



For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Mannose (D)

Commercial Name Mannose, D-Mannose, D(+)Mannose; Carubinose

Product Use Laboratory chemicals.

Restrictions On Use Not available

Product Code 30-2977

Company PCCA In ca

9901 South Wilcrest Houston, TX 77099 Phone: 1-800-331-2498 Fax: 1-800-874-5760 In case of emergency contact: CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com:

Not available.

CFR 1910.1200

Signal Word NON-HAZARDOUS

Hazard Statement(s) Not available

Pictogram(s) or Symbol(s)

Precautionary Statement(s):

PreventionNot availableResponseNot availableStorageNot availableDisposalNot available

Section 3: Composition/Information on Ingredients

Substance/Mixture

onents {D-}Mannose

Components

100

% By Weight

100

CAS#

3458-28-4

Substance

Molecular Weight Chemical Formula 180.16 g/mole C6H12O6

Synonym(s)

Not available.

Mixtures

NameCAS#% by WeightTLV/PELLC50/LD50{D-}Mannose3458-28-4100Not available.Not available.

(Revision Date 3/23) Page 1 of 5



For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 4: First-Aid Measures

InhalationRemove to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration.Skin ContactWash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.Eye ContactRinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention

if symptoms occur.

Ingestion Do NOT induce vomiting. Get medical attention if symptoms occur.

Symptoms/Effects

Acute Not available Delayed Not available

Immediate Medical Attention

Treat symptomatically

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

Carbon monoxide (CO). Carbon dioxide (CO2).

Firefighters Special Equipment and Precautions

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Environmental Precautions: Avoid release to the environment. Methods for Containment and Clean Up: Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

Section 7: Handling and Storage

Handling: Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes or clothing. Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

Section 8: Exposure Controls/Personal Protection

Exposure Limits
Engineering Controls
Personal Protection

Not available. Not available.

Eye Protection: 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. Hand Protection: Protective gloves Respiratory Protection: No protective equipment is needed under normal use conditions. Recommended Filter type: Particle filter Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

(Revision Date 3/23) Page 2 of 5



For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 9: Physical and Chemical Properties

Appearance Solid. (Solid crystalline powder.) Color: White

Odor Odorless.
Odor Threshold Not available

Not available **Melting Point** 133 - 130.00 °C / 271.4 - 266 pН Freezing Point Not available **Vapor Pressure** Not applicable. **Boiling Point/Range** Not available. **Vapor Density** Not available. **Decomposition temperature** Not available **Viscosity** Not available.

Partition Coefficient:

n-octanol/water

Flammability

Not available

Evaporation Rate

Not available

Flash Point Not available.

Autoignition temperature

Not available

Not available

Flammability or Explosive Limits:

Lower Not available

Upper Not available

Solubility(ies) Not available.

Other Not available.

Section 10: Stability and Reactivity

ReactivityNone under normal processing.
Chemical Stability
Stable under normal conditions.

Hazardous Polymerization Will not occur

Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2)

Section 11: Toxicological Information

RTECS Not available.

Acute Toxicity

Component: D- Mannose LD50 Oral: Not listed LD50 Dermal: LD50 > 5000 mg/kg (Rat) LC50 Inhalation: Not listed

Skin Corrosion/Irritation

Not available

Serious Eye Damage/Irritation

Not available

Respiratory or Skin Sensitization

Not available

Germ Cell Mutagenicity

Not listed

Carcinogenicity

Not listed

Reproductive Toxicity

Not listed

Routes of Entry

Inhalation.

Symptoms Related to Exposure

Irritation

(Revision Date 3/23) Page 3 of 5



For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Potential Health Effects

No adverse effects to skin or eyes. Ingestion:Large doses may cause gastrointesinal upset

Target Organ(s) Not available

Section 12: Ecological Information

Ecotoxicity

Do not empty into drains.

Persistance and Degradability

Soluble in water Persistence is unlikely based on information available.

Bioaccumulative Potential

Not available

Mobility in Soil

Will likely be mobile in the environment due to its water solubility

Other Adverse Effects

Not available

Section 13: Disposal Considerations

Waste Disposal

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Disposal of Container

Not available

Other Considerations

Not available

Section 14: Transport Information

DOT Classification

DOT Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information

Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are: NONE Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE;Pensylvania Right-To-Know, Hazardous substance List, Hazardous Substances and Special hazardous Substances on the list must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Massachusetts Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: NONE Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: NONE

Other

WHMIS CLASS D-2A: Material causing other toxic (Canada) effects (VERY TOXIC).;DSCL (EEC) This product is not classified according to the EU regulations.;Gloves.;Lab coat.;Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.;Safety glasses.

(Revision Date 3/23) Page 4 of 5



For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 16: Other Information

Disclaimer The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

(Revision Date 3/23) Page 5 of 5