

# 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. No special spill clean-up considerations. Collect and discard in regular trash. Avoid Dusting. May become explosive when dispersed in air.

### Section 7 Handling and Storage

# Safety Data Sheet

**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>(TWA)</u>	<u>ACGIH</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>OSHA PEL</u>	<u>(STEL)</u>
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

## Section 11 Toxicity Data

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

### Acute Toxicity:

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

### Carcinogenicity:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
D-glucose, Monohydrate	14431-43-7	Not listed	Not listed	Not listed

### Chronic Effects:

D-glucose, Monohydrate

# Safety Data Sheet

**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

Ground - DOT Proper Shipping Name:	Air - IATA Proper Shipping Name:
Not regulated for transport by US DOT.	Not regulated for air transport by IATA.

## 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

## Section 16 Additional Information

Revised: 09/09/2015

Replaces: 09/03/2014

Printed: 10-29-2015

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