

# UREA, FEED GRADE

## Identification

### Chemical Substances

CO(NH<sub>2</sub>)<sub>2</sub>

**Synonyms:** NPN Protein, Urea prills

CAS No. 000057-13-6

## Description

FEED GRADE UREA is pure urea (> 98 % CO(NH<sub>2</sub>)<sub>2</sub> equivalent), used as a protein substitute in animal feeds (non-protein nitrogen, NPN), containing a small proportion of biuret (polymerised urea), which in itself may also be used in animal feeds.

UREA is in the form of free-flowing granules or prills, about 1,5-mm diameter, free from extraneous matter.

UREA may have a light green colour, when artificially coloured to distinguish it from other grades.

## Composition, Typical values

Free moisture	< or = 0.5 %
Arsenic Lead	1 mg/kg
Lead	1 mg/kg
Iron	1 mg/kg
Total nitrogen as N	46.0 %
As protein equivalent	287 %
Biuret	< or = 1.0 %

## Physical Properties

Appearance	Light green, free flowing granules
Particle sizes	90 % < 2.8 mm
Bulk Density (untamped)	0.73-0.75
(Tamped)	
Molecular mass	60
Boiling point	Decomposes
Melting point °C	132.6

## Recommended Use / Application

This product is recommended for use as a protein source in concentrates, compound feeds, mineral feeds and free choice supplements for ruminants. UREA has no feeding value for monogastric animals.

## Special Advantages

- FEED GRADE UREA is a highly concentrated nitrogen source.
- The small particle size assures accurate mixing.
- The green colour eliminates the confusion with other urea types.
- FEED GRADE UREA dissolves quickly in water.
- FEED GRADE UREA is free flowing.
- The high solubility makes it suitable for use in liquid and suspension feeds.
- UREA can be used to treat silage and low quality roughages to improve the feeding value.

## Caution

FEED GRADE UREA could be poisonous if used indiscriminately. Read instructions on bag carefully.



# P R O D U C T I N F O R M A T I O N

## Undesirable Elements<sup>1)</sup>

Arsenic (As)  
Lead (Pb)  
Buret  
Free ammonia

## Act 36/1947

Max 2 mg/kg  
Max 10 mg/kg  
Max 15 g/kg  
Max 0.3 g/kg

## Urea Values

Max 1 mg/kg  
Max 1 mg/kg  
Max 15 g/kg  
Max 0.25 g/kg

## Quality Check References

PH	1 % solution
Moisture (free moisture)	(AOAC) Official Methods of Analysis, 1990, 15 <sup>th</sup> Ed. 965.08 Vacuum-Desiccation Methods First Action 1965 – Final Action 1974.
Undesirable elements	AOAC Official Methods of Analysis, 15 <sup>th</sup> Ed., Cd, 974.27, As, 957.22.

## Classification, packaging and labelling

UREA is packed in 50kg woven polypropylene (WPP) bags with a polyethylene inner liner.

## Handling and storage

UREA must be stored under cover in a dry place to ensure a shelf life of at least 3 years.

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The information in this brochure is intended to serve as guidelines and does not constitute a guarantee. We reserve the right to modify the information.

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Replaces all previous data sheets.  
English