



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

# MATERIAL SAFETY DATA SHEETS

## SECTION I

### PRODUCT AND COMPANY IDENTIFICATION

**Product: Sucrose**

**This MSDS is valid for all grades and catalog #'s**

Synonyms: beta-D-Fructofuranosyl-alpha-D-gluopyranoside; alpha-D-Glucopyranosyl beta-D-Fructofuranoside; alpha-D-Glucopyranoside, beta-D-Fructofuranosyl

Formula: C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

Manufacturer: PHARMCO-AAPER  
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CHEMTREC 1-800-424-9300

## SECTION II

### COMPOSITION /INFORMATION ON INGREDIENTS

% by weight	Material	CAS #	TLV/PEL	LC50/LD50
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100	Sucrose	57-50-1	TWA: 15 (mg/m <sup>3</sup> ) from OSHA (PEL) [United States] Inhalation Total. TWA: 10 (mg/m <sup>3</sup> ) from ACGIH (TLV) [United States] [1999] Inhalation Total. TWA 10 (mg/m <sup>3</sup> ) from NIOSH Inhalation Total. TWA: 5 (mg/m <sup>3</sup> ) from NIOSH Inhalation Respirable. TWA: 5 (mg/m <sup>3</sup> ) from OSHA (PEL) [United States] Inhalation Respirable.	ORAL (LD50): Acute: 29700 mg/kg [Rat]
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## SECTION III

### HAZARDS IDENTIFICATION

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH.

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

## SECTION IV

### FIRST AID

Obtain medical attention for all cases of over-exposure.

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Hazardous Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Hazardous Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Hazardous Ingestion:** Not available.

## SECTION V

### FIRE FIGHTING MEASURES

**Fire:**

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

Auto-Ignition temperature: Not available.

Flash point: CLOSED CUP: Higher than 93.3°C (200°F).

Flammable limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO<sub>2</sub>).

**Fire Hazards:** Slightly flammable to flammable in presence of heat.

**Explosion Hazards:** 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.

**Fire Extinguishing Media:** SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Information:** As with most organic solids, fire is possible at elevated temperatures. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

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#### SECTION VI

##### SPILL/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 authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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#### SECTION VII

##### 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. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

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

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#### SECTION VIII

##### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. A dust respiratory is not normally necessary unless ventilation is inadequate and handling of materials produces visible dust clouds. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. 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:** TWA: 15 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Total. TWA: 10 (mg/m<sup>3</sup>) from

ACGIH (TLV) [United States] Inhalation Total. TWA: 10 (mg/m<sup>3</sup>) from NIOSH [United States] Inhalation Total. TWA: 5 (mg/m<sup>3</sup>) from NIOSH [United States] Inhalation Respirable. TWA: 5 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Respirable. TWA: 10 STEL: 20 (mg/m<sup>3</sup>) [United Kingdom (UK)] Inhalation Total. TWA: 10 (mg/m<sup>3</sup>) [Canada] Inhalation Total. TWA: 5 (mg/m<sup>3</sup>) [Canada] Inhalation Respirable. Consult local authorities for acceptable exposure limits.

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#### SECTION IX

##### PHYSICAL AND CHEMICAL PROPERTIES

**Physical State/Appearance:** Solid. (Crystalline granules solid.)

**Molecular Weight:** 342.3 g/mole

**Odor:** Characteristic Carmel to odorless

**Taste:** Sweet.

**Color:** White.

**pH (1% Solution in Water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** 186°C (366.8°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 1.587 (Water = 1)

**Vapor Pressure (mm Hg):** Not applicable.

**Vapor Density (Air=1):** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Water/Oil Dist. Coefficient:** The product is more soluble in water; log(oil/water) = -3.7

**Ionicity (in water):** Not available.

**Dispersion Properties:** See solubility in water, methanol.

**Solubility:** Easily soluble in cold water, hot water. Partially soluble in methanol. Insoluble in diethyl ether.

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#### SECTION X

##### STABILITY/REACTIVITY INFORMATION

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, incompatible materials, dust generation

**Incompatibilities:** Reactive with oxidizing agents, acids.

**Corrosivity:** Not available

**Special Information:** Reactive with sulfuric acid, nitric acid, and oxidizers.

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#### SECTION XI

##### TOXICOLOGICAL INFORMATION

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 29700 mg/kg [Rat].

**Chronic Effects on Humans:** CARCINOGENIC

EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

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

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**Special Information on Toxicity to Animals:** Not available.

**Special Information on Chronic Effects/Toxicity on**

**Humans:** May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. No adverse reproductive effects have been found in humans. However at extremely high oral doses of 683,000 mg/kg given to rats during pregnancy showed some effects on newborn (growth, developmental anomalies of central nervous system). May affect genetic material (mutagenic). This is based on mutation studies with microorganisms (yeast and bacteria) and cytogenic analysis studies with hamster lung and ovary cells. Acute Potential Health Effects: Not expected to be a health hazard. It is not expected to produce any significant toxicity with reasonably anticipated workplace exposure. Skin: May cause skin irritation by mechanical action. No adverse effects. Eyes: Dust may cause eye irritation by mechanical action. No adverse effects. Inhalation: Nuisance dust. Excessive inhalation may cause minor respiratory irritation and coughing from mechanical action. Ingestion: Expected low hazard. Ingestion of large/excessive amounts may cause gastrointestinal tract irritation/disturbances with colic, hypermotility and diarrhea. In experimental animals, extremely high doses have been shown to cause anorexia, nephrotoxicity, hepatotoxicity, myocarditis, congestive encephalitis, adrenal hypertrophy, hypothermia, central nervous system depression, seizures, and cyanosis. Such effects are generally seen at the gram/killogram doses and have not been reported in exposed humans. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact has been associated with dermatitis in bakers, candy makers, and workers in related occupations.

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**SECTION XII**

**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 product itself and its products of degradation are not toxic.

**Special Information on Products of Biodegradation:** Not available.

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**SECTION XIII**

**DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Recycle to process, if possible. Consult your local or regional authorities.

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**SECTION XIV**

**TRANSPORTATION INFORMATION**

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

**UN:** Not applicable.

**Special Provisions for Transport:** Not applicable.

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**SECTION XV**

**REGULATORY INFORMATION**

**Federal and State 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**

Pennsylvania 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**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: **No products were found.**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: **No products were found.**

**Other Classifications:**

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations.

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

**References:** Not available.

**Other Special Considerations:** Not available.

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The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.