

# Safety Data Sheet

## D-glucose, Monohydrate

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** D-glucose, Monohydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Dextrose Monohydrate, D(+)-Glucose, Grape Sugar  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

## WARNING

May form combustible dust concentrations in air

**GHS Classification:**  
Combustible Dust Category 1

### Section 3

### Composition / Information on Ingredients

| <u>Chemical Name</u>   | <u>CAS #</u> | <u>%</u> |
|------------------------|--------------|----------|
| D-glucose, Monohydrate | 14431-43-7   | 100      |

### Section 4

### First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### Section 5

### Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Avoid Dusting. May become explosive when dispersed in air.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6

### Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** No adverse health affects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS.  
**Methods for Clean-up:** No special spill clean-up considerations. Collect and discard in regular trash. Avoid Dusting. May become explosive when dispersed in air.

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## Section 7

## Handling and Storage

**Handling:** Do not ingest or take internally. Do not breathe dust.  
**Storage:** Keep container tightly closed in a cool, well-ventilated place.  
**Storage Code:** Green - general chemical storage

## Section 8

## Protection Information

| <u>Chemical Name</u>   | <u>ACGIH</u> | <u>OSHA PEL</u> |       |        |
|------------------------|--------------|-----------------|-------|--------|
|                        | (TWA)        | (STEL)          | (TWA) | (STEL) |
| D-glucose, Monohydrate | N/A          | N/A             | N/A   | N/A    |

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use.

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** No information available

## Section 9

## Physical Data

|                                                                                 |                                                      |
|---------------------------------------------------------------------------------|------------------------------------------------------|
| <b>Formula:</b> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> *H <sub>2</sub> O | <b>Vapor Pressure:</b> No data available             |
| <b>Molecular Weight:</b> 198.17                                                 | <b>Evaporation Rate (BuAc=1):</b> No data available  |
| <b>Appearance:</b> Colorless to White Crystalline Solid                         | <b>Vapor Density (Air=1):</b> No data available      |
| <b>Odor:</b> Mild Sweet                                                         | <b>Specific Gravity:</b> 1.54                        |
| <b>Odor Threshold:</b> No data available                                        | <b>Solubility in Water:</b> Soluble                  |
| <b>pH:</b> No data available                                                    | <b>Log Pow (calculated):</b> -3.24                   |
| <b>Melting Point:</b> 83 C                                                      | <b>Autoignition Temperature:</b> No data available   |
| <b>Boiling Point:</b> No data available                                         | <b>Decomposition Temperature:</b> No data available  |
| <b>Flash Point:</b> No data available                                           | <b>Viscosity:</b> No data available                  |
| <b>Flammable Limits in Air:</b> No data available                               | <b>Percent Volatile by Volume:</b> No data available |

## Section 10

## Reactivity Data

**Reactivity:** Not generally reactive under normal conditions.

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Dusting.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Polymerization:** Will not occur

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## Section 11

## Toxicity Data

**Routes of Entry:** No data available  
**Symptoms (Acute):** No data available  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name          | CAS Number | Oral LD50                    | Dermal LD50    | Inhalation LC50 |
|------------------------|------------|------------------------------|----------------|-----------------|
| D-glucose, Monohydrate | 14431-43-7 | Oral LD50 Rat<br>25800 mg/kg | Not determined | Not determined  |

### Carcinogenicity:

| Chemical Name          | CAS Number | IARC       | NTP        | OSHA       |
|------------------------|------------|------------|------------|------------|
| D-glucose, Monohydrate | 14431-43-7 | Not listed | Not listed | Not listed |

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** No data available  
**Chronic:** No data available

## Section 12

## Ecological Data

**Overview:** This material is not expected to be harmful to the ecology.  
**Mobility:** This material is expected to have very high mobility in soil. It does not absorb to most soil types.  
**Persistence:** Biodegradation  
**Bioaccumulation:** No data  
**Degradability:** Biodegrades quickly.  
**Other Adverse Effects:** No data

| Chemical Name          | CAS Number | Eco Toxicity |
|------------------------|------------|--------------|
| D-glucose, Monohydrate | 14431-43-7 |              |

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

## Section 14

## Transport Information

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Ground - DOT Proper Shipping Name:</b><br>Not regulated for transport by US DOT. | <b>Air - IATA Proper Shipping Name:</b><br>Not regulated for air transport by IATA. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

# Safety Data Sheet

## Section 15

## Regulatory Information

**TSCA Status:**

A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

| Chemical Name          | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) TQ |
|------------------------|------------|------------|----------|-----------|-----------|---------------|
| D-glucose, Monohydrate | 14431-43-7 | No         | No       | No        | No        | No            |

**California Prop 65:**

No California Proposition 65 ingredients

## Section 16

## Additional Information

Revised: 06/10/2024

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

|        |                                                                       |      |                                               |
|--------|-----------------------------------------------------------------------|------|-----------------------------------------------|
| ACGIH  | American Conference of Governmental Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                     | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                           | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available                                                         | SARA | Superfund Amendments and Reauthorization Act  |
|        |                                                                       | TLV  | Threshold Limit Value                         |
|        |                                                                       | TSCA | Toxic Substances Control Act                  |
|        |                                                                       | IDLH | Immediately dangerous to life and health      |