

Safety Data Sheet

15% Glucose 1% Starch Solution

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: 15% Glucose 1% Starch Solution
Recommended Use: Science education applications
Synonyms: N/A
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;

GHS Classification:

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
To the best of our knowledge, this product is non-hazardous and is not subject to the requirements of 29CFR1910.1200	7732-18-5	84
Glucose (CAS# 50-99-7) 15%	50-99-7	15
Starch (CAS# 118550-61-1) 1%	9005-25-8	1

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.
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: N/A
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 health affects expected from the clean-up of this material if contact can be avoided.
Follow personal protective equipment recommendations found in Section 8 of this (M)SDS
Avoid dusting.
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

Handling: Avoid contact with eyes.
Storage: Keep container tightly closed in a cool, well-ventilated place.

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Storage Code: Green - general chemical storage

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
D-glucose, Anhydrous	N/A	N/A	N/A	N/A
Starch	10 mg/m3 TWA	N/A	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	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:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. 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

Formula: See Section 3

Molecular Weight: N/A

Appearance: Colorless to White Liquid

Odor: Mild Sweet

Odor Threshold: No data available

pH: No data available

Melting Point: 146 C

Boiling Point: 100 C

Flash Point: No data available

Flammable Limits in Air: N/A

Vapor Pressure: N/A

Evaporation Rate (BuAc=1): Approx. 1

Vapor Density (Air=1): N/A

Specific Gravity: Approx. 1

Solubility in Water: Soluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

Percent Volatile by Volume: 97%

Section 10 Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Dusting.

Incompatible Materials:

Water-reactive materials, Strong oxidizing agents

Hazardous Polymerization:

Will not occur

Section 11 Toxicity Data

Routes of Entry

Ingestion.

Symptoms (Acute):

N/A

Delayed Effects:

No data available

Acute Toxicity:

Chemical Name

CAS Number

Oral LD50

Dermal LD50

Inhalation LC50

Water

7732-18-5

Oral LD50 Rat

D-glucose, Anhydrous

50-99-7

90000 mg/kg

Starch

9005-25-8

Oral LD50 Rat

25800 mg/kg

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Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
D-glucose, Anhydrous	50-99-7	Not listed	Not listed	Not listed
Starch	9005-25-8	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:	See Section 2
Chronic:	Mutation data cited., Reproductive data cited., Tumorigenic data cited., Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12

Ecological Data

Overview:	This material is not expected to be harmful to the ecology.
Mobility:	No data
Persistence:	Biodegradation
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
D-glucose, Anhydrous	50-99-7	
Starch	9005-25-8	Not available

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: N/A	Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.
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Section 15

Regulatory Information

TSCA Status:	All components in this product are on the TSCA Inventory.
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Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
D-glucose, Anhydrous	50-99-7	No	No	No	No	No
Starch	9005-25-8	No	No	No	No	No

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Additional Information

Revised: 03/27/2015	Replaces: 09/08/2014	Printed: 04-21-2015
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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

Safety Data Sheet

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