

SAFETY DATA SHEET

1. Identification

| | |
|-----------------------------|---|
| Product Name | Sodium sulfide |
| Cat No. : | AC310180000; AC310180100; AC310180500; AC310182500 |
| CAS No | 1313-82-2 |
| Synonyms | Sodium sulfide anhydrous; sodium sulfide with <30% water of crystalization; sodium sulphide; sodium monosulfide |
| Recommended Use | Laboratory chemicals. |
| Uses advised against | Food, drug, pesticide or biocidal product use. |

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|-----------------------------------|--------------|
| Corrosive to metals | Category 1 |
| Acute oral toxicity | Category 3 |
| Acute dermal toxicity | Category 3 |
| Skin Corrosion/Irritation | Category 1 B |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Combustible dust | Yes |

Label Elements

Signal Word

Danger

Hazard Statements

May form combustible dust concentrations in air

May be corrosive to metals
Causes severe skin burns and eye damage
Toxic if swallowed or in contact with skin



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe the dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep only in original container
Wear respiratory protection

Response

Immediately call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician

Skin

Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion

Rinse mouth
Do NOT induce vomiting

Spills

Absorb spillage to prevent material damage

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in corrosive resistant polypropylene container with a resistant inliner
Store in a dry place

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life
Contact with acids liberates toxic gas
Corrosive to the respiratory tract

3. Composition/Information on Ingredients

| Component | CAS No | Weight % |
|----------------|-----------|----------|
| Sodium sulfide | 1313-82-2 | 90 |

4. First-aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

| | |
|--|--|
| Eye Contact | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. |
| Inhalation | Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |
| Most important symptoms and effects | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|--------------------------|
| Unsuitable Extinguishing Media | No information available |
| Flash Point | No information available |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Fine dust dispersed in air may ignite. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Sulfur oxides. Sulfides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health
3

Flammability
1

Instability
1

Physical hazards
N/A

6. Accidental release measures

| | |
|----------------------------------|---|
| Personal Precautions | Use personal protective equipment as required. Evacuate personnel to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid dust formation. |
| Environmental Precautions | Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. |

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

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|-----------------|--|
| Handling | Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe (dust, vapor, mist, gas). Avoid dust formation. |
| Storage. | Keep in a dry place. Keep container tightly closed. Protect from direct sunlight. Corrosives area. Store under an inert atmosphere. Keep refrigerated. Incompatible Materials. Acids. Metals. copper. |

8. Exposure controls / personal protection

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|---|---|
| <u>Exposure Guidelines</u> | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
| Engineering Measures | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. |
| <u>Personal Protective Equipment</u> | |
| Eye/face Protection | 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 and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | 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. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

| | |
|---|--------------------------|
| Physical State | Powder Solid |
| Appearance | Light cream |
| Odor | Rotten-egg like |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | No data available |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | No information available |
| Solubility | Soluble |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |
| Molecular Formula | Na ₂ S |
| Molecular Weight | 78.04 |

10. Stability and reactivity

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|---|--|
| Reactive Hazard | Yes |
| Stability | Stable under normal conditions. Hygroscopic. Air sensitive. Light sensitive. |
| Conditions to Avoid | Exposure to air. Exposure to light. Incompatible products. Exposure to moist air or water. |
| Incompatible Materials | Acids, Metals, copper |
| Hazardous Decomposition Products | Sulfur oxides, Sulfides |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------|--------------------------|------------------------|-----------------|
| Sodium sulfide | LD50 = 208 mg/kg (Rat) | < 340 mg/kg (Rabbit) | Not listed |

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes severe irritation and or burns

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|----------------|-----------|------------|------------|------------|------------|------------|
| Sodium sulfide | 1313-82-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|----------------|------------------|---|-------------------------|---------------------|
| Sodium sulfide | Not listed | LC50: 7.7 - 29.1 mg/L, 96h (Poecilia reticulata) | EC50 = 4.29 mg/L 15 min | EC50 = 2.1 mg/L 48h |

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

| Component | log Pow |
|----------------|---------|
| Sodium sulfide | 3.5 |

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1385
 Proper Shipping Name SODIUM SULPHIDE, ANHYDROUS
 Hazard Class 4.2
 Packing Group II

TDG

UN-No UN1385
 Proper Shipping Name SODIUM SULPHIDE, ANHYDROUS
 Hazard Class 4.2
 Subsidiary Hazard Class II

IATA

UN-No UN1385
 Proper Shipping Name SODIUM SULPHIDE, ANHYDROUS
 Hazard Class 4.2
 Packing Group II

IMDG/IMO

UN-No UN1385
 Proper Shipping Name SODIUM SULPHIDE, ANHYDROUS
 Hazard Class 4.2
 Packing Group II

15. Regulatory information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|----------------|-----------|------|--|--------------------------------|
| Sodium sulfide | 1313-82-2 | X | ACTIVE | - |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea

(KECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|----------------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Sodium sulfide | 1313-82-2 | X | - | 215-211-5 | X | X | X | X | X | KE-12378 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations**

| | |
|---|------------------------------------|
| SARA 313 | Not applicable |
| SARA 311/312 Hazard Categories | See section 2 for more information |
| CWA (Clean Water Act) | Not applicable |
| Clean Air Act | Not applicable |
| OSHA - Occupational Safety and Health Administration | Not applicable |
| CERCLA | Not applicable |

California Proposition 65 This product does not contain any Proposition 65 chemicals.**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------|---------------|------------|--------------|----------|--------------|
| Sodium sulfide | X | X | - | - | - |

U.S. Department of Transportation

| | |
|-----------------------------|---|
| Reportable Quantity (RQ): | N |
| DOT Marine Pollutant | N |
| DOT Severe Marine Pollutant | N |

U.S. Department of Homeland Security This product does not contain any DHS chemicals.**Other International Regulations****Mexico - Grade** No information available**Authorisation/Restrictions according to EU REACH**

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|----------------|---|---|---|
| Sodium sulfide | - | Use restricted. See item 75. (see link for restriction details) | - |

<https://echa.europa.eu/substances-restricted-under-reach>**Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|----------------|-----------|----------|------------------------------|---------------------------|--|
| Sodium sulfide | 1313-82-2 | Listed | Not applicable | Not applicable | Not applicable |

| Component | CAS No | Seveso III Directive | Seveso III Directive | Rotterdam | Basel Convention |
|-----------|--------|----------------------|----------------------|-----------|------------------|
| | | | | | |

| | | (2012/18/EC) - Qualifying Quantities for Major Accident Notification | (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Convention (PIC) | (Hazardous Waste) |
|----------------|-----------|---|--|------------------|-------------------|
| Sodium sulfide | 1313-82-2 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

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