Heptane | Consumers / Long-term systemic effects | | 149mg/kg bw/d | Ingestion | |

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

No PNEC data available.

Heptane

:

No data available

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Engineering measures

Use with local exhaust ventilation.

Take measures to prevent the build up of electrostatic charge.

Use explosion-proof equipment.

Personal protective equipment

Respiratory protection:

Recommended Filter type:

Type A

In the case of vapour formation use a respirator with an approved filter.

Hand protection:

Glove material: Nitrile rubber

Break through time: > 480 min

Glove thickness: 0,4 mm

Camatril® 730

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Tightly fitting safety goggles

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

Skin and body protection:
Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------------------|--|
| Physical state | : liquid |
| Colour | : colourless |
| Odour | : characteristic |
| molecular weight | : 100,2 g/mol |
| Melting point/range | : -90,5 °C |
| Boiling point/boiling range | : 98,2 - 98,4 °C at 1.000 hPa |
| Flammability | : Not applicable |
| Upper explosion limit | : 6,7 %(V) |
| Lower explosion limit | : 1,1 %(V) |
| Flash point | : -4 °C |
| Auto-ignition temperature | : 204 °C |
| Decomposition temperature | : At normal pressure may be distilled without decomposition. |
| pH | : Not applicable |
| Auto-ignition temperature | : not auto-flammable |
| Viscosity, kinematic | : No data available |
| Water solubility | : 0,003 g/l |

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

| | | |
|--|---|------------------------------------|
| | | at 0 °C |
| Water solubility | : | 0,0024 g/l at 25 °C |
| Water solubility | : | 0,0025 g/l at 40 °C |
| Solubility in other solvents | : | soluble |
| Partition coefficient: n- octanol/water | : | log Pow 4,5 |
| Vapour pressure | : | 60,9 hPa at 25 °C |
| Density | : | 0,69 g/cm ³ at 15 °C |
| Bulk density | : | Not applicable |
| Relative vapour density | : | No data available |

9.2 Other Information

| | | |
|----------------------|---|--|
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Evaporation rate | : | No data available |
| Viscosity, dynamic | : | No data available |

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

At normal pressure may be distilled without decomposition.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Keep product and empty container away from heat and sources of ignition.
Keep away from direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute dermal toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute inhalation toxicity:

LC50

Species: Rat

Value: > 29,29 mg/l

Exposure time: 4 h

No deaths

Skin irritation:

Classification based on Annex VI of regulation 1272/2008/EC.

Eye irritation:

Not classified due to data which are conclusive although insufficient for classification.

Respiratory or skin sensitisation:

Maximisation Test

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

Species: Guinea pig
Result: Does not cause skin sensitisation.

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

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
Solvent removes skin oil from the skin.
Solvent vapours have a narcotic effect if inhaled in high concentrations.

SECTION 12: Ecological information

12.1. Toxicity

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

Toxicity to aquatic plants:
Classification based on Annex VI of regulation 1272/2008/EC.

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

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:1206

IMDG:1206

IATA:1206

14.2 UN proper shipping name

ADR/RID:HEPTANES

IMDG:HEPTANES

IATA:Heptanes

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: yes

Marine pollutant: yes

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| Basis | Value | Remarks |
|--|---|--|
| Directive 2012/18/EC Listed in Regulation : P5c: FLAMMABLE LIQUIDS Number in Regulation: 1.2.5.3 | Quantity: 5.000.000 kg Quantity: 50.000.000 kg | |
| Directive 2012/18/EC Listed in Regulation : E1: Hazardous to the aquatic environment Number in Regulation: 1.3.1 | Quantity: 100.000 kg Quantity: 200.000 kg | |
| Substances of very high concern (SVHC) | | This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w). |

Poison Control Center

| Country | Phone Number |
|----------------|------------------------------|
| Austria | +4314064343 |
| Belgium | 070 245245 |
| Bulgaria | (+)35929154233 |
| Croatia | (+3851)23-48-342 |
| Cyprus | +357 2240 5611 |
| Czech Republic | +420224919293; +420224915402 |
| Denmark | 82121212 |

| Country | Phone Number |
|---------------|-----------------------------|
| Liechtenstein | +41 442515151 |
| Lithuania | +370532362052 |
| Luxembourg | 070245245; (+352)80002-5500 |
| Malta | +356 2395 2000 |
| Netherlands | 030-2748888 |
| Norway | 22591300 |
| Poland | +48 42 25 38 400 |

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

| | |
|--------------------|------------------------|
| Estonia | 16662; (+372)6269390 |
| Finland | 9471977 |
| France | +33(0)145425959 |
| Greece | +30 210 779 3777 |
| Hungary | (+36-80)201-199 |
| Iceland | 5432222 |
| Ireland | +353(1)8092166 |
| Italy | 0382 24444 |
| Germany | Berlin : 030/19240 |
| | Bonn : 0228/19240 |
| | Erfurt : 0361/730730 |
| | Freiburg : 0761/19240 |
| | Göttingen : 0551/19240 |
| | Homburg : 06841/19240 |
| | Mainz : 06131/19240 |
| Munich : 089/19240 | |
| Latvia | +37167042473 |

| | |
|-----------------|--|
| Portugal | 800250250 |
| Romania | +40 21 318 3606 |
| Slovakia (NTIC) | +421 2 54 774 166 |
| Slovenia | +386 1 400 6051 |
| Spain | +34915620420 |
| Sweden | 112 (begär Giftinformation); +46104566786 |
| Switzerland | 145 |
| United Kingdom | (+44) 844 892 0111 |

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

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

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

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

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

On the inventory, or in compliance with the inventory

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

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Heptane : 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.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

Heptane

34495-1L

Version 1.6

Revision Date 17.12.2022

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.
