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TECHNICAL DATA SHEET

Monobutyric Glyceride

Feed Grade Short-Chain Fatty Acid Ester for Animal and Aquaculture Feed

Product Description

Monobutyric Glyceride is a feed grade glyceride ester of butyric acid supplied as a colorless to light yellow transparent liquid. It is designed for use in compound feed, premixes, liquid feed systems, and aquaculture diets where stable butyrate delivery, feed hygiene, and digestive support are important formulation targets. Compared with free butyric acid, Monobutyric Glyceride offers improved handling, lower odor impact, and better formulation flexibility. The product can support intestinal environment management, nutrient utilization, and stable animal performance under modern production conditions. It is suitable for poultry, swine, ruminant, pet, and aquatic feed applications when used according to formulation objectives and local feed regulations.

1. Product Identification

Product Name	Monobutyric Glyceride
Chemical Name	Glycerol monobutyrate / Monobutyrin
CAS No.	557-25-5
Molecular Formula	C7H14O4
Molecular Weight	162.18 g/mol
HS CODE	291560
Grade	Feed grade
Appearance	Colorless to light yellow transparent liquid
Primary Function	Butyrate ester for intestinal health, feed hygiene support, and performance nutrition

UNIT:MT	1200KGS/DRUM
20'FCL	24
40'FCL	28

2. Typical Specification

Items	Standard
Appearance	Colorless to light yellow transparent liquid
Assay, %	>= 50.0
Glycerol Dibutyrate, %	<= 25.0
LOD, %	<= 0.2
Free butyric acid, %	<= 1.0
Tributyrin, %	<= 5.0

3. Applications and Benefits

Intestinal environment and digestive support

Monobutyric Glyceride is used in feed formulas to provide a stable butyrate source for intestinal environment management. Butyrate is commonly valued in animal nutrition for supporting gut epithelial function, intestinal barrier integrity, and a balanced digestive environment. In practical feed programs, this product may help maintain feed intake and performance during periods of dietary transition, weaning, environmental stress, or intensive production. Its esterified form can reduce the direct odor and handling limitations associated with free butyric acid, making it easier to incorporate into complete feed, premixes, or liquid systems. The product should be selected and dosed according to animal species, age, production stage, feed composition, and local regulatory requirements.

Feed hygiene and formulation flexibility

As a glyceride ester of butyric acid, Monobutyric Glyceride can be used as part of a broader feed hygiene and digestive support strategy. It is compatible with many common feed ingredients, including protein meals, grains, minerals, enzymes, probiotics, acidifiers, and functional additives, provided that the final formula is properly evaluated. The liquid physical form allows flexible use in premix processing, spraying systems, or feed blending where homogeneous distribution is required. Compared with free acid products, it is usually easier to handle during manufacturing and storage. For best results, the product should be mixed uniformly and used together with suitable moisture control, clean equipment, and good manufacturing practices.

Use in livestock feed for poultry, swine, and ruminants

Monobutyric Glyceride is suitable for poultry, swine, and ruminant feed applications where gut comfort, feed utilization, and stable production performance are important objectives. In young animals, it may be considered in formulas designed to support digestive adaptation and reduce performance fluctuation during critical stages. In poultry and swine production, it can be included in starter, grower, finisher, or breeder feed according to formulation targets. For ruminants, it may be used in nutritional programs that require digestive support ingredients compatible with the overall ration. Actual inclusion level should be confirmed by trial results, species requirements, diet composition, and local feed additive regulations before full-scale production.

Application in aquaculture and pet nutrition

The product can also be used in aquaculture feed and pet nutrition formulas where palatability, digestive support, and ingredient stability are important. Aquaculture feed production often requires additives that can tolerate processing, storage, and contact with moisture during feeding. Monobutyric Glyceride may be incorporated into extruded pellets, sinking pellets, floating feed, or premixes when the process is validated for uniform distribution and physical stability. In pet food and pet nutrition products, it may be used as a functional ingredient in formulas focused on digestive balance and overall feed quality. Attention should be paid to dosage, compatibility with coating systems, packaging, and storage conditions to maintain product performance.