

Date Prepared: 03/03/2011

Reviewed On: 02/11/2011

1 Identification of the substance/mixture and of the company/undertaking

- **Product Identifier**
- **Product Name:** Trypsin 250
- **Catalog Number:** 215240
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 BD Diagnostic Systems
 7 Loveton Circle
 Sparks, MD 21152
 Telephone.: (410) 771 - 0100 or (800) 638 – 8663
- **Information Department:** Technical Service
- **Emergency telephone number:**
 In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

2 Composition/information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description:**
 9002-07-7 Trypsin
- **Identification number(s):**
- **EINECS Number:** 232-650-8
- **Index number:** 647-010-00-7
- **Chemical characterization:** Mixture
- **Description:** Mixture consisting of the following components.

- **Dangerous Components:**

9002-07-7	trypsin	82.5%
57-50-1	sucrose	17.5%

3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Xn; Harmful
 R20/22: Harmful by inhalation and if swallowed.
-  Xi; Irritant
 R36/37/38-42/43: Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.
- **Classification system:**
 The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
 This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR), and the MSDS contains all of the information required by the CPR.
- **Code letter and hazard designation of product:**
 Xn Harmful

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Hazard-determining components of labelling:

 trypsin
 sucrose

Risk phrases:

 20/22 Harmful by inhalation and if swallowed.
 36/37/38 Irritating to eyes, respiratory system and skin.
 42/43 May cause sensitization by inhalation and skin contact.

Safety phrases:

 7 Keep container tightly closed.
 22 Do not breathe dust.
 24/25 Avoid contact with skin and eyes.
 36/37 Wear suitable protective clothing and gloves.

Classification system
NFPA ratings (scale 0-4)

 Health = 1
 Fire = 0
 Reactivity = 0

HMIS ratings (scale 0-4)

 Health = *1
 Fire = 0
 Reactivity = 0

4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air and seek medical advice.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Immediately call a doctor.
- **Information for doctor** Show this product label or this MSDS.

5 Firefighting measures

- **Suitable extinguishing agents**
CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** Nitrogen oxides (NO_x)
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Wipe up with damp sponge or mop.
- **Methods and material for containment and cleaning up:** No special measures required.
- **Reference to other sections**
See Section 7 for information on safe handling.

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 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** < 30 °C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see Section 7.
- **Components with limit values that require monitoring at the workplace:**
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
- **Breathing equipment:**
 In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

9 Physical and chemical properties

- **General Information**
- **Appearance:**

Form:	Solid. Powder
Color:	Whitish
Odor:	Characteristic
- **Change in condition**

Melting point/Melting range:	Not determined
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Boiling point/Boiling range:	Not determined
· Flash point:	Not applicable
· Flammability (solid, gaseous)	Product is not flammable.
· Danger of explosion:	Product does not present an explosion hazard.
· Density:	Not determined
· Solubility in / Miscibility with Water:	Soluble
· Solvent content:	
Solids content:	100.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Hazardous decomposition products:** Nitrogen oxides (NOx)

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

9002-07-7 trypsin

Oral	LD50	1526 mg/kg (mou)
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- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **Subacute to chronic toxicity:** Target organs: eyes and skin

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Exposure may cause allergic reaction in individuals sensitive to proteolytic enzymes.

12 Ecological information

- **Acquatic toxicity:** No further relevant information available.

- **Ecotoxicological effects:**

- **Other information:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.

- **Additional ecological information:**

- **General notes:** Not known to be hazardous to water.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Smaller quantities can be disposed of with solid waste.
Must adhere to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **TDG (Transport dangerous goods):**
- **TDG class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

15 Regulatory information

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

- **Carcinogenic categories**

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

57-50-1 sucrose

A4

- **Canadian Substance Listing**

- **Canadian Domestic Substance List (DSL)**

57-50-1 sucrose

- **Canadian Ingredient Disclosure List (limit 0.1%)**

None of the ingredients is listed.

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· Canadian Ingredient Disclosure List (limit 1%)

None of the ingredients is listed.

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· Department issuing MSDS:

Environmental, Health & Safety

Created by Michael J. Spinazzola

· Contact: Technical Service Representative

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