

TECHNICAL DATA SHEET

Tributylin

Feed Grade Glycerol Tributyrates for Gut Health and Functional Animal Nutrition

Product Description

Tributylin, also known as Glycerol Tributyrates, is a feed grade butyric acid derivative supplied as either concentrated liquid or carrier-based powder according to product grade. It is designed for use in compound feed, premixes, milk replacers, and aquaculture feed as a functional ingredient for intestinal nutrition and feed performance support. Compared with free butyric acid or some common butyrate salts, Tributyrins offers a more stable esterified form and can gradually release butyric acid through enzymatic digestion. It is suitable for poultry, swine, ruminants, pet food, and aquatic feed applications where gut environment management, feed intake, intestinal integrity, and production stability are important formulation targets.

1. Product Identification

Product Name	Tributylin
Chemical Name	Glycerol Tributyrates / Glycerol Tributyrates
CAS No.	60-01-5
Molecular Formula	C ₁₅ H ₂₆ O ₆
HS CODE	291560
Molecular Weight	302.36 g/mol
Grade	Feed Grade
Appearance	Colorless to pale yellow transparent liquid or white/off-white powder
Primary Function	Functional butyric acid source for intestinal nutrition and feed performance support

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



2. Typical Specification

Items	Tributyryn 95	Tributyryn 60
Appearance	Colorless to pale yellow transparent liquid	White or off-white powder, no caking
Assay / Content (as tributyrin), %	≥95	≥60
Moisture, %	≤0.2	≤10.0
Lead (as Pb), mg/kg	<30	≤10
Total Arsenic (as As), mg/kg	≤10	≤2

3. Applications and Benefits

Functional butyric acid source for gut health support

Tributyryn is used in feed as an esterified source of butyric acid for supporting intestinal nutrition and gut environment management. After ingestion, it can be hydrolyzed by digestive enzymes to release butyric acid and glycerol, helping deliver butyrate activity within the digestive tract. Butyric acid is commonly valued in animal nutrition for its role in supporting intestinal epithelial condition, gut barrier function, and normal digestive performance. Tributyrin is suitable for programs focused on young animals, feed transition periods, high-density production, and stress conditions where stable intestinal function is important. It can be used together with organic acids, enzymes, probiotics, yeast products, minerals, vitamins, and balanced protein sources according to formulation objectives and local feed regulations.

Application in poultry and swine feed

Tributyryn can be incorporated into poultry and swine diets where intestinal development, feed intake, and production stability are important targets. In poultry feed, it may be used in broiler, layer, and breeder formulas as part of a gut health and performance support strategy. In swine nutrition, it is especially suitable for piglet and grower diets, including periods around weaning, feed change, or environmental stress. The product can help nutritionists design feed programs focused on digestive comfort, nutrient utilization, and consistent growth. Powder grades are convenient for premixes and complete feed, while liquid grades may be used where suitable dosing and mixing systems are available. Uniform blending and compatibility with other ingredients should be evaluated during formulation.

Use in ruminant, pet food, and specialty nutrition

Tributyryn can also be used in ruminant feed, pet food, and specialty animal nutrition products when a stable butyric acid derivative is required. In calf, lamb, or young ruminant nutrition, it may be considered in milk replacers, starter feeds, and functional premixes designed to support digestive adaptation and early growth. In pet food and treats, Tributyrin can be used as part of formulas focused on intestinal comfort, palatability, and nutritional support. The product should be selected according to target animal species, processing method, dosage form, and desired release characteristics. As with other functional additives, application should be combined with proper diet design, high-quality raw materials, and good manufacturing practice.

Application in aquaculture feed for fish and shrimp

Tributyryn is suitable for aquaculture feed applications, including fish and shrimp diets, where digestive efficiency, gut condition, and feed stability are important for intensive farming. Aquatic feeds often require good physical

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quality, water stability, and compatibility with extrusion or pelleting processes. Tributyrin can be used in functional aquafeed formulas designed to support intestinal nutrition and performance under high-density culture conditions. Powder grades are generally easier to include in premixes and dry feed blends, while liquid grades may be applied with appropriate mixing or coating technology. For aquaculture use, attention should be paid to particle size, heat exposure, binder compatibility, coating systems, and storage conditions to maintain uniform distribution and stable product quality.