

TECHNICAL DATA SHEET

Potassium Carbonate

Feed Grade Alkalinity Support and Potassium Source for Animal and Aquaculture Feed

Product Description

Potassium Carbonate is a high-purity inorganic potassium salt supplied as a white granular or powdered material for use in feed-related applications where alkalinity support, potassium nutrition, and formula buffering are required. In animal nutrition systems, it may be used in compound feed, premixes, mineral blends, and aquaculture feed according to formulation objectives and local regulations. The product provides a concentrated source of potassium and carbonate alkalinity, supporting electrolyte balance, dietary cation-anion adjustment, and stable processing characteristics in suitable feed formulas. It is particularly useful where formulators need a clean mineral ingredient with good solubility, low insoluble matter, controlled heavy metals, and consistent quality for livestock, poultry, ruminant, pet, and aquatic feed applications.

1. Product Identification

Product Name	Potassium Carbonate
Chemical Name	Potassium carbonate
CAS No.	584-08-7
Molecular Formula	K ₂ CO ₃
HS CODE	28364000
Molecular Weight	138.21 g/mol
Grade	Feed Grade
Appearance	White granule or powder
Primary Function	Alkalinity support, potassium source, electrolyte and buffering ingredient for feed formulation

UNIT:MT	Covered the pallets	Without Pallets
20'FCL	27	27
40'FCL	28	28
Packing	25KGS/BAG	1350KGS/BAG



2. Typical Specification

Items	Standard
Appearance	White granule or powder
Content, %	≥ 99.0
Heavy metals, as Pb, ppm	≤ 10
Arsenic, as As, ppm	≤ 2
Loss on ignition, %	≤ 0.60
Water insoluble matter, %	≤ 0.02
Iron, as Fe, ppm	≤ 10
Sulphur compound, as K ₂ SO ₄ , %	≤ 0.01
Chlorides, %	≤ 0.015
Mercury, as Hg, ppm	≤ 1

3. Applications and Benefits

Potassium and electrolyte support in animal feed

Potassium Carbonate can be used as a concentrated potassium source in feed programs where electrolyte balance and mineral supply are important nutritional targets. Potassium is an essential macro-mineral involved in osmotic balance, acid-base regulation, nerve transmission, and normal muscle function. In practical feed formulation, the product may be incorporated into mineral premixes, complete feed, or liquid-compatible systems according to species needs and the overall mineral matrix. It is especially relevant when diets contain raw materials with variable mineral profiles or when additional potassium is required to support stable intake and performance. The ingredient should be dosed based on professional formulation, animal category, production stage, and local feed regulations.

Alkalinity and buffering support for ruminant diets

In ruminant nutrition, Potassium Carbonate may be considered as an alkalinity-support ingredient in diets where rumen environment management is part of the formulation objective. Its carbonate component can contribute buffering capacity, helping formulators design diets that support a stable digestive environment when high-concentrate feeding, heat stress, or variable forage quality may influence acid-base balance. It can be used together with other mineral ingredients, fiber sources, yeasts, or functional feed additives as part of a complete nutritional strategy. Uniform mixing is important because mineral ingredients should be distributed evenly throughout the ration or premix. Practical use should be evaluated with attention to dietary cation-anion balance, total potassium level, sodium level, and animal response.

Feed processing, premix, and mineral blend compatibility

Potassium Carbonate is suitable for use in dry feed manufacturing systems where controlled quality, low insoluble matter, and consistent particle characteristics are required. Its white granular or powdered appearance allows it to be blended into premixes, mineral concentrates, compound feed, and aquaculture feed when compatible with the intended formula. The product should be added through appropriate mixing equipment to ensure uniform distribution and to avoid local over-concentration. It is not a protein, energy, or vitamin ingredient, but it can support the mineral and alkalinity profile of the finished feed. Good manufacturing practice, moisture control, clean equipment, and suitable packaging help maintain product quality during handling, storage, and transportation.

Use in aquaculture and multi-species feed applications

Potassium Carbonate may be used in aquaculture and multi-species feed formulas where mineral balance, water-compatible processing, and formula stability are important considerations. In aquatic diets, minerals may influence feed quality, animal osmoregulation, and the overall nutritional profile of the ration, particularly when feeds are formulated for fish or shrimp under intensive production conditions. The product can also be considered for poultry, swine, ruminant, and pet food applications when a potassium salt with carbonate alkalinity is needed. As with all mineral ingredients, the inclusion level should be determined by qualified nutritionists based on species, diet composition, target performance, and applicable feed legislation. Proper storage and accurate weighing are essential for safe and consistent use.