1. Product and Company Identification

Company: BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

24 Hour Emergency Response Information
CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Synonyms: Tetrasodium ethylenediaminetetraacetate

2. Hazards Identification

Emergency overview

Causes serious eye damage.
HARMFUL IF SWALLOWED.
HARMFUL IF INHALED.
Contains a carcinogen.
Avoid inhalation of dusts.
Avoid contact with the skin, eyes and clothing.

State of matter: solid
Colour: white
Odour: product specific

Potential health effects

Acute toxicity:
Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation.

Irritation / corrosion:
Not irritating to the skin. May cause severe damage to the eyes.

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

Chronic toxicity:

Carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

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.
Safety Data Sheet
Trilon® B Powder

Reproductive toxicity: The results of animal studies gave no indication of a fertility impairing effect.

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

Genotoxicity: 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.

Signs and symptoms of overexposure: difficulty breathing, corneal injury, gastrointestinal complaints, irritation of the mucous membranes

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Content (W/W)</th>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>19019-43-3</td>
<td>7.0 - 13.0 %</td>
<td>Glycine, N-(carboxymethyl)-N-[2-[(carboxymethyl)amino]ethyl]-, trisodium salt</td>
</tr>
<tr>
<td>2836-32-0</td>
<td>1.0 - 5.0 %</td>
<td>Acetic acid, hydroxy-, monosodium salt</td>
</tr>
<tr>
<td>64-02-8</td>
<td>60.0 - 100.0 %</td>
<td>Tetraboron ethylenediaminetetraacetate</td>
</tr>
<tr>
<td>5064-31-3</td>
<td>3.0 - 7.0 %</td>
<td>Trisodium nitrilotriacetate</td>
</tr>
</tbody>
</table>

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.

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

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

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

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

5. Fire-Fighting Measures

Flash point: Study scientifically not justified.
Autoignition: > 200 °C (DIN 51794)

Suitable extinguishing media: dry powder, foam

Unsuitable extinguishing media for safety reasons: carbon dioxide

Additional information: Avoid whirling up the material/product because of the danger of dust explosion.
6. Accidental release measures

**Personal precautions:**
Avoid dust formation. 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.

**Cleanup:**
Avoid raising dust. Dispose of absorbed material in accordance with regulations.
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Contain with dust binding material and dispose of.

Nonsparking tools should be used.

**Further information:**
Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

7. Handling and Storage

**Handling**

**General advice:**
Provide exhaust ventilation. Avoid inhalation of dusts.

**Protection against fire and explosion:**
Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

**Storage**

**General advice:**
Keep container tightly closed and dry; store in a cool place.
Avoid all sources of ignition: heat, sparks, open flame.
8. Exposure Controls and Personal Protection

**Personal protective equipment**

**Respiratory protection:**
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

**Hand protection:**
Chemical resistant protective gloves

**Eye protection:**
Tightly fitting safety goggles (chemical goggles).

**Body protection:**
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

**General safety and hygiene measures:**
Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>product specific</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>pH value</td>
<td>approx. 10.5 - 12.5</td>
<td>(10 g/l, 23 °C) (DIN 19268)</td>
</tr>
<tr>
<td>Melting point</td>
<td></td>
<td>The substance / product decomposes</td>
</tr>
<tr>
<td>decomposition point</td>
<td>&gt; 150 °C</td>
<td>therefore not determined.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>6 hPa</td>
<td>Literature data.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.67</td>
<td>Literature data.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>620 - 760 kg/m³</td>
<td>(20 °C) Literature data.</td>
</tr>
<tr>
<td>Partitioning coefficient</td>
<td>-13</td>
<td>Study scientifically not justified.</td>
</tr>
<tr>
<td>n-octanol/water (log Pow)</td>
<td></td>
<td>(measured)</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particle size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>approx. 750 g/l</td>
<td></td>
</tr>
<tr>
<td>Solubility (qualitative)</td>
<td>soluble</td>
<td>solvent(s): polar solvents,</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

**Minimum ignition energy:**
> 4 J (VDI 2263, sheet 1, 2.1.1)
The product is capable of dust explosion.

**Conditions to avoid:**
Avoid humidity. Avoid dust formation.

**Substances to avoid:**
amphoteric metals, light metals

**Hazardous reactions:**
Dust explosion hazard.
Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
> 300 °C

11. Toxicological information

Acute toxicity

Oral:
Type of value: LD50
Species: rat
Value: 1,780 - 2,000 mg/kg (BASF-Test)

Information on: tetrasodium ethylenediaminetetraacetate
Type of value: LD50
Species: rat
Value: > 1,780 - < 2,000 mg/kg (BASF-Test)

Information on: tetrasodium ethylenediaminetetraacetate
Type of value: LC50
Species: rat
Value: > 1 mg/l (other)
An aerosol was tested.
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Inhalation:
Type of value: LC50
Species: rat
Value: (OECD Guideline 403)
Exposure time: 6 h
Analogous: Assessment derived from products with similar chemical character.

Information on: tetrasodium ethylenediaminetetraacetate
Type of value: LC50
Species: rat
Value: > 1 mg/l (other)
An aerosol was tested.
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Dermal:
Type of value: LD50
Study scientifically not justified.

Irritation / corrosion

Information on: tetrasodium ethylenediaminetetraacetate
Assessment of irritating effects:
Not irritating to the skin. May cause severe damage to the eyes.

Information on: Glycine, N-(carboxymethyl)-N-[2-[(carboxymethyl)amino]ethyl]-, trisodium salt
Assessment of irritating effects:
Not irritating to the skin. Eye contact causes irritation.

Information on: Acetic acid, hydroxy-, monosodium salt
Assessment of irritating effects:
Skin contact causes irritation. May cause severe damage to the eyes.

Skin:
Species: rabbit
Result: non-irritant
Method: BASF-Test

Eye:
Species: rabbit
Result: Irritant.
Method: BASF-Test

Sensitization:
Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Information on: trisodium nitrilotriacetate
Indication of possible carcinogenic effect in animal tests.
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Aspiration Hazard:
Not relevant.

12. Ecological Information

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

Chronic:
OECD Guideline 210 Flow through.
Brachydanio rerio /NOEC (35 d): >= 36.9 mg/l
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.

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

Chronic:
OECD Guideline 211 semistatic Daphnia magna (NOEC) 21 d 25 mg/l
Nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants
Toxicity to aquatic plants:
green algae/EC50 (72 h): > 100 mg/l
Nominal concentration.
Microorganisms

Toxicity to microorganisms:
OECD Guideline 209 aquatic activated sludge, domestic/EC20 (30 min): > 500 mg/l
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.

Non-Mammals

Other terrestrial non-mammals:

Study scientifically not justified.

Plant

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

Soil living organisms

Toxicity to soil dwelling organisms:
OECD Guideline 207 artificial soil Eisenia fetida/LC50 (14 d): 156 mg/kg
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Degradability / Persistence
Biological / Abiological Degradation
Evaluation: Was found to be potentially biodegradable.
Not readily biodegradable (by OECD criteria).

Bioaccumulation
sunfish, bluegill (28 d) Bioconcentration factor approx. 1.8
Does not significantly accumulate in organisms.

Other adverse effects:

Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:
Must be disposed of or incinerated in accordance with local regulations.

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

14. Transport Information

Land transport
15. Regulatory Information

**Federal Regulations**

**Registration status:**
- Chemical: DSL, CA released / listed
- Cosmetic: DSL, CA released / listed

**WHMIS classification:**
- D1B: Materials Causing Immediate and Serious Toxic Effects - Toxic material
- D2A: Materials Causing Other Toxic Effects - Very toxic material
- D2B: Materials Causing Other Toxic Effects - Toxic material

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other Information

Recommended use: Chelate

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.