



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

MSDS DATE: 06 Jun, 2011

Notice

NSF Reference Standards are for test and assay use only and are not intended for human or animal consumption. This document communicates information relating to test and assay use only and may not be applicable for any unauthorized use.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Mannitol
Catalog Code: RS1-0014
Synonym: D(-)-mannitol
Chemical Formula: $C_6H_{14}O_6$
CAS #: 69-65-8

Contact Information:

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Name: Mannitol

CAS#: 69-65-8

% by Weight: 100%

Toxicological Data on Ingredients: Not Applicable

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), or eye contact (irritant), of inhalation.

Potential Chronic Health Effects:



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

MSDS DATE: 06 Jun, 2011

CARCINOGENIC EFFECTS: Not Available
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available
DEVELOPMENTAL TOXICITY: Not available

SECTION 4: FIRST AID MEASURES

Eye Contact:

Check for and remove contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes and thoroughly wash before reuse.

Serious Skin Contact:

Not Available

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

Serious Inhalation:

Not available.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing. Seek medical attention immediately.

Serious Ingestion: Not available.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 460°C (860°F)

Flammable Limits: Not available.

Flash Points: Not available

Products of Combustion: These products are carbon oxides (CO, CO₂)

Special Remarks on Explosion Hazards: Not available.

Fire Hazards in Presence of Various Substances:

Not available.

Explosion Hazards in Presence of Various Substances:



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

MSDS DATE: 06 Jun, 2011

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Special Remarks on Fire Hazards: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional requirements.

Large Spill:

Use appropriate tools to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional requirements.

SECTION 7: HANDLING AND STORAGE

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

If operations generate dust, fume or mist, use local exhaust ventilation or other appropriate engineering controls to keep exposure to airborne contaminants below the exposure limit.



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

MSDS DATE: 06 Jun, 2011

Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid, crystalline powder

Odor: Not Available

Taste: Not available

Molecular Weight: 182.17 g/mol

Color: White

pH (1% soln/water): Not available

Boiling Point: Not available.

Melting Point: 166°C (330.8°F)

Critical Temperature: Not available

Specific Gravity: 1.52

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility:

Soluble in cold water.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

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Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 13500 mg/kg [Rat].

Chronic Effects on Humans: Not available

Other Toxic Effects on Humans: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Special Remarks on Toxicity to Animals: Not available

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: Mannitol

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Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States)

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Mannitol

Other Regulations: Not Available

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada). Does not have a WHMIS classification.

DSCL (EEC):

This product is not classified according to EU regulations

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.



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SECTION 16: OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

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