

# MATERIAL SAFETY DATA SHEET

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

Manufacturer: ProChem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

Phone: (815) 398-1788  
Fax: (815) 398-1810  
E-Mail: Prochem1@aol.com

---

## SECTION 1 Product Identification

---

**CHEMICAL NAME:** Sodium hydrogen sulfide, anhydrous  
**CAS #:** 16721-80-5  
**FORMULA:** NaHS  
**SYNONYM:** Sodium bisulfide, Sodium mercaptan

---

## SECTION 2 Composition and Information on Ingredients

---

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	16721-80-5	100	no data	no data

---

## SECTION 3 Hazards Identification

---

**EMERGENCY OVERVIEW:** May form highly toxic and flammable hydrogen sulfide gas on exposure to acids or stomach fluids. Corrosive to skin, eyes, and mucous membranes. Possible risk of irreversible effects.

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

**EYE CONTACT:** Dust causes burns to the eyes.

**SKIN CONTACT:** Causes caustic burns to the skin.

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

**INGESTION:** Gastric juices causes release of toxic hydrogen sulfide.

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

**ACUTE HEALTH EFFECTS:** Hydrogen sulfide gas may cause painful conjunctivitis, headache, nausea, dizziness, pulmonary edema and possible death. Corrosive to skin, eyes, and respiratory tract. Possible risk of irreversible effects.

---

## 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:** Dust may form explosive mixtures with air. Contact with acids gives off hydrogen sulfide, a toxic and flammable gas.

---

## **SECTION 6                      Accidental Release Measures**

---

**SPILL AND LEAK PROCEDURES:** In the case of a spill, the fine powder should be covered with dry sodium carbonate or dolomite in order to reduce the formation of dust. Sweep up the mixture.

---

## **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 chemicals 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:** off white powder

**MOLECULAR WEIGHT:** 56.06

**MELTING POINT (DEG. C.):** no data

**BOILING POINT:** no data

**VAPOR PRESSURE:** no data

**SPECIFIC GRAVITY:** no data

**SOLUBILITY IN WATER:** very soluble

---

## **SECTION 10                    Stability and Reactivity**

---

**STABILITY:** hygroscopic

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization  
**CONDITIONS TO AVOID:** Contact of dust cloud with an ignition source.  
**INCOMPATIBILITY:** oxidizing agents, mineral acids, halogens and carbons  
**DECOMPOSITION PRODUCTS:** hydrogen sulfide, sulfur dioxide, and metal oxides.

---

## **SECTION 11 Toxicological Information**

---

**RTECS DATA:** Intraperitoneal (rat); LD50: 14600 ug/kg. Intraperitoneal (mouse); LD50: 18/ mg/kg. Subcutaneous (mouse); LD50: 200 mg/kg. Intraperitoneal (rat); TDLo: 67500 ug/kg/3D-1. Intraperitoneal (mouse); TDLo: 35 mg/kg/5D-1. Bacteria-Salmonella typhimurim; Mutation in microorganisms: 2 nmol/plate. Oral (insect-Drosophila melanogaster); Sex chromosome loss and nondisjunction: 50 mmol/L. Multiple routes (insect-Drosophila melanogaster); Sex chromosome loss and nondisjunction.

**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 hydrosulphide, Class 4.2, UN 2318, PG II

---

## **SECTION 15 Regulatory Information**

---

**TSCA:** 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.

**DATE PREPARED:** May 2006