# Material Safety Data Sheet

## Identification

**Product #:** 20804-3  
**CAS #:** 1313-84-4  
**MF:** Na₂S  
**Synonyms:** Sodium Sulfide * Sulfure de Sodium (French) *

**RTECS No.:** WE1925000  
**Sodium Sulfide, Nonahydrate**

### Toxicity Hazards

**Toxicity Data:**  
IPR-NUS LD₅₀: 53 mg/kg  
COREAF 257, 791, 63

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

### Acute Effects

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN. INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA OF THE LUNGS AND BRONCHI. CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

### First Aid

**In case of contact,** IMMEDIATELY FLUSH EYES OR SKIN WITH ABUNDANT AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE. DISCARD CONTAMINATED SHOES.

### Specific Gravity: 1.427

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MATERIAL SAFETY DATA SHEET

CUST#: 523216
PO#: QC10266

PRODUCT #: 20804-3
CAS #: 1313-84-4
MF#: NA2S
NAME: SODIUM SULFIDE NONAHYDRATE, 98%, A.C.S. REAGENT

--------- PHYSICAL DATA ---------

APPEARANCE AND ODOR
WHITE CRYSTALLINE CHUNKS

FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA
WATER SPRAY
CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM

SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSION HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS

--------- REACTIVITY DATA ---------

INCOMPATIBILITIES
STRONG ACIDS
AIR SENSITIVE
LIGHT SENSITIVE
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
SULFUR OXIDES
HYDROGEN SULFIDE GAS

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING DUST.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD
TREAT A DILUTE BASIC SOLUTION (PH 10-11) OF THE MATERIAL WITH A 50% EXCESS OF COMMERCIAL LAUNDRY BLEACH. CONTROL THE TEMPERATURE BY THE ADDITION RATE OF BLEACH AND ADJUST PH IF NECESSARY. LET STAND OVERNIGHT. CAUTION: ADJUST SOLUTION TO PH 7. VIGOROUS EVOLUTION OF GAS MAY OCCUR. FILTER ANY SOLIDS FOR BURIAL IN A CHEMICAL LANDFILL. PRECIPITATE ANY HEAVY METALS BY ADDITION OF SULFIDE AND ISOLATE FOR BURIAL. ADDITIONAL EQUIVALENTS OF HYPOCHLORITE MAY BE NEEDED IF THE

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Material Safety Data Sheet

Product #: 20804-3
CAS #: 1313-04-4
MF: Na₂S

Name: Sodium Sulfide Nonahydrate, 98%
A.C.S. Reagent

--------------- SPILL OR LEAK PROCEDURES --------------

Metal can be oxidized to a higher valence state. For metal carbonyls, the reaction should be carried out under nitrogen. Observe all federal, state, and local laws.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---


The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Aldrich shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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