

SPECIFICATION SODIUM BICARBONATE USP #1 POWDER

The following specification is the latest revision (as at 23 Jul 2024) and supersedes all previous specifications for this product code.

Specification Details					
Product Code	xxxxxxx	CAS Number	144-55-8	Shelf Life	730 Day
Product	Sodium Bicarbonate USP #1 Powder				
Pack Size	25 kg net Bags				
Customer Name	The Salt Box International Pty Ltd				
Revision	13 (on 27/04/2023)	Std. Compliance	USP		
Authorised By	D Quality Assurance Manager	Notes	Removed "dry basis" from Assay description, no changes to any value.		

Specifications				
Description	Unit	Typical	Guaranteed	Method
Chemical Name: Sodium Bicarbonate				
Formula: NaHCO ₃				
Molecular Weight: 84.01				
Appearance: white crystalline powder				
Assay, Sodium Bicarbonate	%		99.0 - 100.5	USP
pH, 3% solution			7.8 - 8.5	pH Meter
Chloride	ppm		Max 150	USP <221>
Moisture	wt %		Max 0.25	USP <731> Loss on Drying
* Ammonia	ppm		Conforms	FCC Olfactory Test
** Cadmium	ppm		Max 1	Atomic Absorption
** Copper	ppm		Max 1	Atomic Absorption
** Insoluble			Passes Test	USP
** Iron	ppm		Max 5	Atomic Absorption
** Lead	ppm		Max 2	Atomic Absorption
*** Limit of Sulphur Compound	ppm		Max 150	USP
**** Aluminium	ppm		Max 2	ICP
**** Arsenic	ppm		Max 2	USP <211>
**** Identification			Passes Test	USP <191>
**** Mercury	ppm		Max 1	USP <232>
**** Normal Carbonate			Passes Test	USP
SCREEN ANALYSIS (Cumulative percent retained on U.S. Std Sieve)				
Retained on Sieve No. 100 (150 micron)	%		0.0 - 2.0	
Retained on Sieve No. 200 (75 micron)	%		20.0 - 50.0	
Retained on Sieve No. 325 (45 micron)	%		60.0 - 100.0	
Bulk density - poured	lbs/ft ³	65 - 75	To be reported	

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Description	Unit	Typical	Guaranteed	Method
Total Alkalinity as Na ₂ O		1 lb. NaHCO ₃ = 0.369 lb. Na ₂ O		
Specific gravity	g/cm ³	2.16		
Solubility in water @ 60 deg C	g/100g H ₂ O	16.4		
Solubility in other solvents		insoluble in alcohol		
Taste: slightly alkaline				
Conforms to Current USP			Conforms	
* 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				
** Tested daily				
*** Tested weekly				
**** Tested Quarterly				