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Sodium Sulfide 60% – Material Safety Data Sheet (MSDS)

Product Name: Sodium Sulfide 60% Flakes
Chemical Formula: Na_2S
CAS Number: 1313-82-2 (Anhydrous)
Product Type: Industrial Chemical
Document Type: Safety Data Sheet (SDS) – General Reference

Section 1: Identification of the Substance and Company

Product Identifier: Sodium Sulfide 60% Flakes
Synonyms: Sodium Sulphide, Disodium Sulfide, Sodium Monosulfide
Recommended Uses: Leather processing, pulp and paper manufacturing, textile dyeing, mineral processing, chemical synthesis, and industrial wastewater treatment.

Restrictions on Use: Use only in properly controlled industrial processes.

Supplier Information: Refer to the supplier's official documentation for company address, telephone number, and emergency contact details.

Section 2: Hazards Identification

This substance presents significant corrosive, toxicological, and environmental hazards. Contact with acids may release highly toxic hydrogen sulfide gas.

GHS Signal Word: Danger

Principal Hazards:

- Causes severe skin burns and serious eye damage.
- Harmful or toxic through certain exposure routes, depending on product classification.
- Releases toxic hydrogen sulfide gas when it contacts acids.
- Presents serious hazards to aquatic organisms.
- May corrode certain metals.

Precautionary Measures:

- Avoid breathing dust and decomposition gases.
- Wear suitable chemical-resistant gloves, protective clothing, and eye protection.

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- Prevent contact with acids.
- Keep the material away from drains and waterways.
- Seek immediate medical assistance after significant exposure.

Section 3: Composition and Information on Ingredients

Component	Concentration
Sodium Sulfide (Na_2S)	Approximately 60% by Mass
Water of Hydration and Other Constituents	Balance
Chemical Formula	Na_2S
CAS Number (Anhydrous)	1313-82-2

Commercial grades may contain sodium carbonate, sodium sulfite, sodium thiosulfate, and other impurities. Actual composition depends on the manufacturer.

Section 4: First Aid Measures

Inhalation: Move the affected person to fresh air if rescuers can do so safely. Avoid entering a contaminated atmosphere without appropriate respiratory protection. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing immediately. Rinse the affected area thoroughly with running water. Obtain urgent medical assistance.

Eye Contact: Immediately rinse the eyes with water for at least 15 minutes. Remove contact lenses if possible without delaying irrigation. Seek emergency medical care.

Ingestion: Rinse the mouth if the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical assistance.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media: Select extinguishing agents according to the surrounding fire and the product-specific SDS.

Specific Hazards: Heating or decomposition may release toxic sulfur-containing gases, including sulfur oxides. Contact with acids can generate hydrogen sulfide.

Protective Equipment: Firefighters should wear appropriate protective clothing and self-contained breathing apparatus.

Fire-Fighting Precautions: Isolate the affected area and prevent contaminated runoff from entering drains or natural waterways.

Section 6: Accidental Release Measures

Restrict access to the affected area and prevent unprotected personnel from entering.

Use suitable protective equipment and avoid creating airborne dust.

Keep spilled material away from acids, moisture, and incompatible chemicals.

Collect the material using appropriate equipment and place it in compatible, labeled containers.

Prevent environmental contamination and arrange disposal through an authorized waste contractor.

Section 7: Handling and Storage

Safe Handling

Handle the material in properly ventilated industrial facilities.

Avoid direct contact with skin and eyes. Prevent dust inhalation and accidental ingestion.

Do not mix the product with acids or incompatible oxidizing agents.

Maintain suitable hygiene practices and wash thoroughly after handling.

Storage Conditions

Store in tightly closed, compatible containers in a cool, dry, well-ventilated location.

Protect the material from moisture and incompatible substances.

Keep containers clearly labeled and restrict access to trained personnel.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: Provide suitable local exhaust ventilation and equipment for monitoring potential hydrogen sulfide exposure.

Respiratory Protection: Select respiratory equipment according to the workplace exposure assessment and applicable safety standards.

Eye Protection: Wear chemical safety goggles and a face shield where splash or dust exposure may occur.

Hand Protection: Use gloves that provide suitable chemical resistance.

Skin Protection: Wear protective clothing and chemical-resistant footwear when necessary.

Hygiene Measures: Do not eat, drink, or smoke while handling the product.

Section 9: Physical and Chemical Properties

Property	Description
Physical State	Solid Flakes
Color	Yellow to Reddish
Odor	Possible Hydrogen Sulfide Odor
Chemical Formula	Na_2S
Molecular Weight (Anhydrous)	78.04 g/mol
Solubility	Soluble in Water
pH	Strongly Alkaline in Solution
Flammability	Product-Specific Data Required
Melting Point	Depends on Hydration State
Density	Depends on Product Grade
Decomposition	May Release Hazardous Sulfur-Containing Gases

Section 10: Stability and Reactivity

Reactivity: Reacts with acids and releases toxic hydrogen sulfide gas.

Chemical Stability: The material remains suitable for storage when users follow the manufacturer's recommended conditions.

Possibility of Hazardous Reactions: Contact with incompatible chemicals may cause dangerous reactions.

Conditions to Avoid: Moisture exposure, contact with acids, incompatible oxidizers, and unsuitable heating conditions.

Incompatible Materials: Acids and strong oxidizing agents.

Hazardous Decomposition Products: Hydrogen sulfide and sulfur oxides may form under relevant reaction or decomposition conditions.

Section 11: Toxicological Information

Exposure may cause severe injury to skin, eyes, and other affected tissues.

Inhalation: Dust may damage respiratory tissues. Released hydrogen sulfide can cause severe poisoning and potentially fatal exposure.

Skin Contact: Causes chemical burns.

Eye Contact: Causes serious eye damage.

Ingestion: May cause corrosive injury to the mouth, throat, and digestive tract.

Long-Term Effects: Evaluate chronic exposure risks using the manufacturer's toxicological data and workplace exposure assessment.

Section 12: Ecological Information

The material can present serious hazards to aquatic organisms.

Uncontrolled releases may affect water quality and aquatic ecosystems.

Environmental behavior depends on pH, oxygen availability, sulfide concentration, and other site-specific conditions.

Prevent discharge into surface water, soil, and drainage systems.

Section 13: Disposal Considerations

Treat contaminated material and waste as potentially hazardous.

Do not release the product into drains or natural waterways.

Use authorized waste management contractors and follow applicable environmental regulations.

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Dispose of contaminated packaging according to local requirements.

Section 14: Transport Information

Parameter	Information
UN Number	UN 1849 for Applicable Hydrated Grade
Proper Shipping Name	Sodium Sulphide, Hydrated
Transport Hazard Class	8
Packing Group	II
Main Transport Hazard	Corrosive
Applicable Regulations	ADR, RID, IMDG, IATA as Relevant

Transport classification must match the exact composition and hydration state of the shipped material.

Section 15: Regulatory Information

The product may fall under chemical classification, labeling, workplace safety, environmental protection, and dangerous-goods transport regulations.

Applicable requirements depend on the country of manufacture, destination market, and specific product composition.

Users should consult the current supplier SDS and relevant national legislation.

Section 16: Other Information

Document Title: Sodium Sulfide 60% – Material Safety Data Sheet
Intended Application: Industrial Chemical Safety Reference
Document Status: General Reference – Not Manufacturer-Certified

This document provides general safety information for industrial-grade material. It does not replace a manufacturer-issued Safety Data Sheet. The supplier must verify the exact composition, hazard classification, emergency contact information, physical properties, and regulatory requirements before issuing an official SDS.