



TECHNICAL INFORMATION

Sodium Bicarbonate U.S.P. Grade #1 Powder

Revision Date: February 1, 2024

Chemical Name: Sodium Bicarbonate
Country Of Origin: United States
Origin: Nahcolite
Formula: NaHCO₃
Molecular Weight: 84.01
CAS Name & Number: Sodium Hydrogen Carbonate/144-55-8
E Number: 500(ii)
Description: White, Crystalline Powder
Grade: USP Grade # 1 Powder

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: 65 - 75 lbs / ft³

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	---
Aluminum	---	---	2 ppm Max
Ammonia	Conforms*	Conforms*	---
Arsenic	2 ppm Max	---	---
Lead	---	2 ppm Max	---
Cadmium	---	---	1 ppm Max
Copper	---	---	1 ppm Max
Iron	---	---	5 ppm Max
Mercury	1 ppm Max	---	---
Limit of Sulfur	150 ppm Max	---	---
Chloride	150 ppm Max	---	---
Normal Carbonate	Passes USP Test	---	---
Identification	Responds to Test	Responds to Test	---

*Ammonia is not used in the Natural Soda manufacturing process. Controlled handling and storage of product ensures ammonia will not exceed USP limit. Absence of ammonia is confirmed on each lot via the FCC olfactory 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 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



Certified to
NSF/ANSI/CAN 60

Packaging:

Multi-wall Paper Bags: 25 kg, 50 lb

Bulk 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., This product is intended for further manufacturing, reprocessing and repackaging. It is not intended for use in hemodialysis or as an active pharmaceutical ingredient.

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.