

**Technical Data** 

## **Sodium Bicarbonate**

## Pharma Grade No. 2

Meets United States Pharmacopeia and Food Chemicals Codex Specifications

	NaHCO₃	
Molecular Weight	84.01	
Chemical Abstract Services		
Name	Carbonic Acid Monosodium Salt	
Number	144-55-8	
Particle Size Distribution		
	Cumulative % Retained	
Caraan Sina	Minimum	Maximum
Screen Size	0	4
USS 80 (180 μm)	0	1
USS 100 (150 μm)	0	2
USS 200 (75 μm)	70	100
USS 325 (45 μm)	90	100
General Properties		
Typical bulk density, lb/ft3 (kg/m3)	66 (1058)	
Particle density, g/cm <sup>3</sup>	2.22	
pH of 1% solution @ 25°C (77°F)	8.3	
Appearance	White crystalline powder	
Thermal decomposition	Decomposes (without melting)	into Na <sub>2</sub> CO <sub>3</sub> , H <sub>2</sub> O, and CO <sub>2</sub>
Specifications and Requirements		
Specifications and Requirements	USP	FCC
Assay (dry basis)	<b>USP</b> 99.0% - 100.5%	FCC 99% minimum
	99.0% - 100.5% Meets USP requirement	
Assay (dry basis) Insoluble substances Loss on drying	99.0% - 100.5% Meets USP requirement 0.25% max	99% minimum Passes FCC test 0.25% max
Assay (dry basis) Insoluble substances Loss on drying Ammonia	99.0% - 100.5%  Meets USP requirement  0.25% max  Meets USP requirement	99% minimum Passes FCC test 0.25% max Passes FCC test
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As)
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb)
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max  Meets USP requirement	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate Chloride (as Cl <sup>-</sup> )	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max Meets USP requirement 150 ppm max	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement No FCC requirement
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate Chloride (as Cl <sup>-</sup> ) Sulfur Compounds	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max Meets USP requirement 150 ppm max 150 ppm max	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement No FCC requirement No FCC requirement
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate Chloride (as Cl <sup>-</sup> ) Sulfur Compounds Organic volatile impurities	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max Meets USP requirement 150 ppm max 150 ppm max Meets USP requirement	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement No FCC requirement No FCC requirement No FCC requirement
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate Chloride (as Cl <sup>-</sup> ) Sulfur Compounds	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max Meets USP requirement 150 ppm max 150 ppm max	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement No FCC requirement No FCC requirement
Assay (dry basis) Insoluble substances Loss on drying Ammonia Arsenic Heavy metals Carbonate Chloride (as Cl <sup>-</sup> ) Sulfur Compounds Organic volatile impurities	99.0% - 100.5%  Meets USP requirement 0.25% max  Meets USP requirement 2 ppm max 5 ppm max Meets USP requirement 150 ppm max 150 ppm max Meets USP requirement Responds to USP tests	99% minimum Passes FCC test 0.25% max Passes FCC test 3 ppm max (as As) 5 ppm max (as Pb) No FCC requirement No FCC requirement No FCC requirement No FCC requirement Positive in FCC tests for

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