

Name:	Sodium Sulfide Material Safety Data Sheet
Synonym:	Sodium monosulfide; sodium sulfide anhydrous; sodium sulfide with < 30% water of crystallization; sodium sulphid
CAS:	1313-82-2

Section 1 - Chemical Product

MSDS Name: Sodium Sulfide

Synonym: Sodium monosulfide; sodium sulfide anhydrous; sodium sulfide with < 30% water of crystallization; sodium sulphide

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
1313-82-2	Sodium sulfide	ca. 100	215-211-5

Hazard Symbols: C N

Risk Phrases: 31 34 50

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Contact with acids liberates toxic gas. Causes burns. Very toxic to aquatic organisms. Corrosive. Hygroscopic (absorbs moisture from the air).

Potential Health Effects

Eye:

Causes eye burns. May cause irreversible eye injury. May cause blindness. May cause chemical conjunctivitis and corneal damage.

Skin:

Causes skin burns. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause irritation and/or dermatitis. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion:

Harmful if swallowed. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May cause cardiac disturbances.

May cause systemic effects.

Inhalation:

May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. May cause

effects similar to those described for ingestion. Aspiration may lead to pulmonary edema.

May cause systemic effects.

Chronic:

Effects may be delayed.

Section 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

Extensive irrigation with water is required (at least 30 minutes).

Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Destroy contaminated shoes.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Discard contaminated shoes.

Storage:

Store in a cool, dry place. Keep container closed when not in use.

Store in a tightly closed container. Keep from contact with oxidizing materials. Keep away from strong acids. Store protected from moisture.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits CAS# 1313-82-2: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Color: white to yellow
Odor: rotten egg-like - weak odor
pH: Alkaline in solution
Vapor Pressure: Not applicable.
Viscosity: Not applicable.
Boiling Point: 346 deg F
Freezing/Melting Point: 197 deg F
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: Not available.
Solubility in water: 15% @ 20C
Specific Gravity/Density: 1.858
Molecular Formula: Mixture
Molecular Weight: 0

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:
Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid:
Incompatible materials, light, exposure to air, exposure to moist air or water.
Incompatibilities with Other Materials:
Metals, oxidizing agents, acids, carbon, moisture, diazonium salts.
Hazardous Decomposition Products:
Oxides of sulfur, hydrogen sulfide.
Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 1313-82-2: WE1905000 LD50/LC50:
CAS# 1313-82-2: Oral, mouse: LD50 = 205 mg/kg; Oral, rat: LD50 = 208 mg/kg.
Carcinogenicity:
Sodium sulfide - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Bacteria: *Phytobacterium phosphoreum*: EC50 = 4.29 mg/L; 15 minutes; Microtox test

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: SODIUM SULPHIDE, ANHYDROUS

Hazard Class: 4.2

UN Number: 1385

Packing Group: II

IMO

Shipping Name: SODIUM SULPHIDE, ANHYDROUS

Hazard Class: 4.2

UN Number: 1385

Packing Group: II

RID/ADR

Shipping Name: SODIUM SULPHIDE, ANHYDROUS

Hazard Class: 4.2

UN Number: 1385

Packing group: II

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C N

Risk Phrases:

R 31 Contact with acids liberates toxic gas.

R 34 Causes burns.

R 50 Very toxic to aquatic organisms.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 1313-82-2: 2

Canada

CAS# 1313-82-2 is listed on Canada's DSL List.

CAS# 1313-82-2 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 1313-82-2 is listed on the TSCA inventory.