

## Sodium Hydrogen Sulfide (hydrate): sc-222322



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name:** Sodium Hydrogen Sulfide (hydrate)  
**Catalog Number:** sc-222322  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800  
**Synonyms:** sodium sulfide, hydrate; NSC 158264; Sodium Hydrosulfide;

**Emergency:**  
ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

## 2. Hazards Identification

<b>Emergency Overview:</b>	Corrosive. Harmful. Avoid contact and inhalation. Contact with acids liberates toxic gas.
<b>Route(s) of Entry:</b>	Inhalation? Yes   Skin? Yes   Eyes? Yes   Ingestion? Yes   Other: Injection
<b>Health Hazards (Acute and Chronic):</b>	Causes burns. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been fully evaluated.
<b>Signs and Symptoms Of Exposure:</b>	Burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Eye contact may result in severe tissue burns and possible loss of sight. Inhalation may result in spasm, inflammation, and edema of the larynx and bronchi, pneumonitis, and pulmonary edema.

### 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#
1. Sodium hydrosulfide hydrate	207683-19-0	100.0 %	240-778-0

## 4. First Aid Measures

<b>Emergency and First Aid Procedures:</b>	<p>If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.</p> <p>If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.</p> <p>In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.</p> <p>In case of skin contact, immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.</p>
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## 5. Fire Fighting Measures

<b>Flash Pt:</b>	No data.	
<b>Explosive Limits:</b>	LEL: No data.	UEL: No data.
<b>Special Fire Fighting Procedures:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.	
<b>Unusual Fire and Explosion Hazards:</b>	Emits toxic fumes under fire conditions.	
<b>Hazardous Combustion Products:</b>	No data available.	
<b>Suitable Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.	

**Unsuitable Extinguishing Media:**

A solid water stream may be inefficient.

## 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:**

Avoid release into the environment.  
 Avoid raising and breathing dust, and provide adequate ventilation.  
 As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  
 Transfer to a proper chemical waste container for disposal.

## 7. Handling and Storage

**Hazard Label Information:**

Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
 Wash thoroughly after handling

**Precautions To Be Taken in Handling:**

Avoid breathing (dust, vapor, mist, gas).  
 Avoid prolonged or repeated exposure.

**Precautions To Be Taken in Storing:**

Keep tightly closed.  
 Protect from sunlight.  
 Store at room temperature.  
 Store away from acids.  
 Store in well-ventilated place.

**Other Precautions:**

Hygroscopic.

## 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Sodium hydrosulfide hydrate	207683-19-0	No data.	No data.	No data.

**Protective Equipment Summary - Hazard Label Information:**

Compatible chemical-resistant gloves  
 Eye wash station in work area  
 glasses Safety shower in work area Vent Hood

**Respiratory Equipment (Specify Type):**

NIOSH approved respirator, as conditions warrant.

**Eye Protection:**

Safety glasses

**Protective Gloves:**

Compatible chemical-resistant gloves

**Other Protective Clothing:**

Lab coat

**Ventilation:**

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices:**

Do not take internally.  
 Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
 Wash thoroughly after handling.

## 9. Physical and Chemical Properties

**Physical States:**

[ ] Gas      [ ] Liquid      [ X ] Solid

**Melting Point:**

53.00 C - 56.00 C

**Boiling Point:**

No data.

**Autoignition Pt:**

No data.

**Flash Pt:**

No data.

**Explosive Limits:**

LEL: No data.      UEL: No data.

**Specific Gravity (Water = 1):**

No data.

**Bulk density:**

No data.

**Vapor Pressure (vs. Air or mm Hg):**

No data.

**Vapor Density (vs. Air = 1):**

No data.

**Evaporation Rate (vs Butyl Acetate=1):**

No data.

**Solubility in Water:**

No data.

**Solubility Notes:**

~10 mg/ml in PBS (pH 7.2); ~3 mg/ml in EtOH, DMF & DMSO;

**Percent Volatile:**

No data.

**Heat Value:**

No data.

**Particle Size:**

No data.

**Corrosion Rate:**

No data.

**Formula:** HNaS · XH2O  
**Molecular Weight:** 56.10  
**pH:** No data.  
**Appearance and Odor:** A crystalline solid. Stench!

## 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** sunlight, heat, moisture, and air  
**Incompatibility - Materials To Avoid:** acids  
aluminium  
copper  
copper alloys  
strong oxidizing agents  
zinc  
**Hazardous Decomposition Or Byproducts:** nitrogen oxides  
sulfur oxides  
**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Reactions:** No data available.

## 11. Toxicological Information

: The toxicological effects of this product have not been thoroughly studied.  
**Carcinogenicity/Other Information:** No data available.  
**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

## 12. Ecological Information

: Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.

## 13. Disposal Considerations

**Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

## 14. Transport Information

### LAND TRANSPORT (US DOT)

**DOT Proper Shipping Name** Sodium hydrosulphide hydrated  
**DOT Hazard Class:** 8  
**DOT Hazard Label:** CORROSIVE  
**UN/NA Number:** 2949  
**Packing Group:** II

### LAND TRANSPORT (European ADR/RID)

**ADR/RID Proper Shipping Name** Sodium hydrosulphide hydrated  
**UN Number:** 2949  
**Packing Group:** II

### AIR TRANSPORT (ICAO/IATA)

**ICAO/IATA Proper Shipping Name** Sodium hydrosulphide hydrated  
**UN Number:** 2949  
**Packing Group:** II  
**IATA Classification:** 8

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

## 15. Regulatory Information

**European Community Hazard Symbol codes** C: Corrosive; Xn: Harmful

### European Community Risk and Safety Phrases

R31 - Contact with acids liberates toxic gas.  
R34 - Causes burns.  
S25 - Avoid contact with eyes.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Sodium hydrosulfide hydrate	207683-19-0	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	HPV/LPV
1. Sodium hydrosulfide hydrate	207683-19-0	HAP, ODC ()	No	No	

**16. Other Information**

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

8/1/2011