Alpha Chemika
ISO 9001 QUALITY SYSTEM CERTIFIED ORGANIZATION
MATERIAL SAFETY DATA SHEET
MSDS
Savgan Heights ; 102 ,B Wing ; R.T.O. Lane ,Andheri (West) Mumbai - 400053 , INDIA

Section 1 - Chemical Product and Company Identification

Product Name : D (-) MANNITOL

Synonyms: Manna Sugar; Mannite; Mannitol,d- ; 1,2,3,4,5,6-Hexanehexol
CAS No.: 69-65-8
Molecular Weight: 182.17
Chemical Formula: $C_6H_{14}O_6$

Section 2 - Composition, Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
D-Mannitol	69-65-8	90 - 100%	Yes

Section 3 - Hazardous Identification

Emergency Overview

WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 0 - None
Flammability Rating: 2 - Moderate
Reactivity Rating: 0 - None
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
Large quantities of inhaled material could cause irritation of the upper respiratory tract. A tickling cough is a common symptom.
Ingestion:
May cause gastric irritation, nausea and diarrhea. Large doses produce vomiting, chills, dizziness, chest pain, heart failure and pulmonary edema.
Skin Contact:
May cause irritation and discoloration of sensitive skin areas.
Eye Contact:
May cause irritation, redness and pain.
Chronic Exposure:
No information found.
Aggravation of Pre-existing Conditions:
No information found.

Section 4 - First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion:
If large amounts were swallowed, give water to drink and get medical advice.
Skin Contact:
Wash exposed area with soap and water. Get medical advice if irritation develops.
Eye Contact:
Wash thoroughly with running water. Get medical advice if irritation develops.

Section 5 - Fire Fighting Measures

Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.
Mannitol: Flash Point: > 149C (300F)
Minimum dust cloud ignition temperature: 460C (860F)
Explosion:
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Mannitol: Minimum explosible concentration = 0.065 g/l; Maximum explosion pressure: 97 lb/sq. in.
Fire Extinguishing Media:
Water spray, carbon dioxide, or dry powder.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Pressure from the extinguishing media may cause severe dusting.

Section 6 - Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. 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

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Section 8 - Exposure Controls, Personal Protection

Airborne Exposure Limits:
None established.
Ventilation System:
In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.
Personal Respirators (NIOSH Approved):
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.
WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear protective gloves and clean body-covering clothing.
Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Appearance:
White powder.
Odor:
Odorless.
Solubility:
1 gram/5.5 ml of water.
Relative Density:
1.52
pH:
No information found.
% Volatiles by volume @ 21C (70F):
0
Boiling Point:
290 - 295C (554 - 563F)
Melting Point:
ca. 167C (ca. 333F)
Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate (BuAc=1):
No information found.

Section 10 - Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Strong oxidizers.
Conditions to Avoid:
Heat, flames, ignition sources and incompatibles.

Section 11 - Toxicological Information

Mannitol: Oral rat LD50: 13,500 mg/kg. Investigated as a tumorigen and mutagen.

--------\Cancer Lists\----------

	---NTP Carcinogen---		
Ingredient	Known	Anticipated	IARC Category
D-Mannitol (69-65-8)	No	No	None

Section 12 - Ecological Information

Environmental Fate: No information found.
Environmental Toxicity:
No information found.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 - Transport Information

Not regulated.

Section 15 - Regulatory Information

--------\Chemical Inventory Status - Part 1\----------

Ingredient	TSCA	EC	Japan	Australia
D-Mannitol (69-65-8)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\----------

		--Canada--		
Ingredient	Korea	DSL	NDSL	Phil.
D-Mannitol (69-65-8)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------

	-SARA 302-		------SARA 313------	
Ingredient	RQ	TPQ	List	Chemical Catg.
D-Mannitol (69-65-8)	No	No	No	No

--------\Federal, State & International Regulations - Part 2\----------

	-RCRA-	-TSCA-	
Ingredient	CERCLA	261.33	8(d)
D-Mannitol (69-65-8)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: No Chronic: No Fire: Yes Pressure: No
Reactivity: No (Pure / Solid)

Section 16 - Additional Information

NFPA Ratings: Health: **1** Flammability: **1** Reactivity: **0**
Label Hazard Warning:
WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.
Label Precautions:
Store in a tightly closed container.
Avoid dust cloud in presence of an ignition source.
Maintain adequate ventilation.
Label First Aid:
Not applicable.
Product Use:
Laboratory Reagent.
Revision Information:
No Changes.