



# TECHNICAL INFORMATION

## Sodium Bicarbonate U.S.P. Grade #2 Fine Granular

Revision Date: June 26, 2018

**Chemical Name:** Sodium Bicarbonate  
**Country Of Origin:** United States  
**Origin:** Nahcolite  
**Formula:**  $\text{NaHCO}_3$   
**Molecular Weight:** 84.01  
**CAS Name & Number:** Sodium Hydrogen Carbonate/144-55-8  
**E Number:** 500(ii)  
**Description:** White, Crystalline Powder  
**Grade:** USP Grade # 2 Fine Granular

### Screen Analysis

#### Cumulative Percent Retained

U. S. Std. Sieve No.	Minimum	Maximum
+80	0	1
+100	0	5
+200	70	100
+325	90	100

### Bulk Density

**Poured** Typical Range: 62 - 72 lbs / ft<sup>3</sup>

### Meets The Following Food Grade Specifications

	United States Pharmacopoeia	Food Chemical Codex (FCC)	Other
Assay	99.0% - 100.5%	99.0% - 100.5%	---
pH (3% solution)	---	---	7.8 - 8.5
Insolubles (Clarity)	Clear Solution	Clear Solution	---
Moisture	0.25% Max	0.25% Max	---
Ammonia	20 PPM Max	Passes Smell Test	---
Arsenic	2 PPM Max	---	---
Heavy Metals	---	---	5 PPM Max
Lead	---	2 PPM Max	---
Cadmium	---	---	1 PPM Max
Copper	---	---	1 PPM Max
Calcium	---	---	100 PPM Max
Iron	---	---	2 PPM Max
Limit of Sulfur	150 PPM Max	---	---
Chloride	150 PPM Max	---	---
Normal Carbonate	Passes USP Test	---	---
Identification	Responds to Test	Responds to Test	---

**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  $\text{Na}_2\text{CO}_3$ ,  $\text{H}_2\text{O}$ , and  $\text{CO}_2$

**Alkali Equivalent:** 1 lb.  $\text{NaHCO}_3$  = 0.369 lb.  $\text{Na}_2\text{O}$

**Carbon Dioxide Equivalent:** 1 lb.  $\text{NaHCO}_3$  = 0.524 lb.  $\text{CO}_2$

**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  $\text{H}_2\text{O}$

**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:** 25 kg, 50 lb

**Super Sacks:** 500 kg, 1000 kg, 2000 lb, 2450 lb

**Bulk:** Truck

### Shelf Life:

2 years from manufacturing date.

### Handling:

Information concerning the handling and use of this product is provided in a Safety Data Sheet (SDS). This SDS must be fully read and understood prior to any exposure, handling, or use of the product. It is the customer's responsibility to adhere to all handling, storage, and use guidelines.

### Applications:

Most commonly used in food, personal care, home care, pharmaceuticals (excipient use only).



Certified to NSF/ANSI 60

The information herein is believed to be reliable. Natural Soda LLC makes no claims or warranty, expressed or implied, as to stability or performance of its sodium bicarbonate when used in combination with other materials or in specific applications or processes.