

SPECIFICATION

Product Name: Sodium Bicarbonate IP Grade
Chemical Formula: NaHCO ₃
CAS Number: 144-55-8
Molecular Weight: 84.007 g/mol
Appearance: White or almost white crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification			
(A) Chemical Rotation	-	Complies	A. When gas is evolved pale pink colour became red.
(B) Reaction of bicarbonate	-	Complies	B. It gives reaction of bicarbonates.
(C) Reaction of sodium	-	Complies	C. It gives reaction of sodium.
Appearance of solution (5% w/v solution)	-	Complies	Solution is clear and colourless.
pH of 5% w/v solution	-	8.09	NMT 8.60
Chloride	PPM	Complies	NMT 200 PPM
Sulfates	PPM	Complies	NMT 150 PPM
Heavy metals	PPM	Complies	NMT 5 PPM
Arsenic	PPM	Complies	NMT 2 PPM
Calcium	-	Complies	Solution should be remains clear.
Iron	PPM	Complies	NMT 20 PPM
Assay	%	99.63%	99.0% to 101.0% of NaHCO ₃

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, and well-ventilated place at 15–30°C. Protect from moisture, humidity, and direct sunlight, as sodium bicarbonate readily absorbs moisture and may decompose on prolonged exposure to heat. Keep the container tightly closed in the original, properly labeled container and store away from strong acids and incompatible materials to maintain product quality and stability.

Applications

- Use: Widely used as an antacid, buffering agent, pH adjuster, alkalizing agent, and effervescent agent in pharmaceutical, nutraceutical, and food formulations. It helps neutralize excess stomach acid, maintain formulation pH, enhance effervescence, and regulate acid–base balance. It is commonly incorporated into tablets, capsules, effervescent tablets and powders, oral solutions, oral care products, and dietary supplements.
- Dosage: Depends on the therapeutic indication, patient age, clinical condition, and formulation.

Packaging

- Standard Packing: 50 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.