

## Technical Data

# Sodium Bicarbonate

## USP Powdered No. 1

Meets **United States Pharmacopeia** and **Food Chemicals Codex** Specifications

Not Intended for Active Pharmaceutical Ingredient (API) Use

|                |                    |
|----------------|--------------------|
| <b>Formula</b> | NaHCO <sub>3</sub> |
|----------------|--------------------|

|                         |       |
|-------------------------|-------|
| <b>Molecular Weight</b> | 84.01 |
|-------------------------|-------|

### Chemical Abstract Services

|        |                               |
|--------|-------------------------------|
| Name   | Carbonic Acid Monosodium Salt |
| Number | 144-55-8                      |

### Particle Size Distribution

| Screen Size      | Cumulative % Retained |         |
|------------------|-----------------------|---------|
|                  | Minimum               | Maximum |
| USS 100 (150 µm) | 0                     | 2       |
| USS 200 (75 µm)  | 20                    | 45      |
| USS 325 (45 µm)  | 60                    | 100     |

### General Properties

|   |   |
|---|---|
| Typical bulk density, lb/ft <sup>3</sup> (kg/m <sup>3</sup> ) | 61 (978)  |
| Particle density, g/cm <sup>3</sup>                           | 2.22  |
| pH of 1% solution @ 25°C (77°F)                               | 8.3   |
| Appearance  | White crystalline powder  |
| Thermal decomposition   | Decomposes (without melting) into Na <sub>2</sub> CO <sub>3</sub> , H <sub>2</sub> O, and CO <sub>2</sub> |

### Specifications and Requirements

|                                | USP  | FCC  |
|--------------------------------|--|--|
| Assay (dry basis)              | 99.0% - 100.5%                                   | 99% minimum                                      |
| Insoluble substances           | Meets USP requirement                            | Passes FCC test                                  |
| Loss on drying                 | 0.25% max  | 0.25% max  |
| Ammonia                        | Meets USP requirement                            | Passes FCC test                                  |
| Arsenic                        | 2 ppm max  | 3 ppm max (as As)                                |
| Heavy metals                   | No USP requirement                               | 5 ppm max (as Pb)                                |
| Carbonate                      | Meets USP requirement                            | No FCC requirement                               |
| Chloride (as Cl <sup>-</sup> ) | 150 ppm max                                      | No FCC requirement                               |
| Sulfur Compounds               | 150 ppm max                                      | No FCC requirement                               |
| Identification                 | Responds to USP tests for sodium and bicarbonate | Positive in FCC tests for sodium and bicarbonate |

### Standard Containers

50 lb (22.7 kg) bags  
One ton super sacks  
Bulk hopper cars and trucks

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