

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Purified Bordetella pertussis toxin (PT)  
IUPAC name: Pertussis toxin from Bordetella pertussis  
Product number : PT-TNF  
CAS number: 70323-44-3

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### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Acute toxicity, Oral (Category 3)  
Toxic by inhalation, in contact with skin and if swallowed.

#### Label elements

Pictogram



Signal word: Danger

Hazard statement(s)  
H301 Toxic if swallowed.  
H311 Toxic in contact with skin.  
H331 Toxic if inhaled.

Precautionary statement(s)  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing.  
P284 Wear respiratory protection when dealing with powder

Hazard symbol(s) Toxic

R-phrases) R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

S-phrases) S45 In case of accident or if you feel unwell, seek medical advice immediately

(show the label where possible).  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pertussis toxin from *Bordetella pertussis*. Sample is of biological origin and is presented as a liquid in a plastic vial.

Additional components present: 0.05M sodium phosphate buffer at pH7.2 and 0.5M sodium chloride.

### 4. 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:** Wash off with soap and plenty of water. Consult a physician.
- In case of eye contact:** Rinse thoroughly at eyewash station for at least 15 minutes and consult a physician.
- If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

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

#### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Wear gloves and eye protection.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so.

#### Methods and materials for containment and cleaning up

Pick up using absorbent tissue and arrange for safe disposal. Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Avoid contact with skin and eyes..

#### Conditions for safe storage

Recommended storage temperature: -20 to -80 °C for long term.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

#### Personal protective equipment



#### **Respiratory protection**

None necessary.

#### **Hand protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

#### **Eye protection**

Safety glasses

#### **Skin and body protection**

Laboratory coat

#### **Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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

#### **Appearance**

Colourless liquid

#### **Safety data**

pH: pH 7.2  
Melting point: no data available  
Boiling point: no data available  
Flash point: no data available  
Ignition temperature: no data available  
Lower explosion limit: no data available  
Upper explosion limit: no data available  
Water solubility: soluble

### **10. STABILITY AND REACTIVITY**

#### **Chemical stability**

Stable under recommended storage conditions.

#### **Conditions to avoid**

Avoid multiple freeze thaw cycles

#### **Materials to avoid**

Strong oxidizing agents

#### **Hazardous decomposition products**

None known

### **11. TOXICOLOGICAL INFORMATION**

#### **Acute toxicity**

no data available

#### **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

**Aspiration hazard**  
no data available

**Potential health effects**  
Toxic if inhaled. May cause respiratory tract irritation.  
Harmful if swallowed, although low pH in gut can degrade the toxin, reducing its effects.  
Toxic if absorbed through skin. May cause skin irritation.  
May cause eye irritation.

**Signs and Symptoms of Exposure**  
Potentially neurotoxic.

**Additional Information**  
RTECS: XW5883750 for pure toxin

## 12. ECOLOGICAL INFORMATION

**Toxicity**  
no data available

**Persistence and degradability**  
Toxin degrades easily

**Bioaccumulative potential**  
Low

**Mobility in soil**  
no data available

**PBT and vPvB assessment**  
no data available

**Other adverse effects**  
no data available

## 13. DISPOSAL CONSIDERATIONS

**Product**  
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste

disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION**

UN Number: 3462

Class: 6.1

Packing group: I

Proper shipping name: TOXINS EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. (Pertussis toxin from Bordetella pertussis)

Shipped as Excepted Quantity transport class 6.1

**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**16. OTHER INFORMATION**

If inactivated, this product is not considered hazardous by ingestion; pertussis toxin is degraded by the low pH in the gut and is not absorbed. Take special care when working in conjunction with hypodermic needles. If i.v. or i.m. injection should occur, consult a physician.

**Last update:** 25-JAN-2021

**Prepared by:** The Native Antigen Company

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