

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

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

- **1.1 Product identifier**
- **Trade name:** n-Heptane, 99%, reagent grade, Reag. Ph Eur
- **Article number:** HE0127
- **CAS Number:**
142-82-5
- **EC number:**
205-563-8
- **Index number:**
601-008-00-2
- **Registration number** 01-2119475515-33-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Process category**
PROC5 Mixing or blending in batch processes
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
- **Application of the substance / the preparation:** Laboratory reagent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com
- **Regional representation:**
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com
- **Further information obtainable from:** technical department
- **1.4 Emergency telephone number:**
Please contact the regional Scharlab distributor/dealer in your country
During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 1)



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02



GHS07



GHS08



GHS09

Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances

CAS No. Description

142-82-5 heptane

Identification number(s)

EC number: 205-563-8

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur· **Index number:** 601-008-00-2

(Contd. of page 2)

SECTION 4: First aid measures· **4.1 Description of first aid measures**· **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures· **5.1 Extinguishing media**· **Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.· **For safety reasons unsuitable extinguishing agents:** Water with full jet· **5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

· **5.3 Advice for firefighters**· **Protective equipment:** No special measures required.**SECTION 6: Accidental release measures**· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage· **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 3)

- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**

142-82-5 heptane

WEL Long-term value: 2085 mg/m³, 500 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Fluid

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 4)

<ul style="list-style-type: none"> Colour: · Odour: · Odour threshold: · pH-value: · Change in condition <li style="padding-left: 20px;">Melting point/freezing point: <li style="padding-left: 20px;">Initial boiling point and boiling range: · Flash point: · Flammability (solid, gas): · Ignition temperature: · Decomposition temperature: · Auto-ignition temperature: · Explosive properties: · Explosion limits: <li style="padding-left: 20px;">Lower: <li style="padding-left: 20px;">Upper: · Vapour pressure at 20 °C: · Density at 20 °C: · Relative density · Vapour density · Evaporation rate · Solubility in / Miscibility with water at 20 °C: · Partition coefficient: n-octanol/water: · Viscosity: <li style="padding-left: 20px;">Dynamic at 20 °C: <li style="padding-left: 20px;">Kinematic: · 9.2 Other information 	<ul style="list-style-type: none"> Colourless Nearly odourless Not determined. Not determined. -90.5 °C 98 °C -4 °C Not applicable. 215 °C Not determined. Not determined. Product is not explosive. However, formation of explosive air/vapour mixtures are possible. 1.1 Vol % 6.7 Vol % 48 hPa 0.68 g/cm³ Not determined. Not determined. Not determined. 0.05 g/l Not determined. 0.4 mPas Not determined. No further relevant information available.
---	--

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 5)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1206
- **14.2 UN proper shipping name**
- **ADR** 1206 HEPTANES, ENVIRONMENTALLY HAZARDOUS
- **IMDG, IATA** HEPTANES

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 6)

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 3 Flammable liquids.
 · **Label** 3

· **IMDG, IATA**



· **Class** 3 Flammable liquids.
 · **Label** 3
 · **14.4 Packing group**
 · **ADR, IMDG, IATA** II
 · **14.5 Environmental hazards:** Environmentally hazardous substance, liquid
 · **Marine pollutant:** No
 · **Special marking (ADR):** Symbol (fish and tree)
 · **14.6 Special precautions for user** Warning: Flammable liquids.
 · **Danger code (Kemler):** 33
 · **EMS Number:** F-E,S-D
 · **Stowage Category** B
 · **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Limited quantities (LQ)** 1L
 · **Transport category** 2
 · **Tunnel restriction code** D/E
 · **UN "Model Regulation":** UN 1206 HEPTANES, 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
E1 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 7)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

• Department issuing SDS: product safety department**• Contact:** msds@scharlab.com**• Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 8)

Annex: Exposure scenario 1

- **1 - Short title of the exposure scenario** Industrial use
- **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Process category** PROC15 Use as laboratory reagent
- **Environmental release category**
ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **2 - Conditions of use**
- **Duration and frequency**
5 workdays/week.
8hrs (full working shift).
Emission days (days/year): 20
- **Environment**
The product may not be released into the environment without control.
Wastewater is to be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.
Estimated substance removal from wastewater via domestic sewage treatment (%): 96.2
Maximum allowable site tonnage based on release following total wastewater treatment removal (kg/day): 990
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** Raw material.
- **Used amount per time or activity** 100 kg per day
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure**
Fraction released to air from process (initial release previous to MGR): 0.025
Fraction released to residual water from process (initial release previous to MGR): 0.02
Fraction released to ground from process (initial release previous to MGR): 0.0001
Use only on hard ground.
- **Other operational conditions affecting worker exposure**
Assumes use at not more than 20 °C above ambient temperature, unless stated differently.
Avoid contact with the skin.
Take precautionary measures against static discharge.
Keep away from sources of ignition - No smoking.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures**
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Keep good industrial hygiene.
- **Technical protective measures**
Provide explosion-proof electrical equipment.
Use product only in enclosed systems.
Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 9)

- **Measures for consumer protection** Ensure adequate labelling.
- **Environmental protection measures**
- **Water**
The product should not be released into water without pretreatment. An on-site wastewater treatment is recommended. The typical site treatment technology of wastewater achieves removal efficiency (%): (62.5)
Do not allow to reach sewage system.
- **Soil** Prevent contamination of soil.
- **Disposal measures**
Ensure that waste is collected and contained.
Disposal must be made according to official regulations.
- **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste type** Partially emptied and uncleaned packaging
- **3 - Exposure estimation**
To estimate exposures in the workplace has been used ECETOC TRA tool unless otherwise indicated.
- **Worker (oral)** No significant oral exposure
- **Worker (dermal)** No significant dermal exposure
- **Worker (inhalation)** No significant inhalative exposure
- **Environment**
The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.
- **4 - Guidance for downstream users**
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.
For the risk assessment, the tools recommended by ECHA can be used.

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 10)

Annex: Exposure scenario 2

- **1 - Short title of the exposure scenario** Laboratory use
- **Sector of Use**
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Process category** PROC15 Use as laboratory reagent
- **Environmental release category**
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **2 - Conditions of use**
- **Duration and frequency**
5 workdays/week.
8hrs (full working shift).
Emission days (days/year): 365
- **Environment**
The product may not be released into the environment without control.
Wastewater is to be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.
Estimated substance removal from wastewater via domestic sewage treatment (%): 96.2
Maximum allowable site tonnage based on release following total wastewater treatment removal (kg/day): 39
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** Raw material.
- **Used amount per time or activity** 0.0075 kg per day
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure**
Fraction released to air from process (initial release previous to MGR): 0.5
Fraction released to residual water from process (initial release previous to MGR): 0.5
Fraction released to ground from process (initial release previous to MGR): 0
Use only on hard ground.
- **Other operational conditions affecting worker exposure**
Assumes use at not more than 20 °C above ambient temperature, unless stated differently.
Avoid contact with the skin.
Take precautionary measures against static discharge.
Keep away from sources of ignition - No smoking.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures**
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Keep good industrial hygiene.
- **Technical protective measures**
Provide explosion-proof electrical equipment.
Use product only in enclosed systems.
Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 12)

Safety data sheet
according to 1907/2006/EC, Article 31 (REACH)

Printing date 30.07.2018

Revision: 03.07.2018

Trade name: n-Heptane, 99%, reagent grade, Reag. Ph Eur

(Contd. of page 11)

- **Measures for consumer protection** Ensure adequate labelling.
- **Environmental protection measures**
- **Water** Do not allow to reach sewage system.
- **Soil** Prevent contamination of soil.
- **Disposal measures**
Ensure that waste is collected and contained.
Disposal must be made according to official regulations.
- **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste type** Partially emptied and uncleaned packaging
- **3 - Exposure estimation**
To estimate exposures in the workplace has been used ECETOC TRA tool unless otherwise indicated.
- **Worker (oral)** No significant oral exposure
- **Worker (dermal)** No significant dermal exposure
- **Worker (inhalation)** No significant inhalative exposure
- **Environment**
The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.
- **4 - Guidance for downstream users**
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.
For the risk assessment, the tools recommended by ECHA can be used.