



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: Potassium Bicarbonate
- Product Number: PBC-20260216
- Brand: SIGALD
- CAS-No.: 298-14-6
- Synonyms: Potassium hydrogen carbonate; Carbonic acid monopotassium salt

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 & Restrictions

- **Identified Uses:** Food additive (leavening agent/buffering agent), pharmaceutical excipient, agricultural fungicide, water treatment pH adjuster, industrial buffering agent.
- **Uses Advised Against:** Mixing with strong acids (releases CO₂ gas); excessive use in food beyond FDA/EU limits.

SECTION 2: Hazards Identification

2.1 GHS Classification: Eye irritation (Category 2A) 2.2 GHS Label Elements

- Hazard Pictogram: GHS07 (Exclamation mark)
- Signal Word: Warning
- Hazard Statements: H319 (Causes serious eye irritation)
- Precautionary Statements: P264, P280, P305+P351+P338

2.3 Physical/Chemical Hazards: Non-combustible; reacts with strong acids to release CO₂ (no explosive risks); decomposes at >200°C to K₂CO₃+CO₂+H₂O. 2.4 Health Hazards: Mild eye irritation; dust inhalation may cause temporary respiratory irritation; no skin irritation/acute toxicity (oral/dermal). 2.5 Environmental Hazards: Negligible aquatic toxicity; natural mineral salt (K/CO₃); no environmental persistence/bioaccumulation.

SECTION 3: Composition

- **Substance/Mixture:** Pure Substance
- **Main Component:** Potassium Bicarbonate (≥99.0%, CAS:298-14-6)
- **Formula:** KHCO₃
- **Molecular Weight:** 100.12 g/mol



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- **Hazardous Ingredients:** None

SECTION 4: First Aid Measures

- **Inhaled:** Move to fresh air. If coughing persists, drink water and consult a doctor if needed.
- **Skin Contact:** Rinse with running water for 3–5 mins; no special treatment (no irritation).
- **Eye Contact:** Rinse thoroughly with water for 10–15 mins (hold eyelids open); consult an ophthalmologist if irritation remains.
- **Swallowed:** Rinse mouth with water; no special treatment (food-grade, non-toxic). Seek medical advice only for large ingestions (gastrointestinal bloating).

SECTION 5: Firefighting Measures

- **Suitable Extinguishing Media:** Water spray, foam, CO₂, dry powder.
- **Special Hazards:** Non-combustible; decomposes at >200°C to release CO₂ (harmless); reacts with acids to release CO₂ (no fire risk).
- **Firefighter Protection:** Wear standard fire gear; no special respiratory protection needed.

SECTION 6: Accidental Release Measures

- **Personal Precautions:** Wear safety goggles/dust mask (large spills); nitrile gloves (optional, no skin irritation).
- **Cleanup Methods:** Sweep with inert materials (sand/vermiculite) and transfer to sealed HDPE containers; dissolve small spills in water and flush to wastewater (local regulations).
- **Environmental Precautions:** No special measures; K/CO₃ ions are natural to aquatic/soil environments.

SECTION 7: Handling and Storage

- **Handling:** Operate in well-ventilated area; avoid dust inhalation/eye contact; do not mix with strong acids (CO₂ release).
- **Storage Conditions:** Cool, dry warehouse (≤30°C); sealed moisture-proof packaging; avoid direct sunlight/high temperature (>200°C).
- **Incompatibilities:** Strong acids (HCl/H₂SO₄), strong oxidizing agents, concentrated mineral acids.
- **Shelf Life:** 36 months (unopened, specified conditions).

SECTION 8: Exposure Controls/Personal Protection

- **PPE:** Safety goggles (routine handling); N95 dust mask (bulk powder); nitrile gloves (optional).
- **Engineering Controls:** Basic ventilation; dust collection system (bulk processing); fume hood (acid contact operations).
- **Occupational Exposure Limits:** No established limits (food-grade, non-toxic).

SECTION 9: Physical and Chemical Properties

- **Physical State:** White crystalline powder/crystals (25°C)
- **Odor:** Odorless
- **Solubility:** 22.4 g/100mL (water, 20°C); insoluble in alcohols/ethers
- **pH (1% aq. solution):** 8.2–9.8 (mildly alkaline)



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- Density: 2.17 g/cm³ (25°C)
- Melting Point: Decomposes (>200°C)
- Flammability: Non-combustible
- Hygroscopy: Slightly hygroscopic

SECTION 10: Stability and Reactivity

- **Stability:** Chemically stable under normal storage/use ($\leq 30^{\circ}\text{C}$, sealed); slightly hygroscopic (no degradation).
- **Hazardous Reactions:** None under normal use; reacts with strong acids to release CO₂ gas.
- **Decomposition Products:** Potassium carbonate, carbon dioxide, water ($\geq 200^{\circ}\text{C}$; no toxic byproducts).

SECTION 11: Toxicological Information

- Oral LD₅₀ (Rat): >4000 mg/kg; Dermal LD₅₀ (Rabbit): >5000 mg/kg (non-toxic)
- Skin Irritation: None (Rabbit, 4h); Eye Irritation: Mild (Rabbit, 24h; reversible)
- No mutagenic/carcinogenic/reproductive toxic effects reported (FDA GRAS).

SECTION 12: Ecological Information

- Aquatic Toxicity (Zebrafish LC₅₀): >5000 mg/L (96h)
- Persistence: Fully dissociated into K⁺ and HCO₃⁻; no biodegradation needed (natural ions)
- Bioaccumulative Potential: None (K is an essential nutrient; CO₃ is a natural inorganic ion)

SECTION 13: Disposal Considerations

- **Product Waste:** Dispose via licensed facilities; dissolve in water and discharge to wastewater systems (local regulations); can be used as agricultural potassium fertilizer (unspoiled).
- **Packaging Waste:** Rinse with water; recycle as non-hazardous plastic/paper waste.

SECTION 14: Transport Information

- UN Number: Not dangerous goods
- Transport Class/Packaging Group: N/A
- Marine Pollutant: No
- **Precautions:** Avoid moisture/collision; keep sealed; do not transport with strong acids.

SECTION 15: Regulatory Information

- Complies with GHS, REACH, TSCA, FDA (GRAS, food additive E501ii), GB 1886.25-2021 (China food standard).
- Not classified as a hazardous chemical; no EU SVHC listing; approved for pharmaceutical/agricultural use.

SECTION 16: Other Information

- **Revision Date:** 16 FEB 2026
- This MSDS applies to industrial/food/pharmaceutical grade potassium bicarbonate (unified hazard profile).