



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: Phosphine
- Product Number: PH3-20260203
- Brand: SIGALD
- CAS-No.: 7803-51-2
- Synonyms: Hydrogen Phosphide; Phosphine Gas

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: Fumigant (grain storage), chemical synthesis, semiconductor manufacturing, laboratory reagent.
- Uses Advised Against: Unauthorized use; any use without proper safety equipment and training.

SECTION 2: Hazards Identification

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

- Hazard Pictogram: GHS04 (Flame), GHS06 (Skull and crossbones), GHS09 (Environment)
- Signal Word: Danger
- Hazard Statements: H220 (Extremely flammable gas), H330 (Fatal if inhaled), 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), P310 (Immediately call a poison center or doctor)

SECTION 3: Composition

- Substance: Pure Substance
- Formula: PH₃
- Molecular Weight: 34.00 g/mol
- Concentration: ≥ 99.0% (PH₃)

SECTION 4: First Aid Measures



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- Inhaled: Immediately remove to fresh air. Administer oxygen if breathing is difficult. Keep victim calm. Immediately call a doctor or poison center.
- Skin Contact: Not applicable (gas); if liquid form contacts skin, rinse with running water for 10 minutes.
- Eye Contact: Not applicable (gas); if liquid form contacts eyes, rinse thoroughly with running water for 15 minutes. Call a doctor.
- Swallowed: Not applicable (gas).

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Dry powder, CO₂.
- Special Hazards: Extremely flammable (explosion limits: 1.8-98% v/v). Combustion produces toxic phosphorus oxides.
- Firefighter Protection: Wear full protective equipment and self-contained breathing apparatus. Cool cylinders 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.
- Environmental Precautions: Prevent release to waterways.
- Cleanup Methods: Ventilate area thoroughly. Use inert gas to dilute. Stop leak if safe to do so.

SECTION 7: Handling and Storage

- Handling: Use only in well-ventilated, explosion-proof areas. Use leak-proof, explosion-proof equipment. Avoid sparks, heat, and open flames.
- Storage: Store in cool, dry, well-ventilated warehouse. Use pressure-resistant steel cylinders. Keep away from heat, sparks, open flames, oxidizing agents. Storage temperature ≤ 30°C.
- 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.
- Engineering Controls: Explosion-proof ventilation, gas detection systems, emergency shutdown systems.
- Exposure Limits: TWA (8h): 0.3 ppm (OSHA); STEL (15min): 1 ppm (OSHA).

SECTION 9: Physical and Chemical Properties

- Physical State: Gas
- Color: Colorless
- Odor: Garlic-like (detectable at 0.5 ppm)
- Melting Point: -133.8°C
- Boiling Point: -87.7°C
- Solubility: Slightly soluble in water (26 mL/100 mL at 20°C); soluble in organic solvents.
- Density: 1.18 g/L (air = 1, 25°C)



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- Vapor Pressure: 4133 kPa (20°C)

SECTION 10: Stability and Reactivity

- Stable under normal conditions. Incompatible with oxidizing agents, halogens, strong acids.

SECTION 11: Toxicological Information

- Inhalation LC₅₀ (Rat, 4h): 11 ppm
- Toxic Effects: Fatal at high concentrations; causes respiratory failure, neurological damage.

SECTION 12: Ecological Information

- Aquatic Toxicity: Very toxic to fish (LC₅₀ < 0.1 mg/L, 96h).
- Biodegradability: Not biodegradable.

SECTION 13: Disposal Considerations

- Dispose in accordance with local, national, and international regulations. Incinerate in approved facilities with scrubbing systems.

SECTION 14: Transport Information

- UN Number: UN2199
- Transport Hazard Class: 2.3 (Toxic gases) + 2.1 (Flammable 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: 03 FEB 2026

纳维盈医化科技
NEWAY SINOPHC TECH