

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 31-Jul-2024

Revision Number 1

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

1.1. Product identifier

Product Name	EXXSOL HEPTANE
Substance Name	HYDROCARBONS, C7, N ALKANES, ISOALKANES, CYCLICS
Index No	649-328-00-1
EC Number	927-510-4
Pure substance/mixture	Substance
Molecular weight	99

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

Recommended use	Intermediate Coatings Cleaning agent Lubricant Metalworking fluid. Blowing agent Binder Functional fluids Laboratory chemicals Production of Rubber Polymers Mining chemicals Additive for Agrochemicals road and construction products. For further information, see attached Exposure Scenario
-----------------	--

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address	SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone

SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 2 - (H225)
Skin corrosion/irritation	Category 2 - (H315)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Aspiration hazard	Category 1 - (H304)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements



Signal word

Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H411 - Toxic to aquatic life with long lasting effects
H225 - Highly flammable liquid and vapour

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P273 - Avoid release to the environment
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting
P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

Additional information

This product requires child resistant fastenings if supplied to the general public.

2.3. Other hazards

Product is a static accumulator.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS 64742-49-0	100%	927-510-4	-	Aquatic Chronic 2 (H411) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Flam. Liq. 2 (H225)	-	-	-
HEPTANE 142-82-5	60 - 70%	205-563-8 (601-008-00-2)	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	1	1
METHYLCYCLOHEXANE 108-87-2	20 - 30%	203-624-3	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	-	-	-
3-METHYLHEXANE 589-34-4	10 - 20%	209-643-3 (601-008-00-2)	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
2-METHYLHEXANE 591-76-4	5 - 10%	209-730-6 (601-008-00-2)	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
CYCLOHEXANE 110-82-7	2%	203-806-2 (601-017-00-1)	-	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	1	1
3-ETHYLPENTANE 617-78-7	1 - 2.5%	210-529-0 (601-008-00-2)	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
2,3-DIMETHYLPENTANE 565-59-3	1 - 5%	209-280-0 (601-008-00-2)	-	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Place unconscious person on the side in the recovery position and ensure breathing can take place. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention immediately if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

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

Inhalation	May cause drowsiness or dizziness. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.
Eyes	May cause temporary eye irritation.
Dermal	Causes skin irritation.
Ingestion	May be fatal if swallowed and enters airways May result in aspiration into the lungs, causing chemical pneumonia. Risk of lung oedema. Irritating. May cause nausea, stomach pain and vomiting.

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

Note to doctors	Treat symptomatically. Symptoms may be delayed. Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.
------------------------	---

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Vapours may travel to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Closed containers can burst violently when heated, due to excess pressure build-up. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous combustion products Carbon oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Evacuate personnel to safe areas. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Do not allow runoff to sewer, waterway or ground.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow runoff to sewer, waterway or ground.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Remove all sources

of ignition. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Product is a static accumulator. Take precautionary measures against static discharges. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

General hygiene considerations Remove contaminated clothing and protective equipment before entering eating areas. Take off all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials. Keep away from food, drink and animal feedingstuffs. Protect from direct sunlight. Use appropriate containment to avoid environmental contamination. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Avoid contact with: Oxidising agent. Suitable container/equipment material: Carbon Steel. stainless steel. Polyethylene (PE). Polypropylene. Polyester. Unsuitable container/equipment material. Natural rubber. Butyl rubber.

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure LimitsTotal Hydrocarbons Vapour TWA: 395 ppm, 1600 mg/m³ (Manuf. Data).

Chemical name	United Kingdom
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³
METHYLCYCLOHEXANE 108-87-2	TWA: 800 mg/m ³ TWA: 196 ppm
CYCLOHEXANE 110-82-7	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 300 ppm STEL: 1050 mg/m ³

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS 64742-49-0		300 mg/kg bw/day [4] [6]	2085 mg/m ³ [4] [6]
HEPTANE 142-82-5		300 mg/kg bw/day [4] [6]	2085 mg/m ³ [4] [6]
CYCLOHEXANE 110-82-7		2016 mg/kg bw/day [4] [6]	700 mg/m ³ [4] [6] 700 mg/m ³ [5] [6] 700 mg/m ³ [4] [7] 700 mg/m ³ [5] [7]

- [4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS 64742-49-0	149 mg/kg bw/day [4] [6]	149 mg/kg bw/day [4] [6]	477 mg/m ³ [4] [6]
HEPTANE 142-82-5	149 mg/kg bw/day [4] [6]		447 mg/m ³ [4] [6]
CYCLOHEXANE 110-82-7	59.4 mg/kg bw/day [4] [6]	1186 mg/kg bw/day [4] [6]	206 mg/m ³ [4] [6] 206 mg/m ³ [5] [6] 412 mg/m ³ [4] [7] 412 mg/m ³ [5] [7]

- [4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
CYCLOHEXANE 110-82-7	0.0447 mg/L		0.00447 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
CYCLOHEXANE 110-82-7	3.6 mg/kg	0.36 mg/kg	3.24 mg/L	0.694 mg/kg	

8.2. Exposure controls**Engineering controls**

Ensure adequate ventilation. Local and General Ventilation. Use explosion-proof ventilating equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment**Eye/face protection**

Use eye protection according to EN 166. Tight sealing safety goggles.

Hand protection

Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Nitrile rubber	0.38 mm	8 hours

Skin and body protection

Clothing should include anti-static overalls, boots and gloves if there is a risk of ignition from static electricity.

Respiratory protection

In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2). EN 136/140/141/145/143/149.

General hygiene considerations

Remove contaminated clothing and protective equipment before entering eating areas. Take off all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	Clear liquid
Colour	Colourless
Odour	Petroleum.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available.
Initial boiling point and boiling range	94 - 99 °C	ASTM D1078.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits	7%	
Lower flammability or explosive limits	1%	
Flash point	-7 °C	ASTM D7094.
Autoignition temperature	258 °C	No information available.
Decomposition temperature		No information available.
pH		No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity	0.6 cSt	@ 20 °C.
Dynamic viscosity		No information available.
Water solubility	Immiscible with water	No information available.
Solubility(ies)		No information available.
Partition coefficient	> 4	No information available.
Vapour pressure	45 mm Hg	No information available.
Relative density	0.72	No information available.
Bulk density	0.72 g/cm ³	No information available.
Liquid Density	No information available	No information available.
Relative vapour density	>1	No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

Molecular weight 99 5 n-butyl acetate=1

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Product is a static accumulator.

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.

10.5. Incompatible materials

Incompatible materials Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	May cause temporary eye irritation.
Skin contact	Causes skin irritation.
Ingestion	Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Causes skin irritation.

Acute toxicity**Numerical measures of toxicity****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS	> 5840 mg/kg (Rat) >5000 mg/kg (Rat)	> 2920 mg/kg (Rat) >2000 mg/kg (Rat)	> 23.3 mg/l (Rat) 4 h >5.61 mg/l (Rat) 4h
HEPTANE	> 5000 mg/kg	> 2000 mg/kg (Rabbit)	> 29.3 mg/L (Rat) 4 h
CYCLOHEXANE	6240 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	32.88 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes skin irritation.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal			Irritant

HEPTANE (142-82-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin irritation May cause burning sensation May cause itching. Dryness and/or cracking May stain

					skin.
--	--	--	--	--	-------

CYCLOHEXANE (110-82-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal			Mild skin irritant

Serious eye damage/eye irritation May cause temporary eye irritation.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	eye			non-irritant
	Rabbit				Mild eye irritation

HEPTANE (142-82-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause temporary eye irritation

CYCLOHEXANE (110-82-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	eye			Mild eye irritation

Respiratory or skin sensitisation Based on available data the classification criteria are not met. This information is based on test data from similar products.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Negative

HEPTANE (142-82-5)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

CYCLOHEXANE (110-82-7)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

Germ cell mutagenicity Based on available data the classification criteria are not met. This information is based on test data from similar products.

Component Information

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Results
	in vitro	Not mutagenic

HEPTANE (142-82-5)

Method	Species	Results
	in vitro	Negative

CYCLOHEXANE (110-82-7)

Method	Species	Results
OECD 471	in vitro	Negative
OECD 476	in vitro	Negative
OECD 476	in vivo	Negative

Carcinogenicity No information available.

Component Information
CYCLOHEXANE (110-82-7)

Method	Species	Results
	Mouse	Negative

Reproductive toxicity Based on available data the classification criteria are not met. This information is based on test data from similar products.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Results
	Rat	Negative

HEPTANE (142-82-5)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

CYCLOHEXANE (110-82-7)

Method	Species	Results
	Rat	Negative

STOT - single exposure May cause drowsiness or dizziness.

HEPTANE (142-82-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause drowsiness or dizziness

CYCLOHEXANE (110-82-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	human data and animal	Inhalation			May cause drowsiness or dizziness
	human data and animal	Inhalation			Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.
	Professional Judgement	Oral			May cause drowsiness or dizziness

STOT - repeated exposure Based on available data the classification criteria are not met. This information is based on test data from similar products.

Component Information

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	human data and animal	Inhalation			May cause drowsiness or dizziness
	human data	Inhalation			May cause drowsiness or dizziness
		Inhalation			May cause drowsiness or dizziness

METHYLCYCLOHEXANE (108-87-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause drowsiness or dizziness

CYCLOHEXANE (110-82-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rat	Inhalation	NOAEL 24 mg/L	90 days	Not classified
	Rat	Inhalation	NOAEL 1.7 mg/L	90 days	Not classified
	Rabbit	Inhalation	NOAEL 2.7 mg/L	10 weeks	Not classified
	Mouse	Inhalation	NOAEL 24 mg/L	14 weeks	Not classified
	Rat	Inhalation	NOAEL 8.6 mg/L	30 weeks	Not classified

Aspiration hazard

May be fatal if swallowed and enters airways.

Other adverse effects

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity

Toxic to aquatic life with long lasting effects.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Green Algae	EL50	29 mg/L	72 hours	
	Fish	LC50	0.561 mg/L	96 hours	
	Water flea	EC50	0.4 mg/L	48 hours	
	Green Algae	EL50	29 mg/L	72 hours	
	Water flea	EL50	3 mg/L	48 hours	
	Oncorhynchus mykiss (rainbow trout)	LL50	>13.4 mg/L	96 hours	
	Green Algae	NOEL	6.3 mg/L	72 hours	
	Water flea	NOEC	0.17 mg/L	21 days	
	Green Algae	NOEL	6.3 mg/L	72 hours	
	Water flea	NOEL	1 mg/L	21 days	
	activated sludge	IC50	29 mg/L	15 hours	

HEPTANE (142-82-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus	LL50	5.738 mg/L	96 hours	

	mykiss (rainbow trout)				
	Daphnia magna	EC50	1.5 mg/L	48 hours	
	Chaetogammarus marinus	EC50	0.2 mg/L	48 hours	
	Pseudokirchneriella subcapitata	EL50	4.34 mg/L	72 hours	
	Pseudokirchneriella subcapitata	NOELR	0.97 mg/L	72 hours	

METHYLCYCLOHEXANE (108-87-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Fish	LC50	5 mg/L	48 hours	

CYCLOHEXANE (110-82-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Bacteria toxicity	IC50	97 mg/L	24 hours	
OECD Test No. 203: Fish, Acute Toxicity Test	Fish	LC50	4.53 mg/L	96 hours	Toxic to aquatic life
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.9 mg/L	48 hours	Very toxic to aquatic life
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Algae	EC50	3.4 mg/L	72 hours	Toxic to aquatic life

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS (64742-49-0)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	98% Biodegradation	Readily biodegradable

HEPTANE (142-82-5)

Method	Exposure time	Value	Results
			Expected to biodegrade very slowly

CYCLOHEXANE (110-82-7)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	77% Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS	4.66
HEPTANE	4.397
CYCLOHEXANE	3.44

12.4. Mobility in soil

Mobility in soil Not expected to adsorb on soil.

Mobility Insoluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
HYDROCARBONS C7, N-ALKANES, ISOALKANES, CYCLICS	The substance is not PBT / vPvB
HEPTANE	The substance is not PBT / vPvB
METHYLCYCLOHEXANE	No information available
CYCLOHEXANE	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Toxic to aquatic life with long lasting effects. Should not be released into the environment. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number UN1206
 14.2 UN proper shipping name HEPTANES
 14.3 Transport hazard class(es) 3
 14.4 Packing group II
 14.5 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions None
 ERG Code 3H

IMDG

14.1 UN number or ID number UN1206
 UN proper shipping name HEPTANES
 14.3 Transport hazard class(es) 3
 14.4 Packing group II
 14.5 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions None
 EmS-No F-E, S-D
 14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number	UN1206
14.2 UN proper shipping name	HEPTANES
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1

ADR

14.1 UN number or ID number	UN1206
14.2 UN proper shipping name	HEPTANES
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1
Tunnel restriction code	(D/E)

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Product restricted per REACH Annex XVII: 3

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
CYCLOHEXANE - 110-82-7	57. 75.	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

P5c - FLAMMABLE LIQUIDS

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

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
H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note **Not applicable**

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method

Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By J Spenceley

Revision date 31-Jul-2024

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

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.

End of Safety Data Sheet