

SPECIFICATION

Product Name: Sodium Bicarbonate Injectable IP Grade
Chemical Formula: NaHCO ₃
CAS Number: 144-55-8
Molecular Weight: 81.01 g/mol
Appearance: White or almost white crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification Test A	-	Complies	A. On heating, a gas is evolved and solution becomes red.
Test B	-	Complies	B. It gives reaction A of bicarbonates.
Test C	-	Complies	C. Solution A gives the reactions of sodium salt.
Appearance of solution	-	Complies	Solution A is clear and colourless.
Arsenic	PPM	Complies	NMT 2 PPM
Calcium	-	Complies	A 2.0 per cent w/v solution, when boiled for 5 minutes, is clear.
Heavy metals	PPM	Complies	NMT 5 PPM
Chloride	PPM	Complies	NMT 200 PPM
Sulphates	PPM	Complies	NMT 150 PPM
Iron	PPM	Complies	NMT 20 PPM
Carbonate	-	Complies	pH of solution A, when freshly prepared, not more than 8.6.
Assay	%	99.50%	99.0% and NMT 101.0%

pH	-	8.34	7.0 to 8.5
Bacterial endotoxins	-	Complies	NMT 1.7 endotoxin units 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 15–30°C. Protect from excessive heat, moisture, and direct sunlight. Keep the container tightly closed in the original, properly labeled container. Store away from strong acids and incompatible materials. If supplied as a sterile injectable product, do not freeze, maintain container integrity, and store according to the manufacturer's labeled storage conditions to preserve sterility, potency, and stability.

Applications

- Use: Widely used as a sterile alkalizing agent in intravenous pharmaceutical preparations. It is indicated for the treatment of severe metabolic acidosis, hyperkalemia (as part of combination therapy), and for urinary alkalinization in selected poisonings or conditions where increasing urine pH is beneficial. It is also used during cardiopulmonary resuscitation (CPR) in specific clinical situations and in the management of certain drug overdoses (e.g., tricyclic antidepressant toxicity) under appropriate medical supervision.
 - Dosage: Depends on the patient's age, body weight, acid–base status, serum electrolytes, and the underlying clinical condition.

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.