

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-TNG
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. Each vial contains no more than 1000µg.

Additional components present: 50mM Tris pH 7.5, 10mM glycine, 0.5M sodium chloride, 50% (v/v) glycerol.

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

Although the information, opinions and recommendations contained in this Safety Data Sheet are compiled from sources believed to be reliable, we accept no responsibility for the accuracy, sufficiency, or reliability or for any loss or injury resulting from the use of the information.