



## MATERIAL SAFETY DATA SHEET

### Dextrose, Anhydrous

#### 1. Product Identification

**Synonyms:** D-Glucose

**CAS No.:** 50-99-7

**Molecular Weight:** 180.20

**Chemical Formula:** C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>

**Product Codes:** D102

#### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Dextrose Anhydrous	50-99-7	100	No

#### 3. Hazards Identification

##### **EMERGENCY OVERVIEW**

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Health Rating: 0 - None

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 0 - None

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Green (General Storage)

##### **Potential Acute Health Effects:**

Slightly hazardous in case of eye contact (irritant), of ingestion, of inhalation.

##### ***Eye:***

May cause eye irritation.

##### ***Skin:***

May cause skin irritation. Low hazard for usual industrial handling.

##### ***Ingestion:***

No hazard expected in normal industrial use. May cause irritation of the digestive tract.

##### ***Inhalation:***

No hazard expected in normal industrial use. May cause respiratory tract irritation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

**4. First Aid Measures****Inhalation:**

Allow the victim to rest in a well ventilated area. Seek immediate medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Skin Contact:**

Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water. No known effect on skin contact, rinse with water for a few minutes.

**Serious Skin Contact:**

Not available.

**Eye Contact:**

Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

**5. Fire Fighting Measures****Fire:**

May be combustible at high temperature. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Fire Extinguishing Media:**

Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Products of Combustion:**

These products are carbon oxides (CO, CO<sub>2</sub>).

**Explosion Hazards in Presence of Various Substances:**

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 Fighting Media and Instructions:**

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

**6. 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.

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation

**7. Handling and Storage****Precautions:**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label.

**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 ingestion and inhalation.

**Storage:**

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

**8. 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.

**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 Protection:**

Safety glasses. Lab coat.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Personal Respirators:**

A respiratory protection program must be followed whenever workplace conditions warrant respirator use.

**Clothing:**

Protective garments not normally required.

**Skin Protection:**

Protective garments not normally required.

**Eye Protection:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations.

**9. Physical and Chemical Properties****Appearance:**

Solid.

**Color:**

White

**Odor:**

Odorless

**Solubility:**

Easily soluble in cold water

**Specific Gravity:**

1.562 (Water = 1)

**pH:**

5.9 (0.5M).

**% Volatiles by volume @ 21C (70F):**

Not available.

**Boiling Point:**

Decomposes

**Melting Point:**

146°C (294.98°F)

**Vapor Density (Air=1):**

Not available.

**Vapor Pressure (mm Hg):**

Negligible.

**Molecular Weight:**

180.20

**10. Stability and Reactivity****Stability:**

The product is stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, dust generation, excess heat

**Incompatibilities with Other Materials**

Not available.

**Hazardous Decomposition**

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Corrosivity:**

Non-corrosive in presence of glass

**Hazardous Polymerization:**

No.

## 11. **Toxicological Information**

### **Routes of Entry:**

Not available.

### **Toxicity to Animals:**

Acute oral toxicity (LD<sub>50</sub>): 25800 mg/kg [Rat].

### **Chronic Effects on Humans:**

Not available.

### **Other Toxic Effects on Humans:**

Slightly hazardous in case of ingestion, of inhalation.

### **Special Remarks on Chronic Effects on Humans:**

Passes through the placental barrier in human.

## 12. **Ecological Information**

### **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 products of degradation are more toxic.

## 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.

## 14. **Transport Information**

### **DOT Classification:**

Not a DOT controlled material.

### **Identification:**

Not applicable.

### **Special Provisions for Transport:**

Not applicable

## 15. **Other Information**

**NFPA Ratings:** Health: **1** Flammability: **1** Reactivity: **0**

### **Label Hazard Warning:**

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

**Label Precautions:**

None.

**Label First Aid:**

Not applicable.

**Product Use:**

Laboratory Reagent.

**Protective Equipment:**

Not applicable. Lab coat. Not applicable. Safety glasses.

**Revision Information:**

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