# PRODUCT INFORMATION SHEET

# **PRILLED UREA 46-0-0**

## **Description**

Low biuret Prilled Urea, is a nitrogen compound manufactured by the reaction of ammonia and carbon dioxide. Urea is a white, free flowing prilled (spherical) solid with a small amount of an organic material as a conditioner or anti-caking agent. Concentrations of biuret in Prilled Urea are less than 0.5%.

#### Uses

- As a nitrogen fertilizer applied direct to the soil or through irrigation systems
- As a nitrogen supplying component in the manufacture of various grades of liquid or suspension solutions
- For melting snow on airport runways
- Cattle feed
- Pharmaceuticals
- NOx control systems

### **Handling and Storage**

Storage buildings may be of wood, concrete or steel and transite. Angle of repose of the material should be considered in the design of the building. Handling of the material can be done by normal plant equipment such as conveyor belts, bucket elevators, slingers and front-end loaders.

#### Shipping

Urea shipments will be made in 2000 lb super sacks or 50 lb bags. Bulk shipments will be made in trucks. Urea is not listed on the U.S. Department of Transportation Hazardous Materials table.

### **Environmental Considerations**

Urea spillage should be contained and not permitted to reach run-off drainage ditches or sewer systems by dissolving in rain or wash water.



# **Chemical & Physical Properties**

Chemical Formula	CO(NH <sub>2</sub> ) <sub>2</sub>
CAS Number	57-13-6
Molecular Weight	60.056
Melting Point	271°F (132.8°C)
Color	White
Odor	May have slight ammonia smell
Density	44 – 48 lb/ft³ (704.8 - 768.9 kg/m³)
pH, 10% Solution @ 68°F (20°C)	6.5 – 8.5

### **Typical Analysis**

Total Nitrogen, as N, wt%	46.0
Conditioner, as Methylenediurea (MDU), wt%	1.76
Biuret, wt%	< 0.5
Angle of Repose, degrees	28°
Alkalinity, as Ammonia ppm	150
Moisture, as H <sub>2</sub> O, wt%	0.4
Size Range, Tyler Mesh, Wt. %: -6 / +16m, 1 / 3.35mm	95% min
Size Guide Number - Range	185 - 215
Size Guide Number - Avg	203

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