



Material Safety Data Sheet  
D-(+)-Maltose Monohydrate

MSDS# 13585

### Section 1 - Chemical Product and Company Identification

MSDS Name: D-(+)-Maltose Monohydrate  
Catalog Numbers: BP684-500, M75-100  
Synonyms: A disaccharide found in starch; 4-(alpha-D-glucosido)-D-glucose monohydrate.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

### Section 2 - Composition, Information on Ingredients

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Risk Phrases:

CAS#: 6363-53-7  
Chemical Name: D-(+)-Maltose monohydrate  
%: 90  
EINECS#: unlisted  
Hazard Symbols:

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Text for R-phrases: see Section 16

Hazard Symbols: None listed  
Risk Phrases: None listed

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Caution! May cause respiratory tract irritation. May cause eye and skin irritation. Target Organs: None.

#### Potential Health Effects

Eye: May cause eye irritation.  
Skin: May cause skin irritation.  
Ingestion: May cause irritation of the digestive tract.  
Inhalation: May cause respiratory tract irritation.  
Chronic: No information found.

### Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.  
Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.  
Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.  
Inhalation: If inhaled, remove to fresh air. 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 As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH

Information: (approved or equivalent), and full protective gear. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 1; flammability: 1; instability: 0;

#### 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. Avoid generating dusty conditions. Provide ventilation.

#### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Maltose	none listed	none listed	none listed
D-(+)-Maltose monohydrate	none listed	none listed	none listed

OSHA Vacated PELs: Maltose: None listed D-(+)-Maltose monohydrate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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: Glove protection is not normally required.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: colorless

Odor: none reported

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 130 deg C ( 266.00°F)

Decomposition Temperature: Not available

Solubility in water: 1080 g/l (20°C) in water.

Specific Gravity/Density: 1.54 (water=1)

Molecular Formula: C12H22O11.H2O

Molecular Weight: 360.29

#### Section 10 - Stability and Reactivity

Chemical Stability: Stable.  
Conditions to Avoid: Dust generation, exposure to moist air or water.  
Incompatibilities with Other Materials: Strong oxidizing agents.  
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.  
Hazardous Polymerization: Has not been reported.

#### Section 11 - Toxicological Information

RTECS#: CAS# 69-79-4: OO5250000  
CAS# 6363-53-7: None listed  
RTECS:  
CAS# 69-79-4: Oral, mouse: LD50 = >44 gm/kg;  
LD50/LC50: Oral, rat: LD50 = 34800 mg/kg;  
RTECS:  
CAS# 6363-53-7:  
Carcinogenicity: Maltose - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
D-(+)-Maltose monohydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Other: See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 69-79-4: 0

CAS# 6363-53-7: Not available

Canada

CAS# 69-79-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not controlled.

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.

CAS# 69-79-4 is not listed on Canada's Ingredient Disclosure List.

CAS# 6363-53-7 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 69-79-4 is listed on the TSCA Inventory.

CAS# 6363-53-7 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 7/14/1999

Revision #7 Date 7/20/2009

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 the company 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 the company has been advised of the possibility of such damages.

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