



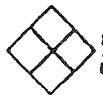
MATERIAL SAFETY DATA SHEET

8944 Beckett Rd.
West Chester, OH 45069
(513) 860-4949
Fax (513) 682-8181

MSDS No. SS 845
Effective Date March 14, 1997

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	SODIUM SULFIDE, NONAHYDRATE
Chemical Synonyms	Sodium Mono Sulfide, Nonahydrate
Formula	Na ₂ S·9H ₂ O
Unit Size	up to 2.5 Kg.
C.A.S. No.	1313-84-4



CHEMTREC
800-424-9300
Day 716-226-8177

Health	2			
Fire	2			
Reactivity	1			
HMIS				
LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sodium Sulfide, Nonahydrate	98.0-103.0%	None established.

WARNING! CORROSIVE! HARMFUL IF INHALED OR SWALLOWED.

CAUSES BURNS TO SKIN, EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (*F)	50°C (122°F)	Specific Gravity (H ₂ O = 1)	1.427 at 20°C
Boiling Point (*F)	920°C (1688°F) decomposes.	Percent Volume by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (1)	N/A
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	18 grams in 100 mL. water.		
Appearance & Odor	Colorless to slightly yellow, then to brownish black, deliquescent crystals, flakes; hydrogen sulfide odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	NA	Lower	Upper
---------------------------	----------------	-------------------------------------	----	-------	-------

Extinguisher Media Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES

If involved in fire situation, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

(1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.6, GUIDE PAGE NO. 60)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Sodium Sulfide Nonahydrate is a corrosive and not a flammable material. Under fire conditions, Sodium Sulfide will become anhydrous yielding a flammable solid. In fire conditions, can yield very toxic gas of hydrogen sulfide. The anhydrous material is unstable. May explode upon percussion or rapid heating.

SECTION V HEALTH HAZARD DATA

Threshold Limited Value

None established (ACGIH 1992-93).

Effects of Overexposure

INGESTION: Can be rapidly fatal if small amounts are ingested - 1 teaspoon or less. Extremely destructive to the tissue of the upper respiratory tract and mucous membranes, eyes and skin. **INHALATION:** Inhalation of hydrogen sulfide gas can be fatal. Causes shortness of breath, nausea, vomiting, dizziness, unconsciousness and death from respiratory paralysis.

Emergency and First Aid Procedures

INGESTION: If swallowed, do NOT induce vomiting. If conscious, give one or two glasses of water to drink and get immediate medical attention. Never give anything by mouth to an unconscious person. **SKIN:** Flush with mild soap and water. **EYES:** Flush with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get immediate medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Excessive heat and temperature above 300°C.
	Stable		

Incompatibility (Materials to Avoid) Strong acids, strong oxidizers. Contact with almost any acid will produce hydrogen sulfide gas, which is flammable, explosive and toxic.

Hazardous Decomposition Products Thermal decomposition yields oxides of sulfur (SO_x) and hydrogen sulfide gas, a poisonous gas.

Hazardous Polymerization	Conditions to Avoid		Not applicable.
	May Occur	Will Not Occur	
		X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Ventilate area. Avoid raising dust. Spilled material is usually recoverable. Sweep or scoop up and remove. Ventilate area, avoid raising dust, flush spill area with water when pick-up is complete.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) Work in ventilation hood or wear a NIOSH/MSHA-approved air respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	Adequate to maintain below exposure limit.

Protective Gloves Rubber. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Lab coat, dust mask, proper ventilation, safety showers, eye wash station, proper gloves, goggles.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Storage: Light sensitive, deliquescent. Keep container tightly closed when not in use. Wash thoroughly after handling. Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Avoid contact with skin, eyes and mucous membranes. Use with adequate ventilation. Do not inhale or ingest. Do not store in zinc, aluminum or copper containers. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 4 Date 3/14/97 Approved Michael Raszeja Chemical Safety Coordinator MR

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

D.O.T. SODIUM SULFIDE, HYDRATED, 8, UN 1849, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20