



Knowledge grows

FEED GRADE UREA

Sales Specification

Product Properties

Typical Analysis	Limiting Values
Total Nitrogen 46.1%	46.0 % (min)
Biuret 1 %	1.2 % (max)
Eq. Crude Protein 288.13 %	287.5 % (max)
Moisture 0.15%	0.3 % (min)

Physical Properties	(approx.)
Bulk Density (comp.)	45 lbs/ft ³ (720 kg/m ³)
Angle of Repose	25°
Size Guide Number	120 - 160

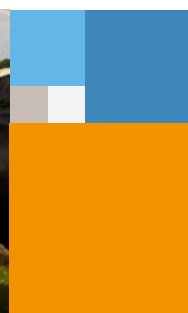
Identification

Chemical Formula: $\text{CO}(\text{NH}_2)_2$
FDA Registration No:
Belle Plaine, Saskatchewan 19804386128

Description

Urea is an inorganic compound found in nature. Thanks to its technology Yara produces technically pure Feed Grade Urea from the synthesis of natural gas and nitrogen found in the air. Feed Grade Urea is a solid white micro-granule with an even round shape.

Non-protein nitrogen (NPN) compounds can be used to supplement the diets of ruminants across a range of feed strategies.



Nutritive value

Protein is a major limiting nutrient for current animal production. Feed Grade Urea is a non-protein nitrogen (NPN) source for ruminants. Microbes in the rumen metabolize NPN compounds to produce ammonia and use this ammonia for microbial protein synthesis, that will be available for absorption through the gastrointestinal tract.

Feed Grade Urea has a typical value of 287.5 % equivalent crude protein for ruminants.

Feed Safety and Quality Management

Yara Belle Plaine has implemented and maintains a Feed Safety Management system including Good Manufacturing Practice (GMP). In addition, Yara Belle Plaine is Safe Feed/Safe Food certified. The Safe Feed/Safe Food Certification Program establishes comprehensive standards of excellence that go beyond existing regulations to maximize food and feed safety.

Directions For Use

Urea shall only be fed to animals with a functional rumen. Feeding urea to the maximum level dose should be done gradually. The maximum content of urea should be only fed as part of diets rich in easily digestible carbohydrates and low in soluble nitrogen. A maximum 30 % of total nitrogen in the daily ration should come from urea-N. Feed Grade Urea is a technically pure non protein nitrogen feed nutritional additive for ruminants with a functional rumen.

Handling and Storage

StorageSolid urea is hygroscopic. To minimize the formation of lumps and cakes of urea, it is recommended to:

- Store urea in the range 10 – 30 °C, with relative humidity below and close to 70%.
- Storage temperature must be as stable as possible.
- Minimize storage height.
- Avoid loading product during rain.
- Reduce fall height when handling product in bulk to minimize dust formation.
- When stored in silo: silo should be easy to enter if necessary to remove lumps/cakes, silos stored outside should be insulated and kept at sufficiently high temperature.

When handled and stored according to instructions shelf life is one year.

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