

# CreAMINO®

## Guanidinoacetic acid, Feed Grade 96.0%

### Description

CreAMINO® is a premixture of guanidinoacetic acid (GAA) 96% granulated with starch. Guanidinoacetic acid is approved in Europe as additive belonging to the category 'nutritional additives' and the functional group "amino acids, their salts and analogues".

CreAMINO® is the innovative form of GAA, an amino acid derivative and natural precursor of creatine in the body. Creatine is a constituent of central importance in the energy metabolism particularly of muscle cells. Vertebrates can form creatine by de-novo synthesis by methylation of GAA which itself is formed from the amino acids glycine and arginine. In high yielding animals such as meat type broilers, the capacity of de-novo synthesis of creatine might be a limiting factor and supplementation via feed can be beneficial. Such a deficiency can be compensated by using CreAMINO®. Beside significant improvements in feed conversion ratio, higher body weight gain and breast meat yield were observed.

### Feeding instructions

CreAMINO® is added to the feed over the entire growth period of broilers at 600 g/ton of feed.

### Specification

Substance	Specification
Guanidinoacetic acid (GAA)	96% (min.)
Water	1% (max.)
Starch	1% (max.)

### Appearance

White to slightly beige granulated powder  
 Bulk density: 600 kg/m<sup>3</sup> ± 10%  
 Angle of repose: 28° ± 15%  
 Particle size distribution:  
 < 850 µm: 100%, d<sub>50</sub>: 200–400 µm ± 20%,  
 < 63 µm: max 6% ± 20%  
 Solubility: approx. 4.0 g/l water at 20°C

### Molecular data

Molecular formula guanidinoacetic acid: C<sub>3</sub>H<sub>7</sub>N<sub>3</sub>O<sub>2</sub>  
 Molecular weight guanidinoacetic acid: 117.11 g/mol

### Production

CreAMINO® is synthesized from chemical raw materials.

### Nutritional matrix

Nutrient	Matrix value	
Guanidinoacetic acid (GAA)	96%	
Digestibility	100%	
Crude protein (Nx6.25)	221%	
Arginine*	77%	
Energy content	[MJ/kg]	[kcal/kg]
ME poultry	10.6	2,540

\* CreAMINO® significantly improves weight gain and feed conversion in arginine-adequate, but particularly in arginine-deficient diets. Recent research has indicated that 1 kg of CreAMINO® can spare 770 g dietary arginine.

### Processing

CreAMINO® can be processed into premixes, mineral, and compound feeds by any technical procedure. Its technical properties guarantee homogeneous mixability and stability against demixing.

### Storage and stability

CreAMINO® should be kept in unopened original packaging in a cool and dry place, with no direct exposure to the sun. Storage conditions of 5–30 °C and 40–75 % rel. humidity are recommended.

Under these conditions its active content is guaranteed for 2 years from the manufacturing date. The manufacturing date is part of the lot number on the package label.

### Packaging

25 kg net weight, 3-folders paper bag.  
1,000 kg net weight bulk bag.

### Regulatory affairs

CAS-No.: 352-97-6

Customs tariff number: 23099031

Feed additive code: 3c.3.7.2

CreAMINO® is approved for use in broiler feed according to European feed law and labeled accordingly.

CreAMINO® is not subject to dangerous goods regulations.

### Safety and environment

CreAMINO® can be handled safely.

According to EC chemicals legislation, it is non toxic, and, if correctly handled, it does not irritate the skin and mucous membranes. Accordingly, it is not classified as a hazardous chemical. The usual regulations of safety and hygiene for handling of chemicals should be followed.

For additional information, please contact us directly.



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