



NATURAL SODA

Technical Specification

Sodium Bicarbonate Industrial #3 Fine Powder

Revision Date: 03/16/2015

CHEMICAL NAME: Sodium Bicarbonate
FORMULA: NaHCO₃
MOLECULAR WEIGHT: 84.01
CAS NAME: Carbonic acid monosodium salt
CAS NUMBER: 144-55-8
DESCRIPTION: White, crystalline powder
GRADE: Industrial No. 3 Fine Powder



PROPERTIES:

SCREEN ANALYSIS

Cumulative Percent Retained

| <u>U. S. Std. Sieve No.</u> | <u>Minimum</u> | <u>Maximum</u> |
|-----------------------------|----------------|----------------|
| - 325 | 75 | 100 |

BULK DENSITY: **poored**
 Typical range: 55 to 65 lbs. / ft³

THEORETICAL PROPERTIES:

The following properties are provided for convenience and reference only. These properties are not normally tested in the commercial product and no representation is made relative to the commercial product.

THERMAL DECOMPOSITION: Decomposes (without melting) into Na₂CO₃, H₂O, and CO₂
ALKALI EQUIVALENT: 1 lb. NaHCO₃ = 0.369 lb. Na₂O
CARBON DIOXIDE EQUIVALENT: 1 lb. NaHCO₃ = 0.524 lb. CO₂
SPECIFIC GRAVITY: 2.16 g / cm³
SPECIFIC HEAT @ 25 °C: 20.94 cal / deg mol
SOLUBILITY IN WATER @ 60 °C: 16.4 g / 100 g H₂O
SOLUBILITY IN OTHER SOLVENTS: Insoluble in alcohol
HEAT OF FORMATION: - 227.25 K cal / mol
HEAT OF SOLUTION: 3.81 K cal / mol
TASTE: Slightly alkaline

HANDLING:

Information concerning the handling and use of this product is provided in a material data sheet (MSDS). This MSDS must be fully read and understood prior to any exposure, handling, or use of the product.

SHELF LIFE: 2 years from manufacturing date

APPLICATIONS: Deodorant powders, dry fire extinguishers, rubber and plastics manufacturing

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