Material Safety Data Sheet
`acc. to ISO/DIS 11014`

Date Prepared: 05/12/2016
Reviewed On: 05/12/2016

1 Identification

- **Product Identifier:**
  - **Product Name:** Trehalose
  - **Catalog Number:** 218010
  - **EC number:** 202-739-6

- **Application of the substance / the mixture** Laboratory Chemicals

- **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
    Email Address: Technical_Services@bd.com
  - **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 Hazard(s) identification

- **Classification of the substance or mixture**
  The substance is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **Classification system**
  - **NFPA ratings (scale 0-4)**
    - Health = 0
    - Flammability = 0
    - Reactivity = 0
  - **HMIS ratings (scale 0-4)**
    - Health = 0
    - Flammability = 0
    - Reactivity = 0

- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

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Product Name: Trehalose

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description:
  - Identification number(s):
- EC number: 202-739-6

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Seek medical treatment in case of complaints.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: If symptoms persist consult doctor.
  - Information for doctor: Show this product label or this MSDS.
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting 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
  - Advice for firefighters
  - Protective equipment: No special measures required.

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: No dangerous substances are released.
7 Handling and storage

- Handling
  - Precautions for safe handling: No special measures required.
  - Information about protection against explosions and fires:
    No special measures required.

- Conditions for safe storage, including any incompatibilities
  - Storage
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility:
      Store away from oxidizing agents.
    - Further information about storage conditions: None.
  - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems:
  No further data; see Section 7.

- Control parameters
  - Components with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
  - Personal Protective Equipment
    - General protective and hygienic measures
      The usual precautionary measures for handling chemicals should be followed.
    - Breathing equipment: Not required.
    - 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

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Liquid
**Product Name: Trehalose**

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
  - **Primary irritant effect:**
    - on the skin: No irritating effect.
    - on the eye: No irritating effect.
  - **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
  The product is not subject to OSHA classification according to internally approved calculation methods for preparations.
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
  The substance is not subject to classification.
Product Name: Trehalose

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Ecotoxic effects:
  - Other information:
    - The ecological effects have not been thoroughly investigated, but currently none have been identified.
  - Additional ecological information:
  - General notes: Generally not hazardous for water.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation
    - Must adhere to official regulations.
    - Smaller quantities can be disposed of with solid waste.

- 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

- UN-Number
  - DOT, ADN, IMDG, IATA: Void

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: Void
## Transport hazard class(es)
- DOT, ADN, IMDG, IATA

### Class
- Void

### Packing group
- DOT, IMDG, IATA
- Void

### Environmental hazards:
- Marine pollutant:
  - No

### Special precautions for user
- Not applicable.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
If "void" appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

### UN "Model Regulation"
- Void

## 15 Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

- **TSCA (Toxic Substances Control Act)**
  - Substance is listed.

- **Canadian Substance Listing**

- **Canadian Domestic Substance List (DSL)**
  - Substance is listed.

- **Canadian Ingredient Disclosure List (limit 0.1%)**
  - Substance is not listed.

- **Canadian Ingredient Disclosure List (limit 1%)**
  - Substance is not listed.

- **GHS label elements**
  - Void

- **Hazard pictograms**
  - Void

- **Signal word**
  - Void

- **Hazard statements**
  - Void

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
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 SDS:
  Environmental, Health & Safety
  Created by Michael J. Spinazzola
· Contact: Technical Service Representative
· Date of preparation / last revision 05/12/2016 / -

· Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  OSHA: Occupational Safety & Health
  LC50: Lethal concentration, 50 percent