



TECHNICAL INFORMATION

SODIUM BICARBONATE NO. 1 TFF FOOD GRADE

Revised
December, 2008

CHEMICAL NAME:	Sodium Bicarbonate
FORMULA:	NaHCO ₃
MOLECULAR WEIGHT:	84.01
CAS NAME:	Carbonic acid monosodium salt
CAS NUMBER:	144-55-8
DESCRIPTION:	White, crystalline powder
GRADE:	No. 1 TFF Food Grade (with Tricalcium phosphate added)

SCREEN ANALYSIS:		
Cumulative Percent Retained		
U. S. Std. Sieve No.	Minimum	Maximum
+ 100	0	2
+ 200	20	50
+ 325	60	100

BULK DENSITY: poured
Typical range: 60 to 75 lbs. / ft³

SPECIFICATIONS AND REQUIREMENTS

Food Chemical Codex (FCC)

Assay (dry basis)	99% min
Insoluble substances	Passes FCC test
Loss on drying	0.25% max
Ammonia	Passes FCC test
Arsenic	
Heavy metals	2 ppm (as Pb) max
Carbonates	
Chloride (as Cl)	
Limit of Sulfur Compound (as SO ₄)	
Identification	Responds in FCC tests for Sodium and Bicarbonate
Free Flowing Agent	0.5 % +/- 0.2%



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

PACKAGING:

Multi-wall Paper Bags: 50 lbs. and 25 kg.
Super sacks: 2000 lbs. and 2450 lbs.

Color Code: ORANGE

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: Baking mixes, fire extinguishers, self-rising flour, sponge rubber and plastics

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