

SPECIFICATION

Product Name: Sodium Bicarbonate Injectable BP Grade
Chemical Formula: NaHCO_3
CAS Number: 144-55-8
Molecular Weight: 84.01 g/mol
Appearance: White crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification			
Test A	-	Complies	As per BP
Test B	-	Complies	Gives reaction of carbonates and bicarbonates.
Test C	-	Complies	Solution S gives reaction (a) of sodium.
Appearance of solution	-	Complies	Solution S is clear and colourless.
Carbonates	-	8.21	The PH of freshly prepared solution S is not greater than 8.6.
Chlorides	PPM	Complies	Max. 150 PPM
Sulfates	PPM	Complies	Max. 150 PPM
Ammonium	PPM	Complies	NMT 20 PPM
Arsenic	PPM	Complies	Max. 2 PPM, determined on 0.5g
Calcium	PPM	Complies	Max. 100 PPM
Iron	PPM	Complies	Max. 20 PPM
Assay	%	99.74%	99.0% - 101.0%

Bacterial endotoxins	-	Complies	Less than 1.7 IU per ml
----------------------	---	----------	-------------------------

Physical Properties

- Solubility: Soluble in water. Insoluble in ethanol. Insoluble in acetone.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
 - Storage Conditions: Store in a cool, dry place at 15–25°C. Protect from moisture, excessive heat, and direct sunlight. Keep the container tightly closed in the original, properly labeled container to maintain pharmaceutical quality. Avoid contamination and store in accordance with Good Manufacturing Practice (GMP) requirements for materials intended for sterile injectable formulations.

Applications

- Use: Widely used in the manufacture of sterile intravenous sodium bicarbonate injections. It serves as an alkalinizing agent for the treatment of metabolic acidosis, assists in the management of certain drug overdoses (when clinically indicated), promotes urinary alkalization, and is used during advanced cardiac life support (ACLS) in selected situations under medical supervision. It is also used as a buffering agent and pH adjuster in pharmaceutical injectable formulations.
 - Dosage: Depends on the clinical indication, patient's age, body weight, acid–base status, serum electrolyte levels, and blood gas results. It should only be administered by qualified healthcare professionals with appropriate clinical monitoring.

Packaging

- Standard Packing: 25 Kgs woven pp bag with inner liner or as per customer requirement.
 - Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.
 * Specifications are based on the manufacturer's provided specifications.