

SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME:	D-Mannitol, USP Grade
PRODUCT NUMBER:	M562
COMPANY INFO:	<i>Phyto</i> Technology Laboratories® PO Box 12205, Shawnee, KS 66282-2205 Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442 www.phytotechlab.com
EMERGENCY PHONE NUI (INFOTRAC):	MBER 1-800-535-5053 - US Only 1-352-323-3500 - International
RECOMMENDED USE:	For Research Use Only
RESTRICTIONS ON USE:	Products sold by <i>Phyto</i> Technology Laboratories® are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Not a hazardous substance or mixture.

GHS Label elements, including hazard and precautionary statements:

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS: - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms:	Mannite
CAS No:	69-65-8
Formula:	$C_6H_{14}O_6$
Molecular Weight:	182.17g/mol
EC No.:	200-711-8

Ingredient	CAS Number	Percent	Hazardous
D-Mannitol	69-65-8	>96 %	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.		
Route of Entry	Symptoms	First Aid Procedures	
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.	
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.	

Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.	
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.	
Most Important Symptoms or Effects, Both Acute and Delayed:			
See section 2 and/or section 11			
Recommendation for	Immediate Medical Care and Special Tre	atment Needed:	
No data avai	lable		

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self- contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let product enter drains.
7. HANDLING AND STORAGE	
Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide adequate ventilation at places where dust is formed. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Product is hygroscopic.
Incompatibilities:	Strong oxidizing agent
Recommended Storage Temperature:	Room Temperature

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs):		(PELs):	None
Threshold	d Limit Values (TLVs):		None
Engineering Controls:			Handle in accordance to general industrial hygiene and safety practice.
Personal	Protective Equipment (PPE):		
	Eye/Face Protection:		safety glasses or goggles. Have eye-washing facilities readily available where ct can occur.
	Skin Protection:	Protective	gloves
	Body Protection:	Lab coat	
	Respiratory Protection:	Use N95 (ry protection is not required. (US) or type P1 (EN 143) dust mask where dust level is nuisance. /MSHA approved air purifying respirator is recommended where airborne
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concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to o	off-white powder		
pH (0.10 g/L):	5.25 - 6.2	5.25 - 6.25		
Solubility:	Soluble in	n water		
Melting Range:	No data a	vailable		
Vapor Density:	No data a	vailable		
Vapor Pressure:	No data a	vailable		
Specific Gravity:	No data a	No data available		
Odor:	Odorless			
Odor Threshold:	No data a	vailable		
Viscosity:	No data a	vailable		
Relative Density:	No data a	vailable		
Evaporation Rate:		No data available		
Initial Boiling Point Boiling Range:	and	No data available		
Flammability (solid,	gas):	No data available		
Partition coefficient: n-octanol/water):	:	No data available		
Auto-ignition Temp	erature:	No data available		
Decomposition Tem	perature:	No data available		
Flash Point (Closed	Cup):	No data available		
Flammable Limits:		Upper (%) – No data available	Lower (%) – No data available	

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions of use
Possibility of Hazard Reactions:	No data available
Conditions to Avoid:	Incompatibles, excessive heat
Incompatibles Materials:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide

11. TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg) LD ₅₀ (IV-Mouse)(mg/Kg) LD ₅₀ (IV-Rat)(mg/Kg)			13,500
)	No data available
				No data available
Carcinogenicity:	NTP:	No		
	IARC:	No		
	OSHA Reg:	No		
Reproductive Toxicity:	No data availab	le		
Specific Target Organ Toxicity:	Single Exposure: No data a		available	
	Repeated Exposure:		No data	available

Target Organs:	No data available
Routes of Entry:	Inhalation and ingestion
NIOSH/RTECS NO:	OP2060000

The toxicological properties of this product have not been thoroughly investigated

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12. ECOLOGICAL	INFORMATI	ON				
		No data available				
Persistence and Degradability:		No data available				
Bioaccumulative Potential:		No data available				
Mobility in Soil:		No data available				
		No data ava	ilable			
13. DISPOSAL CON						
		Dispose in accordance with all applicable federal, state, and local environmental regulations.				
14. TRANSPORT I	NFORMATIO	N				
Domestic (D.O.T.): Proper Shipp		ing Name:	CHEMICALS, N.O.S. (NON-REGULATED)			
Hazard Class: Reportable Quantity: UN/NA: Labels:		:	N/A			
		uantity:	N/A			
			N/A			
			N/A			
International:						
IMDG:	Proper Shippi	ing Name:	CHEMICALS, N.O.S. (NON-REGULATED)			
	Hazard Class:		N/A			
UN/NA:			N/A			
	Labels:		N/A			
IATA:	Proper Shippi	ing Name:	CHEMICALS, N.O.S. (NON-REGULATED)			
	Hazard Class:	:	N/A			
	UN/NA:		N/A			
	Labels:		N/A			
15. REGULATORY	INFORMATI	ION				
TSCA:			Yes			
SARA TITLE III:						
Section 302 (EHS) Ingredients:			No			
Section 313 Ingredients:			No			
Section 304 (EHS/CERCLA) Ingredients:		gredients:	No			

No SARA Hazards

Section 311/312 Hazard:

Massachusetts Right to Know Components:	This product is not on the Massachusetts Substance List (MSL).
Pennsylvania Right to Know Components:	This product is not listed on the Pennsylvania Code's Hazardous Substance List (Chapter 323).
New Jersey Right to Know Components:	This product is not listed amongst the New Jersey Right to Know Hazardous Substance Fact Sheets
California Prop. 65 Components:	This product is not known to the State of California to cause cancer or reproductive toxicity.
16 OTHER DECOMATION	

16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Flammability	Physical Hazard	Personal Protection
	0	0	0	В
NFPA Rating:	Health Hazard	Fire Hazard	Instability	Special Hazard
	0	0	0	

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