

## Safety data sheet

Page: 1/10

BASF Safety data sheet

Date / Revised: 25.07.2015

Product: **Trilon® BX Powder**

Version: 3.0

(30043448/SDS\_GEN\_VN/EN)

Date of print 26.07.2015

### 1. Substance/preparation and manufacturer/supplier identification

#### Trilon® BX Powder

Use: complexing agents for the chemical industry

Manufacturer/supplier:

BASF Vietnam Co. Ltd.

12 Tu do Boulevard, Vietnam-Singapore IP

Thuan An, Binh Duong, VIETNAM

Telephone: +84 6503 743-100

Telefax number: +84 6503 743-200

E-mail address: thixuanthuy.nguyen@basf.com

Emergency information:

International emergency number:

Telephone: +49 180 2273-112

### 2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (Inhalation - dust)

Acute toxicity: Cat. 4 (oral)

Serious eye damage/eye irritation: Cat. 1

| Specific target organ toxicity — repeated exposure (Respiratory system): Cat. 2 (by inhalation)

Label elements and precautionary statement:

Pictogram:



Signal Word:  
Danger

Hazard Statement:

Causes serious eye damage. Harmful if inhaled. Harmful if swallowed. May cause damage to organs (Respiratory system) through prolonged or repeated exposure (inhalation).

Precautionary Statements (Prevention):

Use only outdoors or in a well-ventilated area. Wear eye/face protection. Avoid breathing dust. Do not breathe dust/gas/mist/vapours. Do not eat, drink or smoke when using this product. Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Rinse mouth.

Precautionary Statements (Disposal):

Dispose of contents/container to hazardous or special waste collection point.

Other hazards which do not result in classification:

No specific dangers known, if the regulations/notes for storage and handling are considered.

---

### 3. Composition/information on ingredients

#### Chemical nature

tetrasodium ethylenediaminetetraacetate  
CAS Number: 64-02-8

---

### 4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:

Symptoms: difficulty breathing, corneal injury, gastrointestinal complaints, irritation of the mucous membranes

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

---

## 5. Fire-Fighting Measures

Suitable extinguishing media:  
dry powder, foam

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

Specific hazards:  
harmful vapours, nitrogen oxides, carbon oxides  
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:  
Wear a self-contained breathing apparatus.

Further information:  
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

---

## 6. Accidental Release Measures

Personal precautions:  
Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions:  
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:  
For small amounts: Pick up with suitable appliance and dispose of.  
For large amounts: Contain with dust binding material and dispose of.  
Dispose of absorbed material in accordance with regulations.

---

## 7. Handling and Storage

### Handling

Provide exhaust ventilation. Avoid inhalation of dusts.

Protection against fire and explosion:  
Avoid dust formation. Take precautionary measures against static discharges.

### Storage

(30043448/SDS\_GEN\_VN/EN)

Date of print 26.07.2015

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE)

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

## 8. Exposure controls and personal protection

### Components with occupational exposure limits

| No occupational exposure limits known.

### Personal protective equipment

#### Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

#### Hand protection:

Chemical resistant protective gloves

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

#### Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

#### Body protection:

Body protection must be chosen based on level of activity and exposure.

#### General safety and hygiene measures:

Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

Form: powder  
Colour: white  
Odour: product specific  
Odour threshold: No data available.

pH value: approx. 10.7 - 11.7 (DIN 19268)  
(10 g/l, 23 °C)

Melting point:	The substance / product decomposes therefore not determined.	
decomposition point:	> 150 °C Literature data. The substance / product decomposes.	
:	not applicable	(other)
Flash point:	Study scientifically not justified.	
Evaporation rate:	The product is a non-volatile solid.	
Flammability (solid/gas):	not highly flammable	
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Ignition temperature:	> 200 °C	(DIN 51794)
Thermal decomposition:	not determined	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.	
Vapour pressure:	6 hPa (approx. 25 °C) contains water, Literature data.	(measured)
Density:	1.67 g/cm <sup>3</sup> (20 °C) Literature data.	
Bulk density:	approx. 760 - 930 kg/m <sup>3</sup>	(DIN ISO 697)
Relative vapour density (air):	not determined	
Solubility in water:	approx. 700 g/l	
Solubility (qualitative) solvent(s):	polar solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	-13 (20 °C)	
Viscosity, dynamic:	Study scientifically not justified.	

---

## 10. Stability and Reactivity

Conditions to avoid:  
Avoid dust formation. Avoid humidity.

Thermal decomposition: not determined

Substances to avoid:  
amphoteric metals, light metals

Corrosion to metals: Corrodes metals in the presence of water or moisture.

Hazardous reactions:

The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

---

## 11. Toxicological Information

### Acute toxicity

Assessment of acute toxicity:  
Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:  
LD50 rat (oral): 1,000 - 2,000 mg/kg (BASF-Test)

LC50 rat (by inhalation): 1000 - 5000 mg/m<sup>3</sup> 6 h (OECD Guideline 403)  
Analogous: Assessment derived from products with similar chemical character.

LD50 (dermal):  
Study scientifically not justified.

### Irritation

Assessment of irritating effects:  
Not irritating to the skin. May cause severe damage to the eyes.

Experimental/calculated data:  
Skin corrosion/irritation rabbit: non-irritant (BASF-Test)

Serious eye damage/irritation rabbit: irreversible damage (BASF-Test)

### Respiratory/Skin sensitization

Experimental/calculated data:  
Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

(30043448/SDS\_GEN\_VN/EN)

Date of print 26.07.2015

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### **Germ cell mutagenicity**

Assessment of mutagenicity:

In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.

### **Carcinogenicity**

Assessment of carcinogenicity:

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### **Reproductive toxicity**

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### **Developmental toxicity**

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

### **Specific target organ toxicity (single exposure):**

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

### **Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**

Assessment of repeated dose toxicity:

Repeated inhalation exposure may affect certain organs. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### **Aspiration hazard**

Not relevant.

---

## **12. Ecological Information**

### **Ecotoxicity**

Assessment of aquatic toxicity:

(30043448/SDS\_GEN\_VN/EN)

Date of print 26.07.2015

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

**Toxicity to fish:**

LC50 (96 h) > 100 mg/l, *Lepomis macrochirus* (OPP 72-1 (EPA-Guideline), static)  
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Aquatic invertebrates:**

EC50 (48 h) > 100 mg/l, *Daphnia magna* (DIN 38412 Part 11, static)  
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Aquatic plants:**

EC50 (72 h) > 100 mg/l (growth rate), *Scenedesmus subspicatus* (Directive 88/302/EEC, part C, p. 89, static)  
Nominal concentration.

**Microorganisms/Effect on activated sludge:**

EC20 (30 min) > 500 mg/l, activated sludge, domestic (OECD Guideline 209, aquatic)  
Nominal concentration. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Chronic toxicity to fish:**

No observed effect concentration (35 d)  $\geq$  36.9 mg/l, *Brachydanio rerio* (OECD Guideline 210, Flow through.)  
The statement of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Chronic toxicity to aquatic invertebrates:**

No observed effect concentration (21 d), 25 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)  
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Soil living organisms:**

LC50 (14 d) 156 mg/kg, *Eisenia foetida* (OECD Guideline 207, artificial soil)  
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Terrestrial plants:**

No observed effect concentration, terrestrial plants (other)  
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Other terrestrial non-mammals:**

Study scientifically not justified.

**Mobility**

Assessment transport between environmental compartments:



The substance will not evaporate into the atmosphere from the water surface.  
Adsorption to solid soil phase is not expected.

### **Persistence and degradability**

Assessment of stability in water:  
According to structural properties, hydrolysis is not expected/probable.

### **Sum parameter**

Theoretical Oxygen Demand (ThOD): 602 mg/g

### **Bioaccumulation potential**

Bioaccumulation potential:  
Bioconcentration factor: approx. 1.8 (28 d), *Lepomis macrochirus*  
Does not significantly accumulate in organisms.

### **Additional information**

Other ecotoxicological advice:  
Do not release untreated into natural waters.

---

## **13. Disposal Considerations**

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:  
Untaminated packaging can be re-used.  
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

---

## **14. Transport Information**

### **Domestic transport:**

Not classified as a dangerous good under transport regulations

### **Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

### **Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations

---

## **15. Regulatory Information**

---

(30043448/SDS\_GEN\_VN/EN)

Date of print 26.07.2015

Hazard determining component(s) for labelling: ETHYLENEDIAMINETETRAACETIC ACID NA4-SALT

### **Other regulations**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

---

## **16. Other Information**

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

---

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.