

SAFETY DATA SHEET(MSDS)

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

2-Phosphonobutane-1,2,4-tricarboxylic Acid (PBTCa)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: 2-Phosphonobutane-1,2,4-tricarboxylic Acid (PBTCa)
- Product Number: PBTCa-CAS37971361-202603
- Brand: SIGALD
- CAS-No.: 37971-36-1
- Synonyms: PBTCa; 2-Phosphonobutane Tricarboxylic Acid

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
- RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI)PILOT FREE TRADE ZONE.
- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

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

1.4 Uses & Restrictions

- Identified Uses: Water treatment 阻垢缓蚀剂 (scale and corrosion inhibitor for industrial circulating water, cooling water systems)
- Uses Advised Against: Pharmaceutical, food, or household purposes.

SECTION 2: Hazards Identification

2.1 GHS Classification: Skin corrosion/irritation (Category 1B); Eye damage (Category 1)
2.2 GHS Label Elements

- Hazard Pictogram: (Corrosion)
- Signal Word: DANGER
- Hazard Statements: H314 (Causes severe skin burns and eye damage)
- Precautionary Statements: P260, P280, P301+P330+P331, P304+P340, P305+P351+P338



NEWAY SINOPHC TECH. LIMITED

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

2.3 Physical/Chemical Hazards: Corrosive to metals; reacts with strong bases.2.4 Health Hazards: Severe skin/eye burns; inhalation of mist may irritate respiratory tract.2.5 Environmental Hazards: Low toxicity to aquatic organisms; biodegradable.

SECTION 3: Composition/Information on Ingredients

- Substance/Mixture: Mixture | Main Component | Content (w/w) | CAS-No.
| |-----|-----|-----| | PBTCA | 50.0-55.0% | 37971-36-1 | | Deionized Water |
Balance | 7732-18-5 |

SECTION 4: First Aid Measures

- Inhaled: Move to fresh air; administer oxygen if needed; seek medical attention.
- Skin Contact: Remove contaminated clothing; rinse skin with plenty of water for ≥15 minutes; consult a doctor.
- Eye Contact: Hold eyelids open; rinse with water/normal saline for ≥15 minutes; seek emergency medical help.
- Swallowed: Do not induce vomiting; rinse mouth with water; bring MSDS to doctor.

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Water spray, foam, CO₂, dry powder.
- Unsuitable Media: Direct high-pressure water jet (may splatter corrosive liquid).
- Special Hazards: Non-combustible; decomposes above 200°C releasing toxic fumes (PO_x, CO_x).
- Firefighter Advice: Wear SCBA and corrosion-resistant protective clothing.

SECTION 6: Accidental Release Measures

- Personal Precautions: Wear full PPE; evacuate unprotected personnel.
- Environmental Precautions: Prevent runoff into sewers/rivers.
- Cleanup: Small spill - absorb with inert materials (sand, vermiculite); large spill - dike and transfer to corrosion-resistant tanks; neutralize with lime before disposal.

SECTION 7: Handling and Storage

- Handling: Operate in well-ventilated area; avoid contact with skin/eyes; do not mix with strong bases.
- Storage: Cool, dry, well-ventilated warehouse (≤30°C); keep container tightly closed; store separately from bases/oxidizing agents.
- Shelf Life: 12 months (unopened, specified conditions).

SECTION 8: Exposure Controls/Personal Protection

- PPE: Chemical safety goggles, face shield, nitrile rubber gloves, acid-resistant clothing.
- Respiratory Protection: Half-mask respirator with acid gas cartridges (when mist is generated).

SECTION 9: Physical and Chemical Properties

- Physical State: Liquid; Color: Colorless to pale yellow; Odor: Mild acidic odor
- pH (1% Solution): 1.5-3.0; Density (25°C): 1.28-1.35 g/cm³; Viscosity (25°C): 20-50 mPa·s
- Boiling Point: Decomposes; Solubility: Fully miscible with water.

SECTION 10: Stability and Reactivity

- Stability: Stable under normal conditions; Incompatible with strong bases, oxidizing agents, active metals.
- Hazardous Decomposition Products: PO_x, CO_x (above 200°C).

SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD₅₀): >2000 mg/kg; Dermal (Rabbit, LD₅₀): >5000 mg/kg
- Skin/Eye Irritation: Severe skin/eye damage.

SECTION 12: Ecological Information

- Fish (Zebrafish, LC₅₀): >1000 mg/L (96h); Biodegradability: Biodegradable (BOD₅/COD >0.3).

SECTION 13: Disposal Considerations

- Product Waste: Neutralize to pH 6-9; dispose via licensed hazardous waste facilities.
- Packaging Waste: Rinse thoroughly; dispose as hazardous waste or recycle.

SECTION 14: Transport Information

- UN Number: UN 3265; UN Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
- Transport Class: 8; Packaging Group: III; Environmental Hazards: No.

SECTION 15: Regulatory Information

- National Regulations: Complies with China Hazardous Chemical Safety Management Regulation.
- International Regulations: GHS Rev.9 (Corrosion 1B); REACH (not in SVHC List); TSCA (listed).

SECTION 16: Other Information

- Revision Date: 10 MAR 2025
- Disclaimer: Based on current scientific knowledge; supplier not liable for improper use.