

# Safety Data Sheet

## Zinc Sulfate, Heptahydrate

**CAROLINA**<sup>®</sup>  
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### Section 1 Product Description

**Product Name:** Zinc Sulfate, Heptahydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Zinc Sulfate 7-Hydrate  
**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;

**DANGER**



Harmful if swallowed. Causes serious eye damage. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**GHS Classification:**

Serious Eye Damage/Eye Irritation Category 1, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Acute Toxicity - Oral Category 4

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Zinc Sulfate, 7-Hydrate	7446-20-0	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:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### 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, Zinc Oxides, Sulfur Oxides

### Section 6 Spill or Leak Procedures

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## Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Avoid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage.

## Section 7 Handling and Storage

**Handling:** Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Keep container tightly closed.

**Storage:** Suitable for any general chemical storage.

**Storage Code:** Green - general chemical storage

## Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>
No data available	(TWA) N/A (STEL) N/A	(TWA) N/A (STEL) 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. Respiratory protection may be required in addition to ventilation depending upon 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

<b>Formula:</b> ZnSO <sub>4</sub> * 7H <sub>2</sub> O	<b>Vapor Pressure:</b> N/A
<b>Molecular Weight:</b> 287.56 g/mol	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b>	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> No data available	<b>Specific Gravity:</b> 1.97
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Appreciable (>10%)
<b>pH:</b> 4.0 - 6.0 at 50 g/l at 20 °C	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> > 500 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> N/A N/A	<b>Percent Volatile by Volume:</b> 0%

## Section 10 Reactivity Data

**Reactivity:** No data available

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

**Conditions to Avoid:** None known.

**Hazardous Decomposition Products:** Sulfur Oxides, Zinc Oxides, Carbon dioxide, Carbon monoxide

**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry** Ingestion, skin and eye contact.

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**Symptoms (Acute):** None Known  
**Delayed Effects:** No data available

## Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Zinc Sulfate, 7-Hydrate	7446-20-0	Oral LD50 Rabbit 2000 mg/kg	Not determined	Not determined

## Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	7446-20-0	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:** 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:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
Zinc Sulfate, 7-Hydrate	7446-20-0	96 HR LC50 PIMEPHALES PROMELAS 0.06 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 0.23 - 0.48 MG/L 96 HR LC50 POECILIA RETICULATA 0.63 MG/L 48 HR EC50 DAPHNIA MAGNA 0.75 MG/L 72 HR EC50 CHLORELLA VULGARIS 64.8 MG/L 96 HR EC50 CHLORELLA VULGARIS 2.4 MG/L 72 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 0.056 MG/L [STATIC]

## 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:
UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Zinc sulfate heptahydrate) Reportable Quantity (RQ): 1000 lbs Marine pollutant: Poison Inhalation Hazard: No	UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Zinc sulfate heptahydrate)

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Zinc Sulfate, 7-Hydrate	7446-20-0	No	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	No	No

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## Section 16

## Additional Information

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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