



1. DESCRIPTION

Trade Name: Sodium Sulfide 60%

Chemical Name: Sodium sulfide hydrate

Application: Laboratory chemical, Laboratory and analytical use, Manufacture of substances, - Water treatment, De-hairing agent, Textile industry, Manufacture of pulp, paper and paper product

Supplier: TEAM Chemicals

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients

NAME	CAS RN	Proportion
Sodium Sulfide, anhydrous	1313-82-2	60-63%
Water	7732-18-5	37-40%

3. HAZARD IDENTIFICATION

Emergency Overview:

Hazardous in case of eye contact (irritant), of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion.

Skin contact can produce inflammation and blistering. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Eye contact can result in corneal damage or blindness.

Potential Acute Health Effects:

Eye Contact: Eye contact can result in corneal damage or blindness.

Skin Contact: This product may cause irritation to the skin. Skin contact can produce inflammation and blistering.

Inhalation: Inhalation of concentrated vapors may cause irritation.

Ingestion: The substance may be toxic to teeth. Repeated or prolonged exposure to the substance can produce target organs damage.

Irritant YES **Flammable** N.A

Carcinogenic N.A. **Oxidant** NO

Explosive NO

Environmental Hazard NO

Corrosive YES

(Risk-Phrases) H301/H314/H318

(Safety-Phrases) -





4. FIRST AID MEASURES

Eye Contact:

- Call a physician or poison control center immediately.
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).

Skin Contact: -

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with plenty of water.
- Keep warm and in a quiet place.

Inhalation: - If fumes or combustion products are inhaled remove from contaminated area. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If swallowed, rinse mouth with water.

5. FIRE FIGHTING MEASURES

Flammable Properties: Auto-ignition temperature is more than 806 °F (> 430 °C)

Extinguishing Media: Use flooding quantities of water or other suitable extinguishing agent.

Fire Fighting: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures.

Fire/Explosion Hazard: Not combustible.

Fire Incompatibility: Sulfur oxides is hazardous product, in case of fire

- Personal Protection:**
- Exposure to decomposition products may be a hazard to health.
 - In the event of fire, wear self-contained breathing apparatus.
 - Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Small Spill:

- Clean up all spills immediately
- Wipe up. Absorb with liquid-binding material (sand, etc.)
- Keep people away from and upwind of spill/leak
- Do not touch damaged containers.
- Clean contaminated surface thoroughly

Large Spill:

Ventilate area of leak or spill. Remove all sources of ignition. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors.

7. HANDLING AND STORAGE

Handling Precautions:

- Use product only in closed system.
- Ensure adequate ventilation.
- Keep away from heat.
- Keep away from incompatible products

Storage Precautions:

Use care in handling/storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid release to the environment. Refer to National Fire Protection Association (NFPA) 430, Code for the Storage of Solid and Liquid Oxidizers.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE Limits Carbonic acid sodium salt (1:2): TWA (10 mg/m³)

PERSONAL PROTECTION

Use of protective coveralls and long sleeves is recommended.

Use of impervious boots are recommended.

Protective gloves.

If ventilation is not sufficient to effectively prevent buildup of aerosols or mists, appropriate NIOSH/MSHA respiratory protection must be provided.

ENGINEERING CONTROLS

Provide appropriate exhaust ventilation at places where dust is formed.

Apply technical measures to comply with the occupational exposure limits.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state and appearance: Yellow solid flakes

Color: Yellow

Odor: Rotten egg

pH (1% solution): >12

Melting/Freezing Point: 92° C

Boiling Point: 174° C

Specific Gravity: 1.858

Solubility: Soluble in water.

10. STABILITY & REACTIVITY

Chemical Stability: In contact with water, releases a gas that presents a health hazard. Releases a flammable gas on contact with water or water vapor.

Conditions to Avoid: Water, moisture or humidity. Open flames, sparks, static discharge, heat and other ignition sources.

Materials to Avoid: oxidizing agents, Strong acids, water

Hazardous Decomposition Products: Very toxic, flammable hydrogen sulfide; corrosive sulfur oxides.

Special Remarks on Corrosivity: Highly corrosive!

11. TOXICOLOGICAL INFORMATION

LD50 : 246 mg/kg – Rat.

Skin Corrosion/Irritation

Animal tests show skin corrosion.

Serious Eye Damage/irritation

Causes serious eye damage based on skin corrosion information.

Special Remarks on Toxicity to Animals:

Toxicity to daphnia

and other aquatic

invertebrates

LC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h

Remarks: (ECOTOX Database)

Toxicity to algae Growth inhibition ErC50 - Chlorella pyrenoids - 75 mg/l - 96 h

Remarks: (ECOTOX Database)

Other Toxic Effects on Humans: No information was located.



12. ECOLOGICAL INFORMATION

Aquatic Compartment

Acute toxicity to fish

Hydrogen sulfide (H₂S)

LC50 - 96 h : 0.0027 mg/l - Fish

Sodium sulfide (Na₂S)

LC50 - 96 h : 0.55 mg/l - Brachydanio rerio (zebrafish)

Acute toxicity to daphnia and other aquatic invertebrates.

Hydrogen sulfide (H₂S)

EC50 - 96 h : 0.02 mg/l - Crustaceans

Fresh water

EC50 - 96 h : 0.032 mg/l - Crustaceans

Sea water

Biodegradation

aerobic

Method: Oxidation

Test substance: Sulfides

Degradation products:

sulfites

sulfates

anaerobic

Method: biodegradation by sulforeduction

Test substance: sulfates

Degradation products:

Hydrogen sulfide

anaerobic

Method: methanogenesis

Test substance: sulfates

Inhibitor

13. DISPOSAL CONSIDERATION

DISPOSAL METHODS:

- In accordance with local and national regulations.
- Where possible recycling is preferred to disposal or incineration.
- Use an FeCl₃ solution to precipitate FeS.
- Filtrate the product and send the cake to a landfill for industrial waste.

14. TRANSPORT INFORMATION

DOT Classification: US DOT (UN1849): transport Hazard Class 8- Packaging group II

Canadian TDG (UN1849): transport Hazard Class 8- Packaging group II



Tiam Earth Advanced Materials

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Material Safety Datasheet

SODIUM SULFIDE 60%



www.teamchem.co

15. REGULATORY INFORMATION

Classification:

Canada: Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL or are not required to be listed.

USA: Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

16. ADDITIONAL INFORMATION

Reason(s) for Issue:

3 Yearly Revised Primary MSDS
Update in Toxicological Information
Update in Ecological Information

This MSDS summarizes to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. TEAM cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.



Tiam Earth Advanced Materials

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. TEAM Chemicals and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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