

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Sodium sulfide nonahydrate
CAS #: 1313-84-4
FORMULA: Na₂S.9H₂O
SYNONYM: Sodium monosulfide hydrate

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	1313-84-4	100	no data	no data

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: May form highly toxic and flammable hydrogen sulfide gas on exposure to acids, stomach fluids, or to the atmosphere. Material is caustic and may cause severe irritation.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation, skin and eyes

EYE CONTACT: Dust causes burns to the eyes.

SKIN CONTACT: Contact with skin will produce serious caustic burns with painful inflammation and possible destruction of tissue

INHALATION: Inhalation of dust will lead to caustic burns to the respiratory tract. Hydrogen sulfide gas, if formed, is poisonous.

INGESTION: Strong toxic base that can cause severe burns of mucous membranes and release of toxic hydrogen sulfide.

CHRONIC HEALTH EFFECTS: No information available on long-term chronic effects.

ACUTE HEALTH EFFECTS: Causes caustic burns to skin, eyes, and mucous membranes. Hydrogen sulfide gas may cause painful conjunctivitis, headache, nausea, dizziness, pulmonary edema and possible death.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if

conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: no data

EXPLOSION LIMITS: no data

EXTINGUISHING MEDIUM: carbon dioxide or dry powder

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit irritating fumes of hydrogen sulfide and sulfur dioxide.

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: This material may release toxic fumes of hydrogen sulfide. In case of a spill cover the material with vermiculite or sodium carbonate. Sweep up solid and transfer to a fume hood. Seal mixture in a vented metal can and dispose of properly.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container. Exposure to the atmosphere may lead to release of toxic hydrogen sulfide gas. Empty containers may retain product residues that evolve toxic gases.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemical substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: white xtl.

MOLECULAR WEIGHT: 78.04 (240.18)

MELTING POINT (DEG. C.): no data

BOILING POINT: no data

VAPOR PRESSURE: no data

SPECIFIC GRAVITY: no data

SOLUBILITY IN WATER: 15.4g/100cc (10°C)

SECTION 10 Stability and Reactivity

STABILITY: air and moisture sensitive solid

HAZARDOUS POLYMERIZATION: no hazardous polymerization

CONDITIONS TO AVOID: contact with air, water, and mineral acids. Reaction with mineral acids can lead to formation of toxic fumes of hydrogen sulfide.

INCOMPATIBILITY: Oxidizing agents, mineral acids, halogens and carbon

DECOMPOSITION PRODUCTS: sulfur dioxide and sodium hydroxide.

SECTION 11 Toxicological Information

RTECS DATA: Intraperitoneal (mouse); LD50: 53 mg/kg.

MUTAGENIC EFFECTS: no data

TETRAOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Sodium Sulfide, hydrated, Class 8, UN 1849, PG II

SECTION 15 Regulatory Information

TSCA: Not listed in the TSCA inventory

SARA (TITLE 313): Title compound not listed

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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