

## 1: Identification of substance / mixture

### 1. Product Identifier

### Substance

Product Name **TCEP Hydrochloride**  
Product Code T26500  
CAS Number 51805-45-9  
Other Names [TRIS (2-Carboxyethyl)phosphine hydrochloride]  
T26500

IUPAC

MFCD Number

EC/EINECS

REACH Number

Index-No

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

Research and Development

### 3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd  
Bildeston Road, Chelsworth  
Ipswich  
Suffolk  
IP77LE  
UK

Telephone: 01449 741178  
Fax: 01449 741217  
Email: support@melford.co.uk



### 4. Emergency telephone number

+44(0)1449 741178 -

## 2. Hazards Identification

### 1. Classification of the substance or mixture

H314 Skin Corr. 1B

### 2. Label elements

Signal Word **Danger**



### Hazard Statements

H314 Causes severe skin burns and eye damage.

### Precautionary Phrases

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

Product Name	Hazards	Concentration
TCEP Hydrochloride		

CAS Number: 51805-45-9 H314 Skin Corr. 1B

<=100%

## 4. First Aid Measures

### 1. Description of first aid measures

<i>Skin Contact</i>	P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a doctor.
<i>Eye Contact</i>	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Bathe the eye with running water for 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Consult a doctor.
<i>Ingestion</i>	P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.
<i>Inhalation</i>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor.

### 2. Most important symptoms and effects

No data available

### 3. Indication of any immediate medical attention

No data available

## 5. Firefighting measures

### 1. Extinguishing Media

<i>Suitable</i>	Carbon dioxide. Alcohol or polymer foam. Dry chemical powder. Water spray.
<i>Unsuitable</i>	No information available

### 2. Special Hazards arising from the substance or mixture

Corrosive.  
In combustion emits toxic fumes:  
Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride gas.

### 3. Advice for Fire Fighters

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

## 6. Accidental Release Measures

### 1. Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.  
Evacuate personnel to safe areas. Avoid breathing dust

### 2. Environmental Precautions

Do not discharge into drains or rivers.

### 3. Methods & Materials

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.  
Ventilate area

### 4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

## 7. Handling and Storage

### 1. Personal Precautions

*Safe Handling* Avoid formation of dust and aerosols.  
Use in a chemical fume hood, with air supplied by an independent system.  
P264: Wash hands thoroughly after handling.

*Protection against explosions and fires* Normal measures for preventive fire protection.

### 2. Conditions for safe storage, including any incompatibilities

*Managing Storage Risks* Recommended storage temperature 2 -8 °C  
Keep container tightly closed.

*Storage Controls* No special requirements

*Maintaining Integrity* Store away from oxidising agents

*Other advice* no further information available

### 3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

## 8. Exposure Controls/Personal Protection

### 1. Control Parameters

No Data Available

### 2. Exposure Controls

*General protective and hygiene measures* P280: Wear protective gloves/protective clothing/eye protection/face protection.  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

*Engineering measures* Use in a chemical fume hood, with air supplied by an independent system.

*Eye / Face Protection* Safety Glasses with side-shields.  
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

*Hand protection* Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it

*Respiratory protection* Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

*Skin protection* Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

*Other personal protection advice* no data

## 9. Physical and Chemical Properties

### 1. Physical and Chemical Properties

Appearance

Solid

Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	No Data Available
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

## 2. Other Information

No additional information available

## 10. Stability and Reactivity

### 1. Reactivity

No data available

### 2. Stability

Stable under recommended storage conditions.

### 3. Possibility of Hazardous Reactions

No data available

### 4. Conditions to Avoid

No data available

### 5. Incompatible Materials

Strong oxidizing agents.

### 6. Hazardous Decomposition Products

In combustion emits toxic fumes:  
Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride gas.

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	LD50 Oral - rat - 3,500 mg/kg LD50 Dermal - rat - > 3,000 mg/kg
<i>Skin corrosion/irritation</i>	no data available
<i>Serious eye Damage/irritation</i>	no data available
<i>Respiratory or skin sensitisation</i>	no data available
<i>Germ Cell mutagenicity</i>	no data available
<i>Carcinogenicity</i>	no data available
<i>Reproductive toxicity</i>	no data available

*STOT-single exposure* no data available

*STOT-repeated exposure* no data available

*Aspiration hazard* no data available

## 2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

## 12. Ecological Information

### 1. Toxicity

No data available.

### 2. Persistence and degradability

No data available.

### 3. Bio-Accumulative Potential

No data available.

### 4. Mobility and Soil

No data available.

### 5. Results of PBT & vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 6. Other adverse effects

No data available.

## 13. Disposal Considerations

### 1. Waste Treatment Methods

*Disposal Operations* Hand over to authorised disposal company as hazardous waste.

*Disposal of Packaging* Disposal must be made according to official regulations.

## 14. Transport Information

### Air (ICAO)

1. **UN Number:** 3261
2. **Shipping Name:** Corrosive solid, acidic, organic, n.o.s.
3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

### Road (ADR)

1. **UN Number:** 3261
2. **Shipping Name:** CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S (TCEP Hydrochloride).
3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** II  
5. **Environmental hazards:**  
6. **Special Precautions for user:**  
7. **Transport in bulk:**

## Sea (IMDG)

1. **UN Number:** 3261  
2. **Shipping Name:** Corrosive solid, acidic, organic, n.o.s.  
3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** II  
5. **Environmental hazards:**  
6. **Special Precautions for user:**  
7. **Transport in bulk:** IBCINS: IBC08  
IBCPPROV: B4, B21  
TANKPROV: TP33

## 15. Safety, health, environmental and national regulations

### 1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

### 2. Safety Assessment

No Chemical Safety Assessment

## 16. Other Information

### 1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)  
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association  
ICAO:International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the ICAO  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CAS:Chemical Abstracts Service

### 3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.