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TECHNICAL DATA SHEET

Sodium Bicarbonate

Food Grade Buffering Agent / Feed Grade Sodium Source / Leavening and Processing Aid

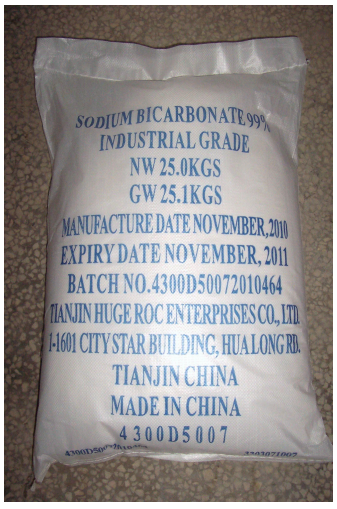
Product Description

Sodium Bicarbonate is supplied as a white crystalline powder or fine crystal with a mild saline taste and weak alkalinity in aqueous solution. The product is readily soluble in water, insoluble in alcohol, and decomposes gradually under heat or prolonged exposure to humid air. For food applications, it is commonly used as a leavening agent, acidity regulator, processing aid, and carbon dioxide releasing ingredient. For feed applications, it is used as a sodium source and buffering agent to support ration stability, rumen function, electrolyte balance, and overall feed formulation flexibility. The product should be stored in clean, dry, well-ventilated conditions to maintain flowability, purity, and stable performance during handling and use.

1. Product Identification

Product Name	Sodium Bicarbonate
Chemical Name	Sodium hydrogen carbonate / Sodium bicarbonate
CAS No.	144-55-8
Molecular Formula	NaHCO3
Molecular Weight	84.01 g/mol
HS Code	283630
Grade	Food Grade / Feed Grade
Appearance	White powder or tiny crystals
Primary Function	Food leavening and acidity regulation; feed buffering and sodium supplementation

UNIT:MT	COVERED THE PALLETS	WITHOUT PALLETS
20'FCL	27MT	27MT
40'FCL	27MT	27MT
PACKING	25KGS/BAG	1350KGS/BAG







2. Typical Specification

Items	Standard
Total Alkali Content (as NaHCO3), mass fraction	≥99.0%
Drying Loss, mass fraction	≤0.4%
pH of Aqueous Solution (10 g/L)	≤8.6
Arsenic (As), mass fraction	≤0.0001%
Heavy Metals (as Pb), mass fraction	≤0.0003%
Ammonium Salt	Passes test
Clarity of Solution	Passes test
Whiteness	≥93%

3. Applications and Benefits

Food leavening and carbon dioxide release: Sodium Bicarbonate is widely used in bakery, biscuit, cake, instant food, and other processed food systems where controlled carbon dioxide release is required. In combination with suitable acidic components, it helps produce porous texture, improved volume, and stable product appearance during baking or processing. It may also function as an acidity regulator in selected formulations, helping maintain a suitable pH range and sensory profile. For food use, dosage should be designed according to the target recipe, applicable food additive standards, and the customer's internal quality control requirements.

Acidity regulation and processing flexibility: As a mild alkaline ingredient, Sodium Bicarbonate can help adjust acidity, improve process stability, and support formulation consistency in appropriate food and industrial food-processing applications. It dissolves readily in water and is easy to dose, blend, and handle in dry premix systems. Its white crystalline appearance and high whiteness make it suitable for applications where finished product color and cleanliness are important. Proper moisture protection is recommended because the material may gradually decompose or lose flowability when exposed to humid air for extended periods.

Rumen buffering support in ruminant feed: In cattle, sheep, and dairy rations, Sodium Bicarbonate is commonly used as a buffering agent to help stabilize rumen pH when high-concentrate diets, rapidly fermentable carbohydrates, or heat stress conditions increase acid load. It supports normal feed intake, rumen fermentation, and milk or growth performance by helping maintain a more favorable digestive environment. It can be incorporated into premixes, total mixed rations, mineral blends, or complete feed according to formulation objectives. Inclusion level should be determined by nutritionists based on diet composition, animal stage, and local feed regulations.

Electrolyte and sodium supplementation in feed: Sodium Bicarbonate provides a practical sodium source and contributes bicarbonate ions that may support acid-base balance in livestock and poultry nutrition. It is especially useful in formulations where sodium contribution, palatability, and digestive stability need to be considered together. Compared with highly caustic alkaline materials, it is easier to handle and more compatible with routine feed manufacturing operations. It should be evenly distributed during mixing and protected from excessive moisture during storage so that the ingredient maintains consistent quality and performs reliably in finished feed.

4.Handling and Safety

Avoid inhalation of dust during handling. Use appropriate ventilation, dust mask, gloves, and eye protection where necessary. Wash hands after use and follow good food and feed hygiene practices. The product should be used according to applicable food safety, feed safety, and local regulatory requirements.