

# Safety Data Sheet

## Sodium Sulfide, 9-Hydrate

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

**Product Name:** Sodium Sulfide, 9-Hydrate  
**Recommended Use:** Science education applications  
**Synonyms:** Sodium Monosulfide  
**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**



Toxic if swallowed or in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**GHS Classification:**

Skin Corrosion/Irritation Category 1B, 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 - Dermal Category 3, Acute Toxicity - Oral Category 3

<b>Acute Toxicity Inhalation Gas Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity
<b>Acute Toxicity Inhalation Vapor Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity
<b>Acute Toxicity Inhalation Dust/Mist Contains</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Sodium Sulfide, 9-Hydrate	1313-84-4	100

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5 Firefighting Procedures

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<b>Extinguishing Media:</b>	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
<b>Fire Fighting Methods and Protection:</b>	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
<b>Fire and/or Explosion Hazards:</b>	Fire or excessive heat may produce hazardous decomposition products. None Known
<b>Hazardous Combustion Products:</b>	Sodium Oxides, Sulfur Oxides

## Section 6 Spill or Leak Procedures

<b>Steps to Take in Case Material Is Released or Spilled:</b>	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. Isolate area. Keep unnecessary personnel away. Avoid the generation of dusts during clean-up. Avoid contact with material. Avoid creating and inhaling dust. Avoid contact with skin and eyes. Ventilate the area by opening door and/or turning on fans and blowers. Reduce airborne dust and prevent scattering by moistening with water Vacuum or sweep up material and place in a disposal container Avoid runoff into storm sewers and ditches that lead to waterways. Collect spillage.
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## Section 7 Handling and Storage

<b>Handling:</b>	Do not breathe dust/fume/gas/mist/vapors/spray. 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 in a cool, well-ventilated place. Keep at temperature not exceeding ... OC (to be specified by the manufacturer). Keep away from oxidizing materials and strong acids.
<b>Storage:</b>	Store locked up. Keep container tightly closed in a cool, well-ventilated place.
<b>Storage Code:</b>	White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

## 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>
No data available	N/A	N/A	N/A	N/A

### Control Parameters

<b>Engineering Measures:</b>	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. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use.
<b>Respirator Type(s):</b>	NIOSH approved air purifying respirator with dust/mist filter.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	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.
<b>Gloves:</b>	Nitrile

## Section 9 Physical Data

<b>Formula:</b> Na <sub>2</sub> S · 9H <sub>2</sub> O	<b>Vapor Pressure:</b> N/A
<b>Molecular Weight:</b> 240.18	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Colorless Crystals	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> No data available Rotten-Egg Odor	<b>Specific Gravity:</b> 1.43 @ 16 °C

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**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** 50 C  
**Boiling Point:** No data available  
**Flash Point:** No data available  
**Flammable Limits in Air:** N/A

**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:** N/A

## Section 10

## Reactivity Data

**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Contact with incompatible materials may liberate highly toxic gas. Contact with water  
**Incompatible Materials:** Acids, Aluminum alloys, Copper, Strong oxidizing agents, Zinc  
**Hazardous Decomposition Products:** Sulfur Oxides, Sodium Oxides  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** Respiratory disorders, , Eye disorders, Cardiovascular system, Gastrointestinal,  
**Delayed Effects:** No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Sulfide, 9-Hydrate	1313-84-4	Oral LD50 Mouse 205 mg/kg Oral LD50 Rat 208 mg/kg	Not determined	Not determined

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	1313-84-4	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:** Severe ecological hazard. This product may be toxic to plants and/or wildlife. Keep out of waterways.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
N/A	1313-84-4	

## 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:**

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UN1849, Sodium Sulfide, Hydrated, 8, II

UN number: 1849 Class: 8 Packing group: II Proper shipping name: Sodium sulphide, hydrated 15. REGULATORY

## 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
No data available	1313-84-4	No	No	No	No	No

## 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