Material Safety Data Sheet

Trehalose – Dihydrate – EXTR 500-05

Section 1 – Chemical Product and Company Identification

OPS Diagnostics, LLC
291 US Highway 22 East
Building 6
Lebanon, NJ 08833
USA
TEL: (908) 253-3444 For Emergencies, Call (908) 253-3444

Product Name: D(+) Trehalose - Dihydrate
MSDS Number: Trade Secret
Synonyms: alpha-D-Glucopyranosyl-alpha-D-glucopyranoside
Chemical Formula: C12H22O11•2H2O
Molecular Weight: 378.33 g/mole

Section 2 – Composition, Information on Ingredients
D+ Trehalose, CAS# 6138-23-4, 100% by weight.

Section 3 – Hazards Identification
EMERGENCY OVERVIEW
Appearance: White powder.
Caution! May cause eye and skin irritation. Powder may cause respiratory and digestive tract irritation. The toxicological properties of this material have not been fully investigated.
Target Organs: None known.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. Low hazard for usual industrial handling.
Ingestion: Not available. Expected to be a low ingestion hazard.
Inhalation: Low hazard for usual industrial handling. Inhalation of dust may cause respiratory tract irritation.
Chronic: Chronic inhalation of fine dust may cause lung damage.

Section 4 – First Aid Measures
Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.
Section 5 – Fire Fighting Measures
General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Extinguishing Media: Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.

Section 6 – Accidental Release Measures
General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 – Handling and Storage
Handling: Wash thoroughly after handling. Use with adequate ventilation. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Store the reagent in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

Section 8 – Exposure Controls, Personal Protection
Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits
None listed for ACGIH, NIOSH, and OSHA – Final PELs.

OSHA Vacated PELs: No OSHA Vacated PELs are listed for this chemical. D-Mannitol: No OSHA Vacated PELs are listed for this chemical.

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 gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: 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 respirator use.

Section 9 – Physical and Chemical Properties
Physical State: Solid (Crystals solid).
Appearance: White.
Odor: None reported.
\( \text{pH} \): Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: Decomposes.

Section 10 – Stability and Reactivity
Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, dust generation, strong oxidants.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported
Section 11 – Toxicological Information
RTECS#: Unlisted
CAS#: 6138-23-4
LD50/LC50: Not available.
Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found

Section 12 – Ecological Information
No information available.

Section 13 – Disposal Considerations
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 – Transportation Information
US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class: Not applicable.
UN Number: Not applicable.
Packing Group: Not applicable.
Canada TDG
No information available.

Section 15 – Regulatory Information
US FEDERAL
TSCA
Listed on the TSCA inventory. It is for research and development use only.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
Section 313
No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.
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STATE Not present on state lists from CA, PA, MN, MA, FL, or NJ.
California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.
Risk Phrases: Not available.

Safety Phrases: 
S 37 Wear suitable gloves.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 28A After contact with skin, wash immediately with plenty of water

WGK (Water Danger/Protection)
0
No information available.

Canada - DSL/NDSL
Listed on Canada’s DSL List.

Canada - WHMIS
This product has a WHMIS classification of D2B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 – Additional Information
MSDS Creation Date: 1/02/2006
Revision #2 Date: 8/10/2011

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall OPS Diagnostics be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if OPS Diagnostics, LLC has been advised of the possibility of such damages.