

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

#### 1.1 Product identifier

Product name : Putrescine dihydrochloride  
Product code : GP9873  
CAS number : 333-93-7  
EINECS : 206-375-9

#### 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 Ingoldmells Court	Fax	: +44 (0) 2033 978 909
	Edinburgh Way	Email	: info@glentham.com
	Corsham	Web	: www.glentham.com
	Wiltshire, SN13 9XN		

#### 1.4 Emergency telephone number

Emergency telephone number: +44 (0) 1225 667 798 (09.00 - 17.00 GMT)

#### 1.5 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.

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### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification under CLP

Skin Irrit. 2, Eye Irrit. 2, STOT SE 3.

#### 2.2 Label elements

##### Label elements under CLP

##### Pictograms



##### Signal words

Warning

##### Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

##### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 2.3 Other hazards

##### PBT

This substance is not identified as a PBT substance.

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### 3.0 Composition/information on ingredients

#### 3.1 Substances

Product name	: Putrescine dihydrochloride	MW:	161.08
CAS number	: 333-93-7	MF :	C4H12N2 · 2HCl
EINECS	: 206-375-9		

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### 4.0 First aid measures

#### 4.1 Description of first aid measures

##### Skin contact

Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin.

##### Eye contact

Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion**

Wash out mouth with water. Consult a doctor.

**Inhalation**

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**

There may be irritation and redness at the site of contact.

**Eye contact**

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

**Ingestion**

There may be soreness and redness of the mouth and throat.

**Inhalation**

There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects**

Immediate effects can be expected after short-term exposure.

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

Eye bathing equipment should be available on the premises.

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**5.0 Fire-fighting measures****5.1 Extinguishing media**

Suitable extinguishing media for the surrounding fire should be used.

**5.2 Special hazards arising from the substance or mixture****Exposure hazards**

In combustion emits toxic fumes.

**5.3 Advice for fire-fighters**

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

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**6.0 Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****Personal precautions**

Refer to section 8 of SDS for personal protection details. 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. Do not create dust.

**6.2 Environmental precautions**

Do not discharge into drains or rivers.

**6.3 Methods and material for containment and cleaning up****Clean-up procedures**

Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**6.3 Reference to other sections**

Refer to section 8 of SDS.

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**7.0 Handling and storage****7.1 Precautions for safe handling****Handling requirements**

Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of dust in the air. Avoid direct contact with the substance.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Store in cool, well ventilated area. Keep container tightly closed. Avoid contact with water or humidity.

**7.3 Specific end use(s)**

No data available.

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**8.0 Exposure controls/personal protection**

### 8.1 Control parameters

#### Workplace exposure limits

Not applicable.

### 8.2 Exposure controls

#### Engineering measures

Ensure there is sufficient ventilation of the area.

#### Respiratory protection

Respiratory protective device with particle filter. Self-contained breathing apparatus must be available in case of emergency.

#### Hand protection

Protective gloves.

#### Eye protection

Safety glasses. Ensure eye bath is to hand.

#### Skin protection

Protective clothing.

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## 9.0 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical Form: Crystalline powder  
Colour: White  
Melting Point: 260 [°C]

### 9.2 Other information

Not applicable.

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## 10.0 Stability and reactivity

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

#### Hazardous reactions

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

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

#### Materials to avoid

Strong acids. Strong oxidising agents.

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## 11.0 Toxicological information

### 11.1 Information on toxicological effects

#### Toxicity values

Not applicable.

### 11.2 Information on toxicological effects

#### Skin contact

There may be irritation and redness at the site of contact.

#### Eye contact

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

#### Ingestion

There may be soreness and redness of the mouth and throat.

#### Inhalation

There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

#### Delayed / immediate effects

Immediate effects can be expected after short-term exposure.

**Other information**

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**12.0 Ecological information**

**12.1 Toxicity**

Not applicable.

**12.2 Persistence and degradability**

Biodegradable.

**12.3 Bioaccumulative potential**

No bioaccumulation potential.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

This substance is not identified as a PBT substance.

**12.6 Other adverse effects**

Negligible ecotoxicity.

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**13.0 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.

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**14.0 Transport information**

This product does not require a classification for transport.

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**15.0 Regulatory information**

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

Not applicable.

**Chemical Safety Assessment**

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

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**16.0 Other information**

**Other information**

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

**Legal disclaimer**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.