

TECHNICAL DATA SHEET

Sodium Butyrate

Feed Grade Intestinal Health Support Additive for Animal and Aquaculture Feed

Product Description

Sodium Butyrate is a feed grade organic acid salt supplied as a white to off-white powder or granule. It is widely used in compound feed, premixes, and aquaculture feed to provide a stable source of butyric acid activity. Compared with free butyric acid, Sodium Butyrate is easier to handle, has lower volatility, and offers better compatibility in feed manufacturing. In animal nutrition, it is valued for supporting intestinal integrity, feed utilization, and stable performance under intensive production conditions. The product can be used in poultry, swine, ruminant, and aquatic feed systems, especially where gut health, palatability, and feed hygiene are important formulation targets.

1. Product Identification

Product Name	Sodium Butyrate
Chemical Name	Sodium butanoate / Sodium butyrate
CAS No.	156-54-7
Molecular Formula	C ₄ H ₇ NaO ₂
Molecular Weight	110.09 g/mol
HS CODE	291560
Grade	Feed Grade
Appearance	White to off-white powder or granule
Primary Function	Organic acid salt for intestinal health support and feed application

UNIT/MT & Grade A	30 MESH	16 MESH	POWDER
20'FCL Covered pallets	16.2	17.3	8
40'FCL Covered pallet	28	28	16



2. Typical Specification

Items	National Standard				
	GRADE A	GRADE B	GRADE C	GRADE D	GRADE E
Appearance	White Powder(16mesh,30mesh),Needles,Spherical,no caking				
Sodium Butyrate (%)	98.0 – 101.0	≥90	≥70	≥50	≥30
Clarity of solution	≤ No.3 turbidity standard liquid				
pH (1.0g/50ml water)	8.0-10.0	7.0-10.0	8.0-10.0		
Drying Loss (%)	≤ 2.0	≤ 5.0			
Heavy Metals (Pb) (%)	≤ 0.001				
Arsenic (As) (%)	≤ 0.0002				

3. Applications and Benefits

Support for intestinal development and gut barrier function

Sodium Butyrate is used in feed as a practical source of butyrate activity, which is closely associated with intestinal epithelial nutrition and normal gut development. In young animals and aquatic species, the digestive system is often sensitive to diet changes, stocking density, and environmental stress. By supplying butyrate in a stable salt form, the ingredient can support intestinal structure, villus development, and barrier integrity as part of a balanced feed program. It is especially useful in formulas designed to maintain digestive comfort and consistent nutrient absorption. When combined with suitable protein sources, energy ingredients, minerals, vitamins, and good feed management, Sodium Butyrate helps nutritionists build diets that focus on gut resilience rather than relying only on growth-promoting inputs.

Feed efficiency and performance support in livestock feed

In poultry, swine, and ruminant nutrition, Sodium Butyrate can be included in premixes, concentrates, and complete feed to support feed conversion and stable production performance. A healthy digestive tract helps animals use nutrients more efficiently, which is important when feed cost, ingredient variability, and production pressure are high. Sodium Butyrate may contribute to improved nutrient utilization by supporting normal intestinal function and a favorable gut environment. It is suitable for starter feed, grower feed, and high-performance formulas where digestive stability is a key target. The product is easy to mix with common feed ingredients and can be used together with acidifiers, enzymes, probiotics, phytogenic additives, and mineral premixes according to formulation objectives and local regulatory requirements.

Application in aquaculture feed for fish and shrimp

Sodium Butyrate is also suitable for aquaculture feed, including fish and shrimp diets, where intestinal health and feed utilization are important for stable growth. Aquatic animals are frequently exposed to changes in water quality, feeding intensity, and microbial pressure, so a well-designed feed formula should support both digestion and

overall robustness. Sodium Butyrate can be used in extruded floating feed, sinking pellets, and shrimp feed when properly blended and processed. It helps formulate functional aquafeed aimed at maintaining gut condition, supporting nutrient absorption, and improving tolerance to production stress. For aquaculture use, attention should be paid to particle size, coating or carrier form, mixing uniformity, and compatibility with heat treatment to maintain consistent distribution in the final feed.

Feed hygiene, palatability, and formulation flexibility

As an organic acid salt, Sodium Butyrate offers practical handling advantages compared with free butyric acid, including easier storage, lower volatility, and better convenience during feed production. It can be incorporated into premixes or complete feed without the strong handling difficulties associated with liquid acids. In compound feed systems, it provides formulation flexibility for programs focused on gut health, feed hygiene, and reduced nutritional stress. Granular or coated forms may be selected when lower odor, improved flowability, or more controlled release is required. Sodium Butyrate should be distributed evenly during mixing and protected from excessive moisture during storage. Proper packaging, clean production conditions, and quality control are important to ensure the ingredient performs consistently in finished feed.

4. Packaging, Storage, and Shelf Life

Standard packaging: 25 kg net kraft paper bag with PE liner, aluminum foil bag, or according to customer requirement.

Storage: Keep tightly closed in a cool, dry, clean, and well-ventilated warehouse. Avoid moisture, heat, direct sunlight, strong oxidizing agents, and contamination with odorous or incompatible materials.

Shelf life: 24 months from production date under recommended storage conditions in original unopened packaging.

5. 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 industrial hygiene practices. The product is intended for feed use only and should be handled according to local feed safety regulations and the customer's quality management system.