Prilled Urea

CHEMICAL NAME

Molecular formula: NH_2-CO-NH_2
CAS No: 57-13-6
Abbreviation: Amino Methanamide

DESCRIPTION

Urea is a solid fertilizer containing 46.0% of Nitrogen. It is produced by the reaction of Ammonia and Carbon Dioxide under high pressure, both feed stocks being supplied by the ammonia plant. The urea produced in solution is turned into a solid fertilizer of spherical prills, in the final section of urea plant called prilling plant.

TECHNICAL QUALITY CONDITIONS

CHARACTERISTICS	MU	VALUES	TESTING METHODS
Aspect	-	White, Prilled, Free Flowing	Visual
Nitrogen	%	Min. 46	U-20B
Biuret	%	Max. 1	BS EN 15479
Moisture	%	Max. 0.5	ASTM E 203
Particle size between 1-2.8 mm	%	Min. 90	ISO 8397
Contaminants	-	No foreign matters	Visual

SPECIFIC PROPERTIES

pH at 20°C: 9.2-9.5
Melting range: 132-135°C
Ignition temperature: not ignitable
Bulk density at 20°C: 1.323 g/cm³

The specific properties present approximate values and contain general information, without being part of the technical quality conditions.

APPLICATIONS

More than 90% of world production of urea is destined for use as a nitrogen-release fertilizer. Urea has the highest nitrogen content of all solid nitrogenous fertilizers in common use. Urea is a raw material for the manufacture of many important chemical compounds, such as: plastics (urea-formaldehyde resins), adhesives (urea-melamineformaldehyde) and industrial feedstock (potassium cyanate).

PACKAGING AND STORAGE

The product should be stored in cool, dry conditions, in well sealed receptacles and protected from heat and direct sunlight.
Store the product only in the original receptacle.
Suspend de unloading process in case of high humidity (>74%), drizzle, fog or wetness of the conveyor/transport system.
Keep closed the ventilators of the hatches till the complete discharge of cargo.
The plastic covers / sheets if any on the cargo has to be retained till the total discharge of the cargo from the hatches.
Keep opened only hatches being discharged. The remaining hatches to remain closed as precaution against bad weather & contamination.
To avoid deterioration of product quality and size, grabs should preferably be used for discharging the cargo, or other means like bucket elevators with rubber conveyors can be used. Ship unloaders having screw conveyors should not be used.
Spilled cargo should be segregated and not mixed with the normal cargo.

SAFETY INFORMATION

Before handling and using of product, the personnel must be aware of the dangers implied. This information is available in SDS and on the product label.
Any unavoidable deposit of dust must be regularly removed.
Ensure good ventilation/exhaustion at the workplace.

IMPORTANT

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.

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