



# Technical Specification

## Sodium Bicarbonate Feed Grade

Revision Date: 03/03/2015

**CHEMICAL NAME:** Sodium Bicarbonate  
**FORMULA:** NaHCO<sub>3</sub>  
**MOLECULAR WEIGHT:** 84.01  
**CAS NAME:** Carbonic acid monosodium salt  
**CAS NUMBER:** 144-55-8  
**DESCRIPTION:** White, crystalline powder  
**GRADE:** Feed Grade

PROPERTIES:	SCREEN ANALYSIS:	Cumulative Percent Retained (Typical)		
		U. S. Std. Sieve No.	Minimum	Maximum
		+ 100	0	80
		+ 200	20	100
		+ 325	50	100

**BULK DENSITY:** poured – Typical range: 60 to 75 lbs. / ft<sup>3</sup>

**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 Na<sub>2</sub>CO<sub>3</sub>, H<sub>2</sub>O, and CO<sub>2</sub>  
**ALKALI EQUIVALENT:** 1 lb. NaHCO<sub>3</sub> = 0.369 lb. Na<sub>2</sub>O  
**CARBON DIOXIDE EQUIVALENT:** 1 lb. NaHCO<sub>3</sub> = 0.524 lb. CO<sub>2</sub>  
**SPECIFIC GRAVITY:** 2.16 g / cm<sup>3</sup>  
**SPECIFIC HEAT @ 25 °C:** 20.94 cal / deg mol  
**SOLUBILITY IN WATER @ 60 °C:** 16.4 g / 100 g H<sub>2</sub>O  
**SOLUBILITY IN OTHER SOLVENTS:** Insoluble in alcohol  
**HEAT OF FORMATION:** - 227.25 K cal / mol  
**HEAT OF SOLUTION:** 3.81 K cal / mol  
**SODIUM (Na):** 27.1 % Minimum  
**TASTE:** Slightly alkaline

**PACKAGING:**  
Multi-wall Paper Bags: 50 lb and 25 kg  
Super sacks: 2000 lb, 2450 lb, and 1000 kg  
Bulk Loads  
**SHELF LIFE:** 2 years from manufacturing date

**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.

**APPLICATIONS:** Animal feed  
**Recommended Dosage:** 1 KG/1 MT

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