



# Material Safety Data Sheet

12601 Twinbrook Parkway,  
Rockville, MD 20852 USA

Phone Calls: 301-816-8129  
8 a.m. to 5 p.m. EST Mon. - Fri.

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## MALTITOL

Catalog Number: 1374907

Revision Date:

July 1, 2007

### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**Common Name:** Maltitol

**Manufacturer:** U. S. Pharmacopeia

**Responsible Party:** Reference Standards Technical Services

**Mailing Address:** 12601 Twinbrook Parkway, Rockville, MD 20852 USA

**Phone:** 301-816-8129

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**Product Use:** USP Reference Standards and Authentic Substances are used for chemical tests and assays in analytical, clinical, pharmaceutical, and research laboratories.

### SECTION 2 - HAZARD INFORMATION

**EMERGENCY OVERVIEW:** This material is considered to be nontoxic and non-hazardous in small quantities and under conditions of normal occupational exposure.

**Adverse Effects:** Ingestion of large quantities may produce an intense sweet taste, flatulence, and diarrhea. Possible allergic reaction to material if inhaled, ingested, or in contact with skin.

**Overdose Effects:** n/f

**Acute:** Possible eye, skin, gastrointestinal, and/or respiratory tract irritation.

**Chronic:** Possible hypersensitization.

**Medical Conditions Aggravated by Exposure:** Hypersensitivity to material.

**Cross Sensitivity:** n/f

**Target Organs:** n/f

**For additional information on toxicity, see Section 11.**

### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

**Common Name:** Maltitol

**Formula:** C<sub>12</sub>H<sub>24</sub>O<sub>11</sub>

**Synonym:** D-Maltitol

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**Chemical Name:** D-Glucopyranosyl-D-glucitol; D-Glucitol, 4-O-alpha-glucopyranosyl

**CAS:** 585-88-6

**RTECS Number:** LZ4394000

**Chemical Family:** Polyhydric alcohol (carbohydrate)

**Therapeutic Category:** Sweetener

**Composition:** Pure Material

## SECTION 4 - FIRST AID MEASURES

**Inhalation:** May cause irritation. Remove to fresh air.

**Eye:** May cause irritation. Flush with copious quantities of water.

**Skin:** May cause irritation. Flush with copious quantities of water.

**Ingestion:** May cause irritation. Flush out mouth with water.

**General First Aid Procedures:** Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

### Note to Physicians

**Overdose Treatment:** For current information about the treatment of overdose, consult a certified Regional Poison Control Center by calling the number listed in your local telephone directory.

## SECTION 5 - FIREFIGHTING MEASURES

**Extinguisher Media:** Water spray, dry chemical, carbon dioxide, or foam as appropriate for surrounding fire and materials.

**Fire and Explosion Hazards:** This material is assumed to be combustible. As with all dry powders, it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

**Firefighting Procedures:** As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Spill Response:** Wear approved respiratory protection, chemically compatible gloves, and protective clothing. Wipe up spillage or collect spillage using a high-efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

**Storage:** Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

## SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

**Engineering Controls:** Engineering controls such as exhaust ventilation are recommended.

**Respiratory Protection:** Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

**Gloves:** Chemically compatible

**Eye Protection:** Safety glasses or goggles

**Protective Clothing:** Protect exposed skin.

**Exposure Limits:** n/f

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| <b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b> |
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**Properties as indicated on the MSDS are general and not necessarily specific to the USP Reference Standard Lot provided.****Appearance and Odor:** White crystalline powder; odorless.**Odor Threshold:** n/f**pH:** n/f**Melting Range:** 146 - 151° C**Boiling Point:** n/f**Flash Point:** n/f**Autoignition Temperature:** 400° C**Evaporation Rate:** n/f**Upper Flammability Limit:** n/f**Lower Flammability Limit:** n/f**Vapor Pressure:** n/f**Vapor Density:** n/f**Specific Gravity:** 0.6 - 0.7 grams/cm<sup>3</sup>**Solubility in Water:** Very soluble**Fat Solubility:** n/f**Other Solubility:** Practically insoluble in ethanol.**Partition Coefficient: n-octanol/water:** n/f**Percent Volatile:** n/f**Reactivity in Water:** n/f**Explosive Properties:** n/f**Oxidizing Properties:** n/f**Formula:** C<sub>12</sub>H<sub>24</sub>O<sub>11</sub>**Molecular Weight:** 344.31

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## SECTION 10 - STABILITY AND REACTIVITY

**Conditions to Avoid:** n/f

**Incompatibilities:** Strong oxidizing agents

**Decomposition Products:** When heated to decomposition, material emits toxic fumes. Emits toxic fumes under fire conditions.

**Stable?** Yes      **Hazardous Polymerization?** No

## SECTION 11 - TOXICOLOGICAL PROPERTIES

**Oral Rat:** LD50: n/f

**Oral Mouse:** LD50: n/f

**Other Toxicity Data:** n/f

**Irritancy Data:** n/f

**Corrosivity:** n/f

**Sensitization Data:** n/f

**Listed as a Carcinogen by:**      **NTP:** No      **IARC:** No      **OSHA:** No

**Other Carcinogenicity Data:** No

**Mutagenicity Data:** In the bacterial reversion assay, maltitol was not mutagenic in *S. typhimurium* and *E. coli*, with and without metabolic activation. In the mouse bone marrow micronucleus test, no increase in the frequency of micronucleated erythrocytes was observed. Maltitol did not induce sister chromatid exchange in human peripheral lymphocytes in vitro. It was weakly positive for micronucleus formation in human peripheral lymphocytes in vitro.

**Reproductive and Developmental Effects:** n/f

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecological Information:** Easily biodegradable.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Disposal:** Dispose of waste in accordance with all applicable Federal, State, and local laws.

## SECTION 14 - TRANSPORT INFORMATION

**Shipping Name:** n/f

**Class:** n/f

**UN Number:** n/f

**Packing Group:** n/f

**Additional Transport Information:** n/f

## SECTION 15 - REGULATORY INFORMATION

**U.S. Regulatory Information:** n/f

**International Regulatory Information:** EINECS#: 209-567-0

## SECTION 16 - OTHER INFORMATION

**Revision:**                      01-Jul-07

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**MALTITOL****Catalog Number:** 1374907**Revision Date:**

July 1, 2007

**Previous Revision Date:**

22-Nov-02