

According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product code : GS1284
 Product name : n-Hexane 99%, GlenPure™, analytical grade
 CAS number : 110-54-3
 Physical form : liquid, substance
 REACH : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

PC21: Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

Company name	: Glentham Life Sciences Ltd	Telephone	: +44 (0) 1225 667 798
	Unit 5 Leafield Way	Fax	: +44 (0) 2033 978 909
	Corsham SN13 9SW	Email	: info@glentham.com
	United Kingdom	Web	: www.glentham.com

1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

2. Hazards identification

2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

H225	Flam. Liq. 2
H304	Asp. Tox. 1
H315	Skin Irr. 2
H335	STOT SE 3
H336	STOT SE 3
H361	Repr. 2
H373	STOT RE 2
H411	Aquatic Chronic 2

2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

Pictograms



GHS02 GHS07 GHS08 GHS09

Signal words

Danger

Hazard statements

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P273	Avoid release to the environment.
P281	Use personal protective equipment as required.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P302+P352 IF ON SKIN: wash with plenty of water.
P331 Do NOT induce vomiting.
P264 Do not breathe fume.
P241 Use explosion-proof electrical equipment.
P261 Avoid breathing vapors.

2.3 Other hazards

PBT

This substance is not identified as a PBT substance.

3.0 Composition/information on ingredients

3.1 Substances

Name	Identifier	%	Classification
n-Hexane 99%, GlenPure™, analytical grade	CAS: 110-54-3 EC: REACH: Not applicable	99.0%	H225, Flam. Liq. 2 H304, Asp. Tox. 1 H315, Skin Irr. 2 H335, STOT SE 3 H336, STOT SE 3 H361, Repr. 2 H373, STOT RE 2 H411, Aquatic Chronic 2

4. First aid measures

4.1 Description of first aid measures

Skin contact	Consult a doctor. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Remove all contaminated clothes and footwear immediately unless stuck to skin. Transfer to hospital if there are burns or symptoms of poisoning. Wash immediately with plenty of soap and water.
Eye contact	Consult a doctor. Transfer to hospital for specialist examination. Bathe the eye with running water for 15 minutes.
Ingestion	Consult a doctor. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Wash out mouth with water.
Inhalation	If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible. Consult a doctor. Remove casualty from exposure ensuring one's own safety whilst doing so.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact	Absorption through the skin may be fatal. Irritation or pain may occur at the site of contact. There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure.
Eye contact	The eyes may water profusely. There may be irritation and redness. There may be pain and redness. There may be severe pain.
Ingestion	Convulsions may occur. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur. Severe poisoning can cause shock, unconsciousness and convulsions. Severe poisoning can cause vision to be blurred or blindness, severe headache and rapid gasping breathing. There may be difficulty swallowing. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting. Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting.

Inhalation	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Drowsiness or mental confusion may occur. Exposure may cause coughing or wheezing. Nausea and stomach pain may occur. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.
Delayed / immediate effects	Convulsions may occur. Delayed effects can be expected after long-term exposure. Drowsiness or mental confusion may occur. Immediate effects can be expected after short-term exposure. Nausea and stomach pain may occur. There may be loss of consciousness.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate / special treatment

Do not induce vomiting. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

5.1 Extinguishing media

Alcohol resistant foam. Carbon dioxide. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers. Water spray.

5.2 Special hazards arising from the substance or mixture

Exposure hazards

Highly flammable. In combustion emits toxic fumes. May form flammable / explosive dust-air mixture. Toxic.

5.3 Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust. Eliminate all sources of ignition. Evacuate the area immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Notify the police and fire brigade immediately. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions

Alert the neighbourhood to the presence of fumes or gas. Do not discharge into drains or rivers.

6.3 Methods and material for containment and cleaning up

Clean-up procedures

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Absorb into dry earth or sand. Do not use equipment in clean-up procedure which may produce sparks.

6.4 Reference to other sections

Refer to section 8 of SDS.

7. Handling and storage

7.1 Precautions for safe handling

Handling requirements

Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Ensure there is exhaust ventilation of the area. Smoking is forbidden. Use non-sparking tools. Ensure there is sufficient ventilation of the area.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Avoid contact with water or humidity. Ensure lighting and electrical equipment are not a source of ignition. Keep away from sources of ignition. Keep container tightly closed. Prevent the build up of electrostatic charge in the immediate area. Store in cool, well ventilated area.

7.3 Specific end use(s)

No data available.

8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Substance (CAS)	Control Parameter	Value	Notes	Source
n-Hexane (110-54-3)	Long-term Exposure Limit (ppm)	72		2006/15/EC
	Long-term Exposure Limit (mg m ⁻³)	20		
	Long-term Exposure Limit (ppm)	20		UK HSE EH40/2005
	Long-term Exposure Limit (mg m ⁻³)	72		

8.2 Exposure controls

Engineering measures	Ensure lighting and electrical equipment are not a source of ignition. Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.
Respiratory protection	Particle filter class P1 (EN143). Respiratory protective device with particle filter. Self-contained breathing apparatus must be available in case of emergency. Self-contained breathing apparatus must be used in handling.
Hand protection	Impermeable gloves. Protective gloves.
Eye protection	Safety glasses with side-shields. Ensure eye bath is to hand. Safety glasses.
Skin protection	Protective clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Colourless
Odour	No data available.
Melting point/Freezing point	-94.3 °C
Boiling point/initial boiling point/boiling range	68.7 °C
Flammability	Highly flammable liquid and vapour
Lower/Upper explosion limit	No data available.
Flash Point	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water	No data available.
Vapour pressure	No data available.
Density/relative density	0.655
Relative vapour pressure	No data available.
Particle characteristics	No data available.

9.2 Other information

No data available.

10. Stability and reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable at room temperature. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid

Flames. Hot surfaces. Sources of ignition. Heat.

10.5 Incompatible materials

Materials to avoid

Carbon dioxide. Strong acids. Strong oxidising agents.

11. Toxicological information

11.1 Information on toxicological effects

a) Acute toxicity

n-Hexane

24 hr LC50 Goldfish (Carassius auratus) (Aquatic): 4 mg/L

1 hr LC50 Rat (Inhalation): 77000 ppm

4 hr LC50 Rat (Inhalation): 48000 ppm

LD50 Rat (Oral): 45 mL/kg

LD50 Mouse (Oral): 5000 mg/kg

b) Skin corrosion/irritation

Skin corrosion/irritation (Category 2)

c) Serious eye damage/irritation

No data available.

d) Respiratory or skin sensitisation

No data available.

e) Germ cell mutagenicity

No data available.

f) Carcinogenicity

No data available.

g) Reproductive toxicity

n-Hexane: Toxic to Reproduction (suspected) (ECHA Property of Concern)

Reproductive toxicity (Category 2)

h) STOT-single exposure

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)

i) STOT-repeated exposure

Specific target organ toxicity, repeated exposure (Category 2)

j) Aspiration hazard

Aspiration hazard (Category 1)

11.2 Symptoms / routes of exposure

Skin contact

Absorption through the skin may be fatal. Irritation or pain may occur at the site of contact. There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact. There may be redness or whiteness of the skin in the area of exposure.

Eye contact

The eyes may water profusely. There may be irritation and redness. There may be pain and redness. There may be severe pain.

Ingestion

Convulsions may occur. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur. Severe poisoning can cause shock, unconsciousness and convulsions. Severe poisoning can cause vision to be blurred or blindness, severe headache and rapid gasping breathing. There may be difficulty swallowing. There may be irritation of the throat. There may be loss of consciousness. There may be soreness and redness of the mouth and throat. There may be vomiting. Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting.

Inhalation Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. Drowsiness or mental confusion may occur. Exposure may cause coughing or wheezing. Nausea and stomach pain may occur. There may be irritation of the throat with a feeling of tightness in the chest. There may be loss of consciousness. There may be shortness of breath with a burning sensation in the throat. There may be vomiting.

Delayed / immediate effects Convulsions may occur. Delayed effects can be expected after long-term exposure. Drowsiness or mental confusion may occur. Immediate effects can be expected after short-term exposure. Nausea and stomach pain may occur. There may be loss of consciousness.

Other information No data available.

12. Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Not biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation potential.

12.4 Mobility in soil

Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

12.6 Endocrine disrupting properties

This substance is not identified as having endocrine disrupting properties

12.7 Other adverse effects

No data available.

13. Disposal considerations

13.1 Waste treatment methods

Disposal operations

Transfer to a suitable container and arrange for collection by specialised disposal company.

NB

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. Transport information

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN1208	UN1208	UN1208	UN1208	UN1208
14.2. UN proper shipping name				
HEXANES	HEXANES	Hexanes	HEXANES	HEXANES
Transport document description				
UN1208 HEXANES, 3, II	UN1208 HEXANES, 3, II	UN1208 Hexanes, 3, II	UN1208 HEXANES, 3, II	UN1208 HEXANES, 3, II

14.3. Transport hazard class(es)

3

3

3

3

3



14.4. Packing group

II

II

II

II

II

14.5. Environmental hazards

No

No

No

No

No

15. Regulatory information

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

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

Authorisations/Restrictions

Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation: No data available.

Regulation (EC) 1907/2006, REACH, Annex XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances: No data available.

Regulation (EC) 1005/2009 on substances that deplete the ozone layer: No data available.

Regulation (EC) 850/2004 on persistent organic pollutants, amended by (EU) No 2019/1021: No data available.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

16. Other information

H-Statement Full Texts

H225 Highly flammable liquid and vapour
H304 May be fatal if swallowed and enters airways
H315 Causes skin irritation
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H361 Suspected of damaging fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects

Abbreviations Full Texts

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ALARP As low as is reasonably practicable
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulations
COSHH Control of Substances Hazardous to Health
EC Number European Community Number
EC50 Effective Concentration 50%
EILINCS European List of Notified Chemical Substances
EINECS European Inventory of Existing Commercial Chemical Substances
GHS Globally Harmonised System
HSE Health & Safety Executive UK
IATA International Air Transport Association
IM Intramuscular
IMDG The International Maritime Dangerous Goods Code
IP Intraperitoneal
IV Intravascular

LD50	Lethal Dose 50%
LOEC	Lowest Observable Effective Concentration
LTEL	Long Term Exposure Limit
NOEC	No Observable Effective Concentration
OECD	Organisation for Economic Cooperations and Development
PBT	Persistent Bioaccumulative Toxic
PPE	Personal Protective Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC	Subcutaneous
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limits

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