Jainex Speciality Chemical

SODIUM BUTYRATE

About Us

Jainex Speciality Chemical is a partnership firm registered under the Partnership Act of 1932 in India.

At Jainex Speciality Chemical, we are dedicated to excellence in all aspects of our operations. By harnessing knowledge, creativity, innovation, and technology, we strive to provide superior consumer insights along with the highest quality products and services to our clients.

Established in 2005, our firm initially focused on the manufacturing and exporting of various butyrate salts, including calcium butyrate and sodium butyrate, to European markets. These products are widely recognized as effective animal feed supplements.

In 2015, we expanded our product line to include calcium propionate, a propionate salt utilized as a preservative in animal feed, notably effective in mitigating mycotoxin levels in feed materials.

Currently, Jainex Speciality Chemical employs innovative, customized technology for the hygienic manufacturing of all our products, under the supervision of industry experts. Our firm is accredited by several national and international quality standards, including FSSAI, WHO-GMP, HACCP, ISO 22000:2005, and FAMI-QS.

Today, Jainex Speciality Chemical is recognized as a leading manufacturer and exporter from India, esteemed for delivering high-quality products and services. Our unwavering commitment to customer satisfaction, characterized by adherence to quality standards and competitive pricing, has facilitated our significant success in both local and international markets. Looking forward, the company intends to continue innovating and expanding its product offerings by introducing a wider range of animal feed additives and preservatives.

SODIUM BUTYRATE (FEED GRADE)

Sodium Butyrate

Butyric acid is well-established for its critical role in enhancing intestinal integrity, which is vital for supporting healthy growth and overall well-being. However, its application is often hampered by the challenges presented by its strong and pungent odor in liquid form. To capitalize on the beneficial properties of butyric acid while mitigating these drawbacks, various salts—such as calcium, sodium, zinc, and other metallic derivatives—are employed as effective alternatives.

As a leading manufacturer in India, we prioritize hygienic production and high-quality raw materials to ensure efficacy and safety in our sodium butyrate products.

Why Choose Sodium Butyrate?

- It plays a crucial role in protecting and restoring intestinal health.
- It serves as an energy source for the intestinal villi.
- It promotes healthy microvilli growth.
- It increases the microvilli-to-crypt ratio, enhancing the regeneration of intestinal epithelial cells (villi) and improving nutrient digestibility, which ultimately boosts feed efficiency.
- It strengthens protection against pathogens by exhibiting antibacterial activity against a wide range of Gram-positive and Gram-negative bacteria, thereby stimulating the intestinal immune system.

Additionally, it functions as a toxin binder.

SODIUM BUTYRATE (FEED GRADE)

Reasons to Choose Sodium Butyrate from Jaines Speciality Chemical:

- Manufactured using advanced techniques in hygienic conditions
- Complies with international quality standards (HACCP, GMP, Feed Safety Assurance)
- Encapsulated in a stomach-stable matrix of fatty acids
- Dust-free granules (pearls/beads)
- Unique flavored options for enhanced benefits
- Delivers optimal results for all activities
- Free from animal bones and fats

Custom combinations, specifications, and concentrations available.

- **Range of Sodium Butyrate includes:**
  - Dry Sodium Butyrate
  - Dry & Flavoured Sodium Butyrate
  - Encapsulated (Coated) Sodium Butyrate
  - Encapsulated (Coated) & Flavoured Sodium Butyrate
  - Super Encapsulated (Coated) Sodium Butyrate
  - Super Encapsulated (Coated) & Flavoured Sodium Butyrate

Available in two physical forms: powder and granules (pearls/beads).

- **Advantages of Encapsulated Sodium Butyrate:**
- Reduced hygroscopicity compared to dry Sodium Butyrate, facilitating easier handling.
- Diminished pungent odor, enhancing usability in premixes or animal feed.
- Encapsulation inhibits interactions with other ingredients.
- Effectively delivers active butyrate content to both the small and large intestine.

Additionally, flavoring further aids in minimizing odor.

General Specifications*:

Sr. No.	Parameter	Specification
1	Appearance	Fine powder/ Fine granules
2	Colour	White to off white
3	Odour	Typical butyric acid smell / Flavoured
4	pH	7.0 -12.0
5	Moisture /water content (%w/w)**	Maximum 4.0%
6	Density	0.500 – 0.700 g/cc
7	Iron (Fe)	Maximum 100 ppm
8	Lead (Pb)	Maximum 30 ppm
9	Arsenic (As)	Maximum 2 ppm
10	Cadmium (Cd)	Maximum 2 ppm
11	Mercury (Hg)	Maximum 2 ppm
12	Fluoride (F-)	Maximum 30 ppm

Notes:
For more detailed specifications and technical data, please contact us.
* We can provide water content lower than 4.0%.

Here are some specific examples highlighting the advantages of Sodium Butyrate over Tributyrin in animal feed:

1. Gut Health and Microbiota:

- **Sodium Butyrate:** Known for its ability to improve gut health by enhancing the integrity of the intestinal lining and promoting beneficial gut microbiota. It has been shown to reduce Salmonella colonization in the ceca of broilers, leading to a healthier gut environment.

- **Tributyrin:** While also beneficial for gut health, Tributyrin's release mechanism relies on enzymatic hydrolysis in the small intestine, which may not be as effective in targeting specific gut segments like the ceca.

2. Growth Performance:

- **Sodium Butyrate:** Studies have demonstrated that Sodium Butyrate can significantly improve body weight gain and feed conversion ratios in broilers, making it a reliable choice for enhancing growth performance.

- **Tributyrin:** Although Tributyrin also improves growth performance, it may not always show a significant advantage over Sodium Butyrate in terms of body weight gain.

3. Cost and Application:

- **Sodium Butyrate:** Typically requires a coating process to ensure it reaches the lower gut, which can add to the cost. However, its direct benefits in gut health and performance often justify the investment.

- **Tributyrin**: Does not require a coating process, potentially reducing costs. However, its effectiveness can vary depending on the specific conditions and enzymatic activity in the animal's gut.

4. Anti-inflammatory Properties:

- **Sodium Butyrate:** Exhibits strong anti-inflammatory properties, which can help in reducing gut inflammation and improving overall animal health.

- **Tributyrin:** Also has anti-inflammatory effects but may not be as potent or targeted as Sodium Butyrate due to its different release mechanism.

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Sodium Butyrate is one of several short-chain fatty acids (SCFAs) used in animal nutrition, each with unique benefits. Here's a comparison of Sodium Butyrate with other common SCFAs like Acetate:

1. Gut Health and Integrity:

- **Sodium Butyrate:** Known for its potent effects on gut health, it enhances the integrity of the intestinal lining and promotes beneficial gut microbiota. It is particularly effective in reducing gut inflammation and improving barrier function.
- **Acetate:** While it also supports gut health, its primary role is as an energy source for peripheral tissues. It is less effective than butyrate in directly improving gut barrier function.

2. Anti-inflammatory Properties:

- **Sodium** Butyrate: Exhibits strong anti-inflammatory properties by inhibiting nuclear factor kappa B (NF-κB) and other pro-inflammatory pathways.
- **Acetate:** Has some anti-inflammatory effects but is generally less potent compared to butyrate.

3. Energy Source:

- **Sodium Butyrate:** Provides a direct energy source for colonocytes, which is crucial for maintaining gut health.
- **Acetate:** Primarily used as an energy source by peripheral tissues and is the most abundant SCFA produced in the gut.

Here are some additional examples of animal species that benefit from Sodium Butyrate supplementation:

1. Dairy Calves:

-Growth and Antioxidant Function: Supplementation with Sodium Butyrate in liquid feeds (milk or milk replacer) has been shown to improve growth performance and enhance antioxidant function in pre-weaned dairy calves.

2. Weaned Lambs:

-Stress Relief and Antioxidant Indicators: Sodium Butyrate supplementation can help relieve weaning stress and improve serum antioxidant indicators in weaned lambs.

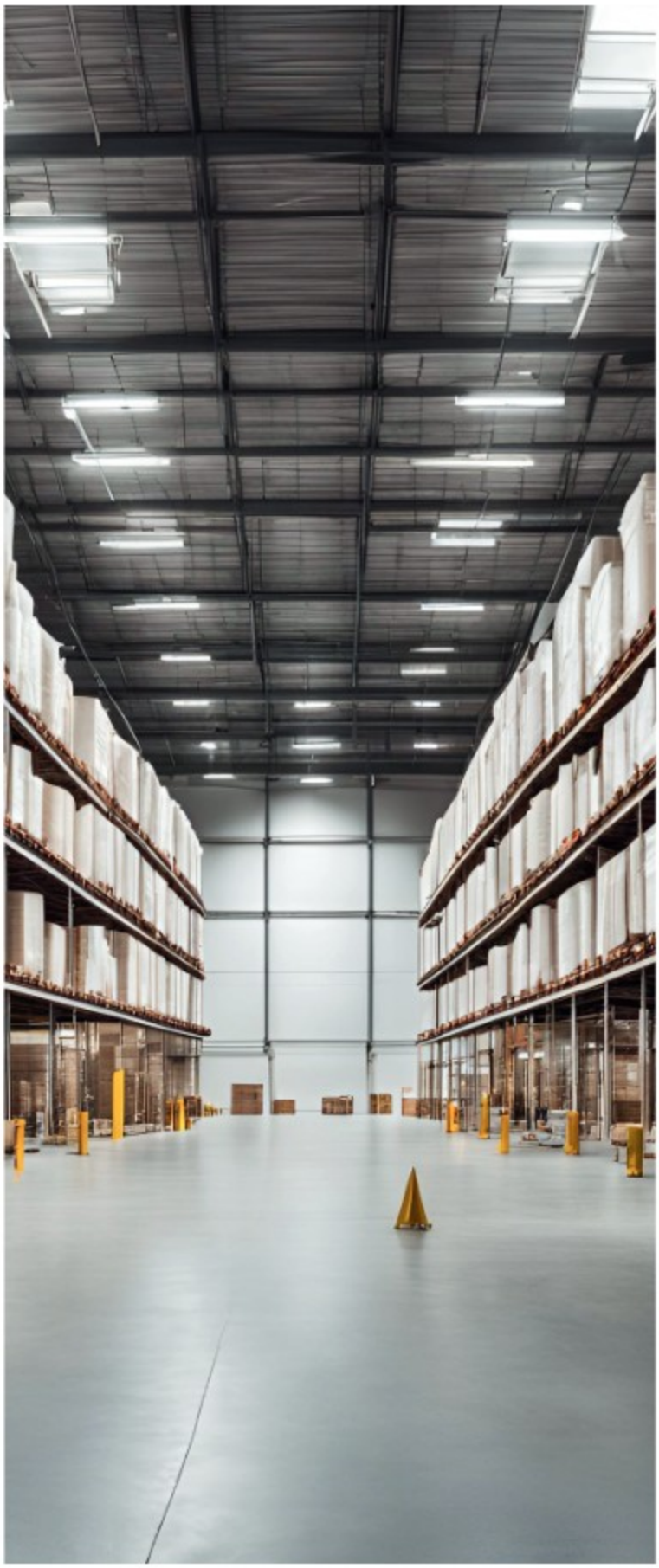
3. European Sea Bass:

-Growth Performance: Sodium Butyrate treatment has been found to maintain optimal growth parameters in European sea bass, indicating its beneficial effects on fish health and growth.

4. Broilers (Chickens):

-Gut Health and Growth: Sodium Butyrate improves the villus height to crypt depth ratio in the intestines of broilers, leading to better nutrient absorption and overall growth performance.

These examples demonstrate the versatility and effectiveness of Sodium Butyrate across different animal species, making it a valuable additive in animal nutrition.



PACKAGING DETAILS

25 Kg. LDPE Bag

STORAGE CONDITIONS: Store in a tightly sealed container in a cool, dry, and well-ventilated space.

Always use appropriate personal protective equipment, such as gloves and safety goggles, when handling this material.

In case of accidental contact, rinse affected areas with plenty of water and seek medical advice if necessary.

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Let's Connect: Discover how Jainex Speciality Chemical can improve your feed solutions and join the transformation!