



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: Hydrogen Sulfide
- Product Number: H2S-20260217
- Brand: SIGALD
- CAS-No.: 7783-06-4
- Synonyms: Hydrosulfuric Acid; Sulfureted Hydrogen

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
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- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

Emergency Phone # : +86-021-50350029
(CHEMTREC)

1.4 Uses

- Identified Uses: Chemical synthesis (sulfuric acid, sulfur), metallurgy (ore flotation), oil refining, laboratory reagent.
- Uses Advised Against: Unauthorized use; any use without proper safety equipment.

SECTION 2: Hazards Identification

2.1 GHS Classification: Acute toxicity (inhalation, Category 1); Flammable gas (Category 1); Corrosive to metals (Category 1); Aquatic toxicity (Category 1)

2.2 GHS Label Elements

- Hazard Pictogram: GHS04 (Flame), GHS06 (Skull and crossbones), GHS05 (Corrosion), GHS09 (Environment)
- Signal Word: Danger
- Hazard Statements: H220 (Extremely flammable gas), H330 (Fatal if inhaled), H314 (Causes severe skin burns and eye damage), H290 (May be corrosive to metals), H400 (Very toxic to aquatic life)
- Precautionary Statements: P210 (Keep away from heat/sparks/open flames), P260 (Do not breathe gas/vapors), P280 (Wear protective gloves/protective clothing/eye protection/face protection), P304+P340 (If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing), P310 (Immediately call a poison center or doctor)

SECTION 3: Composition

- Substance: Pure Substance
- Formula: H₂S
- Molecular Weight: 34.08 g/mol



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- Concentration: $\geq 99.5\%$ (H₂S)

SECTION 4: First Aid Measures

- Inhaled: Immediately remove to fresh air. Administer oxygen if breathing is difficult. Keep victim calm. Immediately call a doctor or poison center.
- Skin Contact: Remove contaminated clothing, rinse skin thoroughly with plenty of running water for 15-20 minutes. Consult a doctor.
- Eye Contact: Hold eyes open, rinse thoroughly with large amounts of running water for 15-20 minutes. Immediately call a doctor.
- Swallowed: Not applicable (gas); if liquid form is swallowed, rinse mouth with water. Do not induce vomiting. Call a doctor immediately.

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Dry powder, CO₂, water spray (mist).
- Special Hazards: Extremely flammable. Explosive limits: 4.3-46.0% (v/v) in air. Combustion produces toxic sulfur dioxide.
- Firefighter Protection: Wear full protective equipment and self-contained breathing apparatus. Cool containers with water spray from a safe distance.

SECTION 6: Accidental Release Measures

- Personal Precautions: Evacuate area immediately. Wear self-contained breathing apparatus, chemical protective suit, gloves, eye/face protection.
- Environmental Precautions: Prevent release to waterways and sewers.
- Cleanup Methods: Ventilate area thoroughly. Use inert gas to dilute. Do not allow gas to accumulate in confined spaces.

SECTION 7: Handling and Storage

- Handling: Use only in well-ventilated, explosion-proof areas. Use explosion-proof equipment. Avoid sparks, heat, and open flames. Do not pressurize or heat containers.
- Storage: Store in cool, dry, well-ventilated warehouse. Use pressure-resistant, corrosion-resistant cylinders. Keep away from heat, sparks, open flames, oxidizing agents, and acids.
- Shelf Life: 12 months (cylinder, proper storage).

SECTION 8: Exposure Controls/Personal Protection

- PPE: Self-contained breathing apparatus (SCBA), chemical-resistant suit, nitrile gloves, chemical splash goggles, face shield.
- Engineering Controls: Explosion-proof ventilation, gas detection systems, emergency shutdown systems.
- Exposure Limits: TWA (8h): 10 ppm (OSHA); STEL (15min): 15 ppm (OSHA).

SECTION 9: Physical and Chemical Properties

- Physical State: Gas
- Color: Colorless
- Odor: Rotten egg smell (detectable at 0.5 ppm)



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- Melting Point: -85.5°C
- Boiling Point: -60.3°C
- Flammability: Extremely flammable (autoignition temperature: 260°C)
- Solubility: Slightly soluble in water (4.6 g/L at 20°C); soluble in organic solvents.
- Density: 1.19 g/L (air = 1, 25°C)
- Vapor Pressure: 1740 kPa (20°C)

SECTION 10: Stability and Reactivity

- Stable under normal conditions. Incompatible with oxidizing agents, acids, metals, halogens.
- Hazardous Reactions: Reacts violently with oxidizing agents (e.g., hydrogen peroxide, chlorine) to produce toxic gases.

SECTION 11: Toxicological Information

- Inhalation LC₅₀ (Rat, 4h): 444 ppm
- Skin Corrosion: Severe corrosion.
- Eye Damage: Severe eye damage.
- Toxic Effects: High concentrations can cause respiratory paralysis and death; chronic exposure may damage respiratory and nervous systems.

SECTION 12: Ecological Information

- Aquatic Toxicity: Very toxic to fish (Zebrafish LC₅₀: < 1 mg/L, 96h).
- Biodegradability: Not biodegradable.
- Bioaccumulation: No bioaccumulation potential.

SECTION 13: Disposal Considerations

- Dispose in accordance with local, national, and international regulations. Incinerate in approved facilities with proper scrubbing systems to remove sulfur dioxide.

SECTION 14: Transport Information

- UN Number: UN1053
- Transport Hazard Class: 2.3 (Toxic gases)
- Packaging Group: I
- Marine Pollutant: Yes

SECTION 15: Regulatory Information

- Complies with GHS, REACH, TSCA, IMDG Code, IATA-DGR regulations.
- Classified as a hazardous chemical under Chinese Hazardous Chemical Safety Management Regulation.

SECTION 16: Other Information

- Revision Date: 17 FEB 2026