



Technical data

Sodium Bicarbonate

USP Powdered No. 1

Meets United States Pharmacopeia and Food Chemicals Codex Specifications

Formula	NaHCO ₃	
Molecular weight	84.01	
Chemical Abstract Services		
Name	Carbonic Acid Monosodium Salt	
Number	144-55-8	
Particle size distribution		
Screen size	Cumulative % Retained	Maximum
	Minimum	
USS 100 (150 microns)	0	2
USS 200 (75 microns)	20	50
USS 325 (45 microns)	60	100
General properties		
Bulk density, lb/ft ³ (kg/m ³)	64 (1025)	
Particle density, g/cm ³	2.22	
pH of 1% solution @ 25°C (77°F)	8.3	
Appearance	White crystalline powder	
Taste	Slightly alkaline	
Thermal decomposition	Decomposes (without melting) into Na ₂ CO ₃ , H ₂ O, and CO ₂ .	

Specifications and Requirements*

	U.S.P.	F.C.C.
Assay (dry basis)	99.0%-100.5%	99% minimum
Insoluble substances	Meets USP test	Passes FCC test
Loss on drying	0.25% max	0.25% max
Ammonia	Meets USP test	Passes FCC test
Arsenic	2 ppm max	3 ppm max (as As)
Heavy metals	5 ppm max	5 ppm max (as Pb)
Carbonate	Meets USP test	No FCC requirement
Chloride (as Cl ⁻)	150 ppm max	No FCC requirement
Sulfate (as SO ₄ ⁻²)	150 ppm max	No FCC requirement
Identification	Responds to USP tests for sodium and bicarbonate.	Positive in FCC tests for sodium and bicarbonate.

* FMC sodium bicarbonate meets the proposed USP requirements for Organic Volatile Impurities.

Standard containers

50 lb (22.7 kg) bags
100 lb (45.4 kg) bags
Bulk hopper trucks
Bulk hopper cars
One ton super saks

Uses

Cake mixes; cookies, crackers, candies, and brownies;
doughs and batters; beverages; chemical manufacture;
dentifrices; effervescent tablets; explosives manufacture;
food colors and conditioners; pharmaceuticals;
photographic chemicals; potable water treatment;
textiles processing.

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