

SAFETY DATA SHEET

HEPTANE

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

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

Date issued	26.04.2019
Revision date	05.04.2019

1.1. Product identifier

Product name	HEPTANE
REACH Reg. No.	01-2119475515-33
EC No.	927-510-4
Index No.	601-008-00-2
Article no.	HEPTANE-DR
Extended SDS with ES incorporated	No

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

Use of the substance / preparation	Solvent.
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1.3. Details of the supplier of the safety data sheet**Foreign manufacturer**

Company name	Caldic Nederland B.V.
Office address	Westerlaan 1,
Postcode	3016
City	CK Rotterdam
Country	The Netherlands
Telephone number	+31 10 4136420

Distributor

Company name	Algol Chemicals Oy
Office address	Karapellontie 6
Postcode	02610
City	Espoo
Country	Finland

Telephone number	+358-9-50991
Email	msds@algol.com
Website	www.algolchemicals.fi
Enterprise No.	FI07774850

1.4. Emergency telephone number

Emergency telephone	Description: Poison Information Centre, Tukholmankatu 17, P.O.Box 790, FI-00029 HUS Helsinki, Finland tel. (24 h) / 09-4711 (exchange), 09-471977 (direct)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Flam. Liq. 2; H225
	Skin Irrit. 2; H315
	STOT SE 3; H336
	Asp. tox. 1; H304
	Aquatic Chronic 2; H411

2.2. Label elements

Hazard pictograms (CLP)



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. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat / sparks / open flames / hot surfaces. – No smoking. P243 Take action to prevent static discharge. P261 Avoid breathing dust / fume / gas / mist / vapours / spray. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER / doctor / . P331 Do NOT induce vomiting. P405 Store locked up.
Supplemental label information	P501 Dispose of contents / container according to national and local regulations.

2.3. Other hazards

PBT / vPvB	Not applicable.
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SECTION 3: Composition / information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EC No.: 927-510-4 REACH Reg. No.: 01-2119475515-33		~ 100 %

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Immediately remove contaminated clothing.
Inhalation	Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Consult a physician for specific advice.
Skin contact	Wash the skin immediately with soap and water.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician for specific advice.
Ingestion	DO NOT induce vomiting. Get medical attention immediately.

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

Acute symptoms and effects	Headache. Unconsciousness.
Delayed symptoms and effects	Pulmonary oedema, frothy sputum. Tachycardia, (excessively rapid heart beat, including rapid and weak pulse).

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

Medical treatment	No other information noted.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with dry sand. Foam. Water spray. Carbon dioxide or dry powder.
Improper extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Carbon monoxide (CO).
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5.3. Advice for firefighters

Personal protective equipment	Self contained breathing apparatus and full protective clothing must be worn in case of fire.
Other information	Cool containers exposed to heat with water spray and remove container, if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Provide adequate ventilation.
Protective equipment	Use personal protective equipment as required.
Emergency procedures	Keep public away from danger area.

6.2. Environmental precautions

Environmental precautionary measures	Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately.
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6.3. Methods and material for containment and cleaning up

Containment	Provide adequate ventilation.
Clean up	Dam and absorb spillage with sand, sawdust or other absorbent. Use mechanical handling equipment. Collect into suitable containers for recovery or disposal. For waste disposal, see section 13.

6.4. Reference to other sections

Other instructions	For personal protection, see section 8. For waste disposal, see section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Handle and open container with care. Provide adequate ventilation. Vapours are heavier than air and may spread near ground to sources of ignition. Static electricity and formation of sparks must be prevented.
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Protective safety measures

Safety measures to prevent fire	Keep away from sources of ignition - No smoking. Protect from heat and direct sunlight. Use spark-proof tools and explosion-proof equipment. Forms explosive mixtures with air.
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7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage

Requirements for storage rooms and vessels	Keep in an area equipped with solvent resistant flooring. Store in a cool place.
Additional information on storage conditions	Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from heat and direct sunlight.

7.3. Specific end use(s)

Specific use(s)	No specific recommendations.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

DNEL / PNEC

Substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
DNEL	<p>Group: Consumer Route of exposure: Long-term oral (systemic) Value: 149 mg/kg bw/day</p> <p>Group: Consumer Route of exposure: Long-term dermal (systemic) Value: 149 mg/kg bw/day</p> <p>Group: Professional Route of exposure: Long-term dermal (systemic) Value: 300 mg/kg bw/day</p> <p>Group: Consumer Route of exposure: Long-term inhalation (systemic) Value: 447 mg/m³</p> <p>Group: Professional Route of exposure: Long-term inhalation (systemic) Value: 2085 mg/m³</p>

8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls	Do not breathe gas/fumes/vapour/spray.
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Eye / face protection

Suitable eye protection	Wear tight-fitting goggles or face shield.
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Hand protection

Skin- / hand protection, short term contact	Use protective gloves, goggles and suitable protective clothing.
Suitable gloves type	Nitrile. Neoprene. PVC gloves are recommended.
Breakthrough time	Value: 480 minute(s)
Hand protection, comments	The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Skin protection

Suitable protective clothing	Wear full protective clothing.
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Respiratory protection

Respiratory protection necessary at	Respiratory protection may be required.
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Recommended type of equipment	This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
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Hygiene / environmental

Specific hygiene measures	<p>Keep separate from food, feedstuffs, fertilisers and other sensitive material. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.</p> <p>Wash hands before breaks and before smoking, eating or drinking.</p> <p>Avoid contact with skin and eyes.</p> <p>When using do not eat, drink or smoke.</p>
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Appropriate environmental exposure control

Environmental exposure controls	Not available.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Fluid.
Colour	Not determined.
Odour	Characteristic.
Melting point / melting range	Comments: Not determined.
Boiling point / boiling range	Value: 83 - 105 °C Method: (ASTM D1078)
Flash point	Value: < 0 °C Method: (ASTM D-56)
Evaporation rate	Value: 4,8 Comments: (n-butylacetate = 1)
Lower explosion limit with unit of measurement	Value: 0,6 %
Upper explosion limit with units of measurement	Value: 7 vol%
Vapour pressure	Value: 60 hPa Temperature: 20 °C
Density	Value: 0,681 - 0,781 g/cm ³ Temperature: 20 °C
Solubility	Medium: Water Comments: Insoluble in water.
Partition coefficient: n-octanol/ water	Comments: Not determined.
Viscosity	Value: 0,5 - 1,2 mm ² /s Method: (ASTM D702)
Oxidising properties	None.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties Molecular weight: 98 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not determined.

10.2. Chemical stability

Stability There are no anticipated hazardous decomposition products associated with this material.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Strong oxidising agents.

10.4. Conditions to avoid

Conditions to avoid No information available.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Effect tested: LD50
Route of exposure: Oral
Value: > 5840 mg/kg
Species: Rat
Comments: (OECD 401)

Effect tested: LD50
Route of exposure: Dermal
Value: > 2920 mg/kg
Species: Rabbit
Comments: (OECD 402)

Effect tested: LC50
Route of exposure: Inhalation.
Value: > 23,3 mg/l
Species: Rat
Comments: (OECD 403)

Other information regarding health hazards

Skin corrosion / irritation, other information	Irritating to skin.
General respiratory or skin sensitisation	Based on available data the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity, other information	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, test results	Comments: Vapours may cause drowsiness and dizziness.
Specific target organ toxicity - RE, test results	Comments: Based on available data the classification criteria are not met.
Assessment of aspiration hazard, classification	H304 May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: > 1 ≤ 10 mg/l Effect dose concentration : LC50 Value: > 1 ≤ 10 mg/l Effect dose concentration : EC50 Value: > 1 ≤ 10 mg/l Effect dose concentration : IC50 Value: 1 - 10 mg/l Effect dose concentration : NOEC
Substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Acute aquatic, fish	Value: 1 -10 mg/l Effect dose concentration : LC50 Value: 1 -10 mg/l Effect dose concentration : EC50 Value: 1 -10 mg/l Effect dose concentration : IC50 Value: 1 -10 mg/l Effect dose concentration : NOEC
Acute aquatic, algae	Value: > 1 ≤ 10 mg/l Effect dose concentration : LC50 Value: > 1 ≤ 10 mg/l Effect dose concentration : EC50 Value: > 1 ≤ 10 mg/l Effect dose concentration : IC50
Substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Acute aquatic, algae	Value: 10 -100 mg/l Effect dose concentration : LC50
Toxicity to bacteria	Value: 10 - 100 mg/l
Substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Toxicity to bacteria	Value: 10 -100 mg/l Effect dose concentration : LC50 Value: 10 -100 mg/l Effect dose concentration : EC50 Value: 10 -100 mg/l Effect dose concentration : IC50
Substance	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Impact on sewage treatment	Value: 1 -10 mg/l Effect dose concentration : EC50 Species: Activated sludge. Value: 1 -10 mg/l Effect dose concentration : LC50 Value: 1 -10 mg/l Effect dose concentration : IC50 Species: Activated sludge. Value: 0.1 -1 mg/l Effect dose concentration : NOEC Species: Activated sludge.
Other ecotoxicological information, crustaceans	TISBE Marine copepod - LC50 / IC50 / EC50 : 1 - 10 mg/l , NOEC : 0.1 - 1 mg/l

12.2. Persistence and degradability

Persistence and degradability description	The product is easily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	No information available.
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12.4. Mobility in soil

Mobility	No information available.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	Not applicable.
vPvB evaluation results	Not applicable.

12.6. Other adverse effects

Additional ecological information	Very toxic to aquatic organisms.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal

Do not dispose of together with household waste. No emission to sewage treatment plant. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: Transport information

Dangerous goods Yes

14.1. UN number

ADR / RID / ADN 1206

IMDG 1206

ICAO / IATA 1206

14.2. UN proper shipping name

Proper shipping name english ADR / RID / ADN HEPTANES

ADR / RID / ADN HEPTANES

IMDG HEPTANES

ICAO / IATA HEPTANES

14.3. Transport hazard class(es)

ADR / RID / ADN 3

Classification code ADR / RID / ADN F1

IMDG 3

ICAO / IATA 3

14.4. Packing group

ADR / RID / ADN II

IMDG II

ICAO / IATA II

14.5. Environmental hazards

IMDG Marine pollutant Yes

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Product name HEPTANES

Additional information

ADR / RID / ADN hazard label	3
IMDG Hazard label	3
ICAO / IATA Hazard label	3

ADR / RID - Other information

Tunnel restriction code	D/E
Transport category	2
Hazard No.	33
RID other applicable information	33

IMDG / ICAO / IATA Other information

EmS	F-E, S-D
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture**

Legislation and regulations	<p>Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.</p> <p>Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.</p>
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15.2. Chemical safety assessment

Chemical safety assessment performed	Yes
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SECTION 16: Other information

Supplier's notes	The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.
List of relevant H-phrases (Section 2 and 3)	<p>H225 Highly flammable liquid and vapour.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H315 Causes skin irritation.</p> <p>H336 May cause drowsiness or dizziness.</p>

	H411 Toxic to aquatic life with long lasting effects.
CLP classification, notes	Classification according to supplier. Harmonized classification.
Key literature references and sources for data	Material Safety Data Sheet 21.03.2018
Version	3