

# 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 is added to cattle feed to boost the protein content. UREA is only a nutrient to animals with rumens 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 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	97.8%
% Nitrogen from urea by weight	45.6%
Biuret by weight typical	0.4%
% Nitrogen from biuret by weight	0.2%
Methanol Urea (MU) by weight	1.3% to 1.6%
% Nitrogen from MU by weight	0.5%
Ammonia by weight maximum	150 ppm
Water by weight maximum	0.30%
Bulk Density lbs / ft <sup>3</sup>	46
pH one molar solution	7.0 to 9.5

### Typical Size Distribution

U.S. Standard Mesh	+8	+12	+14	+16	finer
Average % retained	6	55	37	1	1

In terms of fertilizer, the Size Guide Index (SGI) is 170.

### 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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### Dyno Nobel Inc.

2650 Decker Lake Boulevard, Suite 300, Salt Lake City, Utah 84119 USA  
Phone 800-732-7534 Fax 801-328-6452 Web [www.dynonobel.com](http://www.dynonobel.com)

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