

Safety Data Sheet Trehalose Dihydrate

Section 1 - Chemical Product and Company Identification

1.1 Product Identifiers:

Product Name: Trehalose Dihydrate

Catalog Number(s): TE3250

Synonyms: α -D-Glucopyranosyl- α -D-Glucopyranoside, α , α -Trehalose

RTECS#: Not Available

CAS# 6138-23-4 is unlisted.

1.2 Supplier Details:

BioSpectra, Inc.

100 Majestic Way

Bangor, PA 18013

610.599.3400

1.3 Emergency Numbers

US & Canada: 1-800-424-9300

Outside the US & Canada: +1 703-527-3887

1.4 Recommended Use of the Chemical and Restrictions of Use:

Laboratory chemicals, Manufacture of substances

Section 2 – Hazard Identification

2.1 Classification of the Substance or Mixture:

GHS Classification in accordance with 29 CFR 1910:

No known OSHA hazards

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Inhalation: May be harmful to respiratory tract.

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

2.2 GHS Label Element Including Precautionary Statements

Not a hazardous substance or mixture

2.3 Hazards not Classified or not Covered by the GHS

None.

Section 3 – Composition and Information on Ingredients

3.1 Substances:

| CAS# | Chemical Name | Percent | EINECS/ELINCS |
|-----------|---------------------|---------|---------------|
| 6138-23-4 | Trehalose Dihydrate | 98-100% | None |

Molecular Formula : $C_{12}H_{22}O_{11} \cdot 2H_2O$

Molecular Weight : 378.33 g/mol

Synonyms : α -D-Glucopyranosyl- α -D-glucopyranoside α , α -Trehalose

Section 4 - First Aid Measures

4.1 Description of Necessary First Aid Measures:

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid if irritation develops.

Skin: Wash with soap and flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. If victim is conscious rinse out mouth with water. Get medical attention.

Inhalation: Remove to fresh air. If not breathing give artificial respiration.

Section 5 - Firefighting Measures

5.1 General Information: As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Explosion will appear as fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.2 Extinguishing Media: In case of fire, use water spray mist, dry chemical, chemical foam, or carbon dioxide.

5.3 Hazardous Decomposition Products: Carbon oxides

5.4 Auto Ignition Temperature: Not Available

5.5 Flash Point: Not Available

Section 6 - Accidental Release Measures

6.1 General Information: Use proper personal protective equipment as indicated in Section 8. Avoid dust and aerosol formation. Avoid breathing dust, vapours, mist or gas.

6.2 Spills/Leaks: Remove all sources of ignition. Do not let enter drains. Ventilate area of leak or spill. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

Section 7 - Handling and Storage

7.1 Precautions for Safe Handling: Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for Storage: Keep container tightly closed in a dry and well-ventilated place.

Section 8 - Exposure Controls and Personal Protection

8.1 Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

8.2 Exposure Limits:

| Chemical Name | ACGIH | NIOSH | OSHA - Final PELs |
|---------------------|-------------|-------------|-------------------|
| Trehalose Dihydrate | None Listed | None Listed | None Listed |

8.3 OSHA Vacated PELs: No OSHA Vacated PELs are listed for this chemical.

8.4 Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure. Wear impervious gloves. Nitrile rubber with layer thickness 0.11mm. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. A respiratory protection program that meets OSHA's 29 CFR '1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

9.1 Chemical Property Information:

| | |
|---|--|
| Physical State: Solid | Freezing/Melting Point: 97-99°C (207-210°F) |
| Appearance: White Crystalline Powder | Boiling Point: Not Available |
| Odor: Odorless | Decomposition Temperature: Not Available |
| pH: Not Available | Solubility: 50g/L |
| Vapor Pressure: Not Available | Specific Gravity/Density: Not Available |
| Vapor Density: Not Available | Molecular Formula: C ₁₂ H ₂₂ O ₁₁ · 2 H ₂ O |
| Viscosity: Not Available | Molecular Weight: 378.33 g/mol. |

Section 10 - Stability and Reactivity

10.1 Chemical Stability: Stable under normal temperatures and pressures.

10.2 Conditions to Avoid: Incompatible materials, dust generation, excess heat and ignition sources.

10.3 Incompatibilities with Other Materials: Strong oxidizers.

10.4 Hazardous Decomposition Products: Not Available

10.5 Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

11.1 Toxicological Effects:

LD50/LC50: Not Available.

Carcinogenicity CAS# 6138-23-4: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

11.2 Potential Health Effects:

Epidemiology: Not Available

Teratogenicity: Not Available

Reproductive Effects: Not Available

Neurotoxicity: Not Available

Mutagenicity: Not Available

Other Studies: Not Available

Section 12 - Ecological Information

12.1 Ecotoxicity: Not Available

12.2 Environmental Fate: Not Available

12.3 Physical/Chemical: Not Available

Section 13 - Disposal Considerations

13.1 Disposal Methods: Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

| Regulations: | US DOT | IATA | RID/ADR | IMO | Canada TDG |
|----------------|---------------|---------------|---------------|---------------|---------------|
| Shipping Name: | Not Available | Not Available | Not Available | Not Available | Not Available |
| Hazard Class: | | | | | |
| UN Number: | | | | | |
| Packing Group: | | | | | |

Section 15 - Regulatory Information

15.1 US FEDERAL

TSCA CAS# 6138-23-4 is not listed on the TSCA inventory.

Health & Safety Reporting List: Not Available

Chemical Test Rules: Not Available

Section 12b: Not Available

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ): Not Available

Section 302 (TPQ): Not Available

SARA Codes: Not Available

Section 313: Not Available

Clean Air Act: Not Available

Clean Water Act: Not Available

OSHA: Not Available

STATE:

Pennsylvania Right To Know Components

Trehalose Dihydrate CAS-No.6138-23-4

New Jersey Right To Know Components

Trehalose Dihydrate CAS-No.6138-23-4

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16 - Additional Information

16.1 Hazard Ratings

HMIS Classification:

Health hazard: 1

Flammability: 1

Physical Hazards: 0

Personal Protection: E

NFPA Rating:

Health hazard: 1

Fire: 1

Reactivity Hazard: 0

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