

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 : GS2796  
Product name : n-Pentane 99%, GlenUltra™, analytical grade, for GC  
CAS number : 109-66-0  
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 : Glenthams Life Sciences Ltd Telephone : +44 (0) 1225 667 798  
Unit 5 Leafield Way Fax : +44 (0) 2033 978 909  
Corsham SN13 9SW Email : info@glenthams.com  
United Kingdom Web : www.glenthams.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  
H335 STOT SE 3  
H336 STOT SE 3  
H411 Aquatic Chronic 2

### 2.2 Label elements

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

#### Pictograms



#### Signal words

Danger

#### Hazard statements

H225 Highly flammable liquid and vapour  
H304 May be fatal if swallowed and enters airways  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H411 Toxic to aquatic life with long lasting effects  
EUH066 Repeated exposure may cause skin dryness or cracking.

#### Precautionary statements

P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.  
P233 Keep container tightly closed.  
P273 Avoid release to the environment.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...  
P331 Do NOT induce vomiting.  
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-Pentane 99%, GlenUltra™, analytical grade, for GC	CAS: 109-66-0 EC: REACH: Not applicable	99.0%	H225, Flam. Liq. 2 H304, Asp. Tox. 1 H335, STOT SE 3 H336, STOT SE 3 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.
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. Remove casualty from exposure ensuring one's own safety whilst doing so. Transfer to hospital as soon as possible. Consult a doctor.

#### 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 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 severe pain.
Ingestion	Convulsions may occur. 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.
Inhalation	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions 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. Immediate effects can be expected after short-term exposure. 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
Pentane (109-66-0)	Long-term Exposure Limit (ppm)	600		UK HSE EH40/2005
	Long-term Exposure Limit (mg m <sup>-3</sup> )	1800		
	Long-term Exposure Limit (ppm)	3000		2006/15/EC
	Long-term Exposure Limit (mg m <sup>-3</sup> )	1000		

### 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.
Hand protection	Impermeable gloves. Protective gloves.
Eye protection	Ensure eye bath is to hand. Safety glasses with side-shields. 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	-129.7 °C
Boiling point/initial boiling point/boiling range	36.1 °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	0.626
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

##### Pentane

4 hr LC50 Rat (Inhalation): 364000 mg/m3

4 hr LC50 Rat (Inhalation): 364 g/m3

LD50 Mouse (IV): 446 mg/kg

#### b) Skin corrosion/irritation

No data available.

- 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**  
No data available.
- h) **STOT-single exposure**  
Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)
- i) **STOT-repeated exposure**  
No data available.
- j) **Aspiration hazard**  
Aspiration hazard (Category 1)

#### 11.2 Symptoms / routes of exposure

<b>Skin contact</b>	Absorption through the skin may be fatal. Irritation or pain may occur 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.
<b>Eye contact</b>	The eyes may water profusely. There may be irritation and redness. There may be severe pain.
<b>Ingestion</b>	Convulsions may occur. 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.
<b>Inhalation</b>	Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions 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.
<b>Delayed / immediate effects</b>	Convulsions may occur. Delayed effects can be expected after long-term exposure. Immediate effects can be expected after short-term exposure. There may be loss of consciousness.
<b>Other information</b>	No data available.

#### 12. Ecological information

- 12.1 **Toxicity**  
No data available.
- 12.2 **Persistence and degradability**  
Biodegradable.
- 12.3 **Bioaccumulative potential**  
No 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
<b>14.1. UN number</b>				
UN1265	UN1265	UN1265	UN1265	UN1265
<b>14.2. UN proper shipping name</b>				
PENTANES	PENTANES	Pentanes	PENTANES	PENTANES
<b>Transport document description</b>				
UN1265 PENTANES, 3, II	UN1265 PENTANES, 3, II	UN1265 Pentanes, 3, II	UN1265 PENTANES, 3, II	UN1265 PENTANES, 3, II
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
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  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
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
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limits

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