

SAFETY DATA SHEET

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

Product Name: Bordetella Pertussis Adenylate Cyclase, Active
IUPAC name: -
Product Number: REC31956-50
CAS number:

Company: The Native Antigen Company Ltd.
Building B
Langford Locks
Kidlington
Oxfordshire
OX5 1LH
[Tel+44](tel:+441865595230) (0)1865 595230

E-mail address: contact@thenativeantigencompany.com

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a recombinant Bordetella pertussis toxin expressed in E. coli from the structural gene cyaA and its activator gene cyaC and purified by the method of Friedman. 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: 50 mM Tris-HCl (pH8.0), 6M urea, 150 mM NaCl..

4. FIRST AID MEASURES

If inhaled: Remove person to fresh air, seek medical advice if breathing becomes difficult.
In case of skin contact: Wash off with soap and water.
In case of eye contact: Rinse at eyewash station.



If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Special protective equipment for fire-fighters

None required.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear suitable PPE including gloves and eye protection. Respiratory protection is not required.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up

Sweep up and shovel. 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:

Short term: -20°C.

Long-term: -80°C.

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

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

Skin and body protection



Laboratory coat

Hygiene measures

Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Colourless liquid

Safety data

pH: 8.0
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

No overt mouse toxicity was observed by intravenous injection of 50µg of adenylate cyclase toxin¹. No toxicity for human is known.

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

¹ Friedman RL (1987) Bordetella pertussis adenylate cyclase: isolation and purification by calmodulin sepharose 4B chromatography. Infect Immun 55: 129-134.

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

Inhalation	no data available
Ingestion	no data available
Skin	no data available
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information**12. ECOLOGICAL INFORMATION****Toxicity**

No data available

Persistence and degradability

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. Can be disposed of down sink.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

Not dangerous goods, no transport limitations.

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

None

Last updated: 09/04/2021

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.