

UREA FEED GRADE

Technical
Information



Cattle Feed Supplement

Product Description

UREA FEED PRILL is a small diameter, spherical white solid. It is an organic molecule (amide) containing 46% nitrogen in the form of amine groups. UREA is easily decomposed to ammonia and carbon dioxide by heating which has made it a popular substitute for anhydrous ammonia as a catalytic fuel source. UREA is infinitely soluble in water and is a benign and safe chemical to handle.

Application Recommendations

- The UREA micro-prill is added to cattle feed to boost the protein content. UREA is only a nutrient to animals with ruminants that possess the urease enzyme which allows the metabolism of the chemical.
- UREA prill may also be used as a slow release fertilizer. It must be decomposed by microorganisms before it can be assimilated by plants.
- Consult your local fertilizer dealer for fertilizer applications of this product.

Transportation, Storage and Handling

- UREA will decompose into ammonia and carbon dioxide at 275°F.
- **ALWAYS** wash vessels containing UREA thoroughly before attempting repairs requiring welding.
- Should a large spill of UREA micro-prill solution occur, **ALWAYS** restrict it from the drainage. The high nitrogen content (46%) may kill foliage if not diluted.
- UREA can be handled by the municipal water treatment facility if spilled in a municipality.
- **NEVER** allow UREA to come in contact with nitric acid. The resulting chemical is unstable and dangerous.

Properties

MSDS
#1132

Total Nitrogen by weight minimum	46.0%
Crude Protein by weight minimum	287 units
Urea by weight typical	95.7%
% Nitrogen from urea by weight	44.6%
Biuret by weight typical	2.5%
% Nitrogen from biuret by weight	1.0%
Methanol Urea (MU) by weight	0.5% to 1.5%
% Nitrogen from MU by weight	0.5%
Ammonia by weight maximum	150 ppm
Water by weight maximum	0.30%
Loose Density lbs / ft ³	48 to 51
Packed Density lbs / ft ³	53 to 56
pH one molar solution	7.0 to 9.5

Typical Size Distribution

U.S. Standard Mesh	+14	+20	+40	+70	finer
Average % retained	32	60	7	1	1

In terms of fertilizer, the Size Guide Index (SGI) is 115 and the Uniformity Index (UI) is 64.

Hazardous Shipping Description

- There are no DOT restrictions (other than weight) to transport UREA.
- Consult MSDS #1132 for more specific and comprehensive information about chemical hazards.

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