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

1.1 Product identifier

Product name: TCEP hydrochloride, 0.5M in water, pH 7
Product code: GE4909
CAS number: 51805-45-9

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 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 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.

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

![Warning]

Signal words
Warning

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

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P362 Take off contaminated clothing and wash before reuse.
P302 IF ON SKIN: Wash with plenty of soap and water.
P305 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

PBT
This substance is not identified as a PBT substance.

3.0 Composition/information on ingredients

3.1 Substances

Product name: TCEP hydrochloride, 0.5M in water, pH 7
CAS number: 51805-45-9
MW: 286.65
MF: C9H15O6P · HCl

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. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

Eye contact
Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination. Consult a doctor.
Ingestion
Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Consult a doctor. Transfer to hospital as soon as possible.

Inhalation
Consult a doctor. Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

4.2 Most important symptoms and effects, both acute and delayed

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

Eye contact
There may be irritation and redness. There may be pain and redness. There may be severe pain. The eyes may water profusely. The vision may become blurred. May cause permanent damage.

Ingestion
There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur.

Inhalation
There may be irritation of the throat with a feeling of tightness in the chest. There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. There may be loss of consciousness. Convulsions may occur.

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
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Eye bathing equipment should be available on the premises. Not applicable.

5.0 Fire-fighting measures

5.1 Extinguishing media
Use water spray to cool containers. Suitable extinguishing media for the surrounding fire should be used.

5.2 Special hazards arising from the substance or mixture
Exposure hazards
Toxic. 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.

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. Notify the police and fire brigade 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. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

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

6.3 Methods and material for containment and cleaning up
Clean-up procedures
Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean-up should be dealt with only by qualified personnel familiar with the specific substance.

6.3 Reference to other sections
Refer to section 8 of SDS.

7.0 Handling and storage

7.1 Precautions for safe handling
Handling requirements
Ensure there is sufficient ventilation of the area. Ensure there is exhaust 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.

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. Ensure there is exhaust ventilation of the area.

Respiratory protection
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
Protective gloves.

Eye protection
Safety glasses. Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection
Protective clothing.

9.0 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical Form: Liquid
Colour: Colourless

9.2 Other information
Not applicable.

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.

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

Eye contact
There may be irritation and redness. There may be pain and redness. There may be severe pain. The eyes may water profusely. The vision may become blurred. May cause permanent damage.

**Ingestion**
There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur.

**Inhalation**
There may be irritation of the throat with a feeling of tightness in the chest. There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. There may be loss of consciousness. Convulsions may occur.

**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**
Readily absorbed into 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.