

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2022  
Date Updated: December 31, 2022

## SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

<b>Product Name</b>	TCEP hydrochloride
<b>Product Code(s)</b>	TB0974
<b>Recommended Use</b>	For Laboratory Research Use Only Not for Human or Animal Drug Use
<b>Supplier</b>	Bio Basic Asia Pacific Pte Ltd.
<b>Address</b>	2 International Business Park Road Strategy #01-04, Singapore 609930
<b>Telephone</b>	(+65) 6954 2519 (+65) 6491 5938
<b>Email</b>	sg@biobasic-asia.com

## SECTION 2. ----- HAZARDS IDENTIFICATION -----

### Classification of the substance or mixture

#### GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Skin corrosion (Category 1B), H314  
Serious eye damage (Category 1), H318  
For the full text of the H-Statements mentioned in this Section, see Section 16.

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)  
H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P260	Do not breathe dust or mist.
P264	Wash skin 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): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS - none**

## SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Chemical Name	EC No.	CAS-No.	Weight %
Tris(2-carboxyethyl)phosphine hydrochloride	-	51805-45-9	<100

## SECTION 4. ----- FIRST-AID MEASURES-----

### Description of first-aid measures

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

#### Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5. ----- FIRE FIGHTING MEASURES-----

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

No data available

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

No data available

## SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### Reference to other sections

For disposal see section 13.

## SECTION 7. ----- HANDLING AND STORAGE-----

### Precautions for safe handling

Avoid formation of dust and aerosols. Protect from moisture. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

## **Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

Keep in a dry place.

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

## **Specific end use(s)**

Apart from the uses mentioned in section 1 no other specific uses are stipulated

## **SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -**

### **Control parameters**

### **Engineering controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **Personal protective equipment**

#### **Eye/face protection**

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin 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.

#### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

#### **Body 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.

#### **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).

#### **Control of environmental exposure**

Do not let product enter drains.

## **SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -**

### **Information on basic physical and chemical properties**

Appearance	Form: Powder Colour: White
Odour	No data available
Odour Threshold	No data available

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

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)	Flammable solid
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	soluble
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
Oxidizing properties	No data available

**Other information**

No data available

## SECTION 10. -----STABILITY AND REACTIVITY -----

**Reactivity**

No data available

**Chemical stability**

Stable under standard recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Oxides of phosphorus, Hydrogen chloride gas

Other decomposition products - No data available.

In the event of fire: see section 5

## SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

**Acute toxicity**

LD50 Oral - Rat - 3,500 mg/kg

Inhalation: No data available

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

LD50 Dermal - Rat - > 3,000 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12. ----- ECOLOGICAL INFORMATION -----

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

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

**Other adverse effects**

No data available

## SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**Additional information**

No data available

# **SAFETY DATA SHEET**

[Required under safety and health regulations for shipping and handling]

## **SECTION 14. ----- TRANSPORT INFORMATION -----**

### **TDG (Canada)**

UN number: 3261

Class: 8

Packing group: II

Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

### **IATA**

UN number: 3261

Class: 8

Packing group: II

Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (Tris(2-carboxyethyl)phosphine hydrochloride)

## **SECTION 15. ----- REGULATORY INFORMATION -----**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

## **SECTION 16. ----- OTHER INFORMATION -----**

### **Full text of H-Statements referred to under sections 2 and 3.**

Eye Dam.        Serious eye damage

H314            Causes severe skin burns and eye damage.

H318            Causes serious eye damage.

Skin Corr.      Skin corrosion

Further information: no limited for paper copy, just for internal uses.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

### **Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**Issuing Date:** 31-Dec-2022

**End of SDS**