



# 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, GB/T 17519, and GHS Standards)

### SECTION 1: Identification

#### 1.1 Product Identifiers

- Product Name: Sodium Bicarbonate (Food/Industrial Dual Grade)
- Product Number:NaHCO3-20260220
- Brand:TECHPURE
- CAS-No.:144-55-8
- Synonyms: Baking Soda; Sodium Hydrogen Carbonate; Bicarbonate of Soda

#### 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: Food leavening agent, pharmaceutical raw material, chemical synthesis, wastewater neutralization, flue gas desulfurization, laboratory reagent.
- Uses Advised Against: No special restricted uses; avoid use in high-precision electronic components (due to inorganic salt residues).

### SECTION 2: Hazards Identification

#### 2.1 GHS Classification

- Skin irritation (Category 2)
- Eye irritation (Category 2)
- 2.2 GHS Label Elements
- Hazard Pictogram: Irritant ( )
- Signal Word: Warning
- Hazard Statements: H315 (Causes skin irritation); H319 (Causes serious eye irritation)
- Precautionary Statements: P264 (Wash hands after handling); P280 (Wear protective gloves/eye protection); P305+P351+P338 (If in eyes: Rinse with water for several minutes)

### SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Pure substance
- Active Component: Sodium Bicarbonate (CAS 144-55-8)
- Concentration:  $\geq 99.5\%$
- Impurities:  $\leq 0.5\%$  (Moisture, chloride, sulfate, trace metals)

### SECTION 4: First Aid Measures



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- Inhaled: Move to fresh air; if coughing occurs, rinse mouth with water and rest; no medical treatment is needed for mild symptoms.
- Skin Contact: Remove contaminated clothing; rinse the affected area with running water for 5 minutes; mild irritation will subside on its own.
- Eye Contact: Hold eyes open and rinse continuously with plenty of running water for 10 minutes; remove contact lenses if worn; consult a doctor only if redness and swelling persist.
- Swallowed: Food grade is edible in small amounts; if excessive industrial grade is ingested, drink plenty of water (200-300 mL); do not induce vomiting; seek medical attention if abdominal discomfort occurs.

### SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Any fire extinguishing media (water spray, dry powder, CO<sub>2</sub>, foam) can be used.
- Special Hazards: Non-flammable, no combustion-supporting property; decomposes at high temperature to release non-toxic CO<sub>2</sub> and Na<sub>2</sub>CO<sub>3</sub>, no hazardous smoke.
- Advice for Firefighters: Wear standard fire-fighting protective equipment; cool the package with water spray to prevent high temperature decomposition if the fire is near the product.

### SECTION 6: Accidental Release Measures

- Personal Precautions: Wear dust mask (KN95) and nitrile rubber gloves for large powder spills; avoid dust inhalation.
- Environmental Precautions: Prevent large quantities of dissolved products from entering water bodies (slight pH increase, no serious pollution).
- Clean-Up Methods: Small spills: Sweep and collect directly into sealed containers; large spills: Transfer to collection containers, clean the site with a small amount of water (no neutralization required).

### SECTION 7: Handling and Storage

- Handling: Avoid dust generation during operation; seal the package after use to prevent moisture (slight moisture has no effect on performance).
- Storage: Cool, dry, well-ventilated warehouse ( $\leq 40^{\circ}\text{C}$ ); sealed storage, separate from acids, high temperature equipment and food raw materials (food grade).
- Incompatibilities: Strong acids (HCl, H<sub>2</sub>SO<sub>4</sub>), acidic salts, high temperature ( $> 50^{\circ}\text{C}$ ) environment.

### SECTION 8: Exposure Controls/Personal Protection

- PPE: Safety glasses and nitrile rubber gloves for industrial operation; no special PPE for food processing (hand washing after operation).
- Exposure Limits: TWA (8h): 10 mg/m<sup>3</sup> (OSHA, dust); STEL (15min): 20 mg/m<sup>3</sup> (OSHA, dust).
- Engineering Controls: Local exhaust ventilation for large-scale powder handling to reduce dust concentration.

### SECTION 9: Physical and Chemical Properties

- Physical State: Solid (fine crystalline powder); Color: White; Odor: Odorless; Taste: Slightly salty

- Decomposition Temperature: > 50°C (releases CO<sub>2</sub>); Melting Point: Decomposes at 270°C;  
Density (20°C): 2.159 g/cm<sup>3</sup>
- Solubility (25°C): 9.6 g/100 mL water; Soluble in glycerol, insoluble in ethanol/ether
- Vapor Pressure (25°C): < 0.001 kPa; pH Value (5% aqueous solution): 8.5
- Hygroscopy: Non-hygroscopic; stable in normal humidity environment.
- Reaction with Acid: Rapid reaction to produce CO<sub>2</sub> gas (NaHCO<sub>3</sub> + H<sup>+</sup> = Na<sup>+</sup> + CO<sub>2</sub>↑ + H<sub>2</sub>O).

## SECTION 10: Stability and Reactivity

- Stability: Stable under normal temperature (≤ 40°C), pressure and storage conditions; no decomposition.
- Hazardous Reactions: Reacts with concentrated strong acids to produce a large amount of CO<sub>2</sub> gas (no splashing, mild reaction); decomposes at high temperature to release CO<sub>2</sub>.
- Decomposition Products: Na<sub>2</sub>CO<sub>3</sub> (non-toxic), CO<sub>2</sub> (non-toxic) and H<sub>2</sub>O (vapor) at > 50°C.

## SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD<sub>50</sub>): 4220 mg/kg; Inhalation (Rat, LC<sub>50</sub>): > 10000 mg/m<sup>3</sup> (4h)
- Skin/Eye Irritation: Mild skin irritation (Rabbit test, 24h); moderate eye irritation (Rabbit test, 72h); no sensitization.
- Chronic Toxicity: No chronic toxic effect for long-term normal contact; long-term inhalation of dust may cause mild respiratory tract irritation.

## SECTION 12: Ecological Information

- Aquatic Toxicity: Fish (Zebrafish, LC<sub>50</sub>): > 5000 mg/L (96h); Daphnia (EC<sub>50</sub>): > 3000 mg/L (48h) (no obvious toxicity).
- Biodegradability: Inorganic substance, non-biodegradable; no environmental pollution, can be naturally degraded in water bodies.
- Bioaccumulation: No bioaccumulation in aquatic/terrestrial organisms; mild alkaline, no harm to the ecosystem in small amounts.

## SECTION 13: Disposal Considerations

- Product Waste: Dispose as non-hazardous solid waste; can be recycled (e.g., neutralization of acidic wastewater, flue gas desulfurization).
- Packaging Waste: Food grade packaging is recycled as food contact waste; industrial packaging is rinsed with water and recycled or disposed as general waste.
- Disposal Requirements: Comply with local environmental protection regulations; no special disposal requirements.

## SECTION 14: Transport Information

- UN Number: None (Non-hazardous goods)
- UN Proper Shipping Name: Not dangerous goods
- Transport Hazard Class: None; Packaging Group: None
- Marine Pollutant: No



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- Transport Precautions: Food grade is transported in food contact packaging vehicles, avoid mixing with toxic and harmful substances; avoid high temperature and direct sunlight during transportation.

### **SECTION 15: Regulatory Information**

- National Regulations: Complies with GB 1887-2014 Food Grade Sodium Bicarbonate, Hazardous Chemical Safety Management Regulation (non-hazardous), Food Safety Law.
- International Regulations: GHS (Rev. 9); REACH (EU, listed); TSCA (US, listed); FDA (US, food grade approved, E260).

### **SECTION 16: Other Information**

- Revision Date:20 FEB 2026
- Disclaimer: This MSDS is based on current scientific and technical data; the supplier is not liable for improper use or non-compliance with food safety/industrial operation requirements.



纳维盈医化科技  
NEWAY SINOPHC TECH