

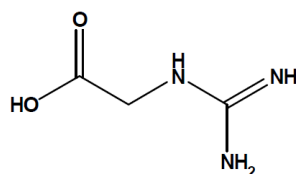
PRODUCT INFORMATION - TECHNICAL DATA SHEET CREAMINO®

NUTRITIONAL FEED ADDITIVE TO SUPPLY CREATINE - A LOST NUTRIENT IN ANIMAL NUTRITION

PRODUCT DESCRIPTION: Creamino® is a slightly beige patent protected preparation of guanidinoacetic acid and 1 % starch.

SPECIFICATION: Guanidinoacetic acid: 96 % (min)
Water: 1 % (max)

CHEMICAL STRUCTURE:



Guanidinoacetic Acid
CAS No. 352-97-6
Molecular weight 117.11 g/mol

PRODUCTION:

- Manufactured in Germany in a dedicated production plant
- Fully backwards integrated chemical synthesis
- ISO 9001:2015 / ISO 14001:2015 and FAMI-QS certified facility

TECHNICAL PROPERTIES:

- Excellent mixing properties
 - Highly flowable
 - No caking
 - No segregation
 - Non hygroscopic
- Dustfree
- Heat stable (up to 130 °C, extrusion)

SHELF LIFE: 3 years from the date of manufacture.
Store in original packaging in a dry place at ambient temperature.

PACKAGING:

- 25 kg bags: 750 kg or 1,000 kg net per palette
- Bigbag: 1,000 kg net per pallet

CUSTOM TARIFF NO.: • 23099031

SAFETY AND ENVIRONMENT:

- Does not contain products of animal origin
- No chemical, heavy metal and microbiological contaminants
- No undesirable substances above official thresholds (2002/32/EC)
- Not subject to OSHA Hazard Communication Standard (29CFR 1910.1200)

PHYSIOLOGICAL ROLE AND FUNCTION:

- The active ingredient in Creamino® is Guanidinoacetic acid (GAA)
- GAA is an amino acid derivative (non proteogenic amino acid) and occurs naturally in the body of animals (and humans)
- GAA is endogenously produced from amino acids (arginine, glycine)
- The only physiological role of GAA is to produce creatine
- Creatine is an essential biomolecule for energy transfer and supply
- Creatine directly reloads ATP (in contrast to other nutrients) and prevents formation of reactive oxygen substances
- The function of muscle, heart, brain, sperm, immune cells rely on high creatine levels
- Creatine levels in the body are compromised by the availability of amino acids

AUTHORIZATION:

- EU: nutritional feed additive, category amino acids, their salts and analogues (category 3c372)
- US: food additive, Code of Federal Register (21CFR 573 496)

GAA is approved and in use as well in many countries in Latin America, Russia, Southeast Asia, Middle East and Africa
For details please contact creamino@alzchem.com

FEEDING INSTRUCTIONS AND APPLICATION:

Authorized application for species differ from country to country.

- EU: broilers, pigs
Russia: all poultry, piglets, pigs, sows
US: broilers, turkeys
Brazil: broilers, breeders, pigs
Asia: broilers, breeders, piglets, pigs, sows

The effective dose range of Creamino® has been set between 600 g and 1200 g per metric ton of complete feed.

NUTRITIONAL INFORMATION:

- Digestibility: 100 %
Arginine: 149 %
AME_N: 83,000 - 166,000 kcal/kg (347-694 MJ/kg)
Creatine: 1120 g/kg

- Creatine is a lost nutrient in animal nutrition (very small amounts in animal proteins, absent in plants)
- Creamino is a unique source of creatine and relieves the body from the burden of endogenous creatine synthesis
- Creamino® improves muscle creatine by approx. 20 - 30 %
- Therefore maximal performance benefits are achieved from adding Creamino® on top of a standard diet

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