

PuraChol™

Choline Chloride

PuraChol™ CholFine™ Choline Chloride 70% on Vegetable Carrier is a superior quality, dry granular product of European origin designed for superior flowability and reduced interaction with other ingredients. CholFine is unique to the industry with a particle size that is 30% smaller than other dry choline products. The smaller particle is ideal for direct dosing and ensures the homogeneity of the mix required for extruded pellet preparation.



Choline is an essential nutrient for growth, development and good health of many animal species. It is a biochemical building block and precursor to numerous compounds required to support life.

Product/Quality Characteristics (Declared on PSS):

Parameter	Typical
Choline Chloride	70±2% w/w
Moisture	2,5% w/w max
Particle size > 1.18 mm	2% max
Particle size > 0.6 mm	15% max
Trimethylamine	250 ppm w/w max
Apparent bulk density	600-750 kg/m ³
Packed bulk density	650-850 kg/m ³

Application:

Choline is an essential nutrient for use in poultry, swine, aquaculture and pet food. CholFine Choline Chloride 70% on vegetable carrier is a feed additive preparation (EU FA register: 3a890) suitable for use in premixes and/or feed.

Feeding Recommendations:

FEFANA recommends the following choline supplementation (mg/kg feed 90% DM unless differently indicated).

Feeding Recommendations:

	Period	Choline (mg/kg of feed*)	CholFine™ Choline Chloride (mg/kg of feed**)
Broilers	Starter	400-700	750-1350
	Grower-Finisher	400-700	750-1350
	Broiler Breeders	350-700	650-1350
Hens	Laying	300-500	550-950
Turkeys	Starter	1000-1200	1900-2300
	Grower	500-1000	950-1900
	Finisher	400-600	750-1150
	Breeder	1000-1200	1900-2300
Swine	Piglets Pre-Starter	500-800	950-1550
	Piglets Starter	250-400	500-750
	Grower	150-300	300-550
	Finisher	100-200	200-400
	Gilts	250-500	500-950
	Sows	500-800	950-1550
Ruminants***	Dairy Cows	250-500	500-950
	Beef Cattle	250-500	500-950
Horses	Foals	300-400	550-750
	Leisure Horses	600-900	1150-1700
	Race and Breeding	1000-1400	1900-2700
Other Species	Dogs	1300-2700	2500-5150
	Cats	1300-2700	2500-5150
	Rabbits	600-800	1150-1550
	Mink & Foxes	500-1000	950-1900
	Salmon & Trout	600-1000	1150-1900
	Warm-Water Fish	600-1000	1150-1900
	Sea Bream & Sea Bass	600-1000	1150-1900
	Shrimp	400-600	750-1150

*Dosages in the table expressed as Choline; to be multiplied by 1.34 to obtain 100% Choline Chloride dose. Reference: FEFANA Booklet "Vitamins in Animal Nutrition" (FEFANA Publication 2014).

**Calculations are rounded to the nearest 50mg/kg of feed.

***Balchem's note: choline needs to be provided in a protected form for ruminants. Balchem recommends ReaShure-XC Precision Release Choline for use in ruminants, at a rate of 30 g/head/day.



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PURACHOL™ CHOLFINE™ CHOLINE CHLORIDE 70% ON VEGETABLE CARRIER

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Choline Chloride

Benefits:

- **Higher choline concentration** – Contains 40% less carrier and 40% more choline than CC 50% on silica carrier.
- **Greater density** – Contains more choline per unit of volume than CC 60 Dry curtailing transportation and storage costs while reducing the volume required in the finished product.
- **Fine granulation** – 30% smaller particle size is ideal for extruded feeds used in aquaculture and pet food to help maintain pellet quality.
- **Reduced hygroscopicity** – Resists moisture thanks to a lower speed of water uptake. Brings less water into the premix.
- **Longer shelf life of finished product** – Helps maintain specifications over time.
- **Superior flow characteristics** – Flows through production equipment evenly and consistently under the most challenging production circumstances. CholFine also allows for precise inclusion into premix and complete dispersion in feed mixes while avoiding caking issues. Handling and storage at plant are also improved.
- **Less expensive alternative to Choline Chloride 50% on silica carrier** – Has a similar particle size distribution, better free-flowing properties and lower ash content than mineral carrier products.
- **Additional economical advantages** – Avoids the need for overdosing of vitamins and additional, expensive flowing agents.

Feed Safety and Quality

PuraChol from Balchem sets high standards for choline production. By sourcing the best domestic raw ingredients, manufacturing them in state-of-the-art facilities, maintaining complete supply-chain control and holding ourselves to strict manufacturing standards, we can ensure that the product you get is premium quality.

Balchem's choline chloride is manufactured in Marano Ticino, Italy. Our feed safety management system is certified FAMI-QS, FSSC 22000 and regularly audited by the Italian Veterinary Inspection Authorities. The Marano Ticino production site registration number is a IT M00001 NO (Reg. 183/2005/EC). Balchem Italia also holds ISO 9001 and ISO 14001 certifications.

ALL CHOLINE PRODUCTS ARE NOT CREATED EQUAL

While all choline chloride products are formulated using the same basic molecule, significant differences exist among commercial choline brands and the companies that market them. These differences are seen in product quality testing programs, raw ingredient supply controls and proprietary manufacturing techniques. Differences also extend beyond product to the intangible, but consumer-driven areas such as social responsibility, industry research support and environmental stewardship.

Balchem has invested more than 50 years in research, manufacturing advances and raw ingredient testing and sourcing to ensure you receive the highest quality, purest choline chloride possible.



Balchem Animal Nutrition & Health is the global leader in choline production, chelation and encapsulation technology. With a growing portfolio of nutrition products and a dedication to innovation and industry sustainability, Balchem is leading the charge to meet the nutritional needs of ruminants, monogastrics and companion animals. The company consists of three business segments: Human Nutrition & Health; Animal Nutrition & Health; and Specialty Products. Balchem employs around 1.300 people worldwide who are engaged in diverse activities, committed to developing the company into global market leadership positions.

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