



Omnimpex Chemicals S.A.

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UREA - TECHNICAL GRADE

Technical Specifications

Aspect	white or slightly coloured prills	
Total nitrogen	(related to dry substance), min. %	46.4
Humidity	max. %	0.5
Biuret	max. %	1.5
Iron	max. %	0.0004
Granulometry	- between 1 – 2.5 mm, min. %	90
	- under 1 mm and above 10 mm, max. %	10

Analysis methods

- **Total nitrogen** - according to SR ISO 1592/99. Nitrogen from urea is transformed into amoniacal nitrogen in the presence of concentrated sulphuric acid and a catalyst. Ammonia is distilled in a basic medium and then absorbed into a titrated sulphuric acid solution. The rest of the sulphuric acid is retitrated. Allowed differences between tests performed in the same laboratory are max. 0.3 % and between tests of two laboratories are 0.4 % in absolute value.
- **Biuret** – according to SR ISO 2754/99. A violet-red complex results between the biuret and the copper sulphate in the presence of a sodium and potassium tartrate solution. The coloured complex is photometrically measured at a wavelength of 550 nm. Allowed differences between tests performed in the same laboratory are max. 0.05 % and between tests of two laboratories are 0.1 % in absolute value.
- **Humidity** – Karl-Fisher method – according to SR ISO 760/93. Allowed differences between tests performed in the same laboratory are max. 0.05 % and between tests of two laboratories are 0.1 % in absolute value.
- **Iron** – by complexing with 2,2 dipyridyl at 4.5 – 6 pH. Beforehand, iron is reduced with hydrochloride hydroxylamine. The coloured complex that results is photolorimetrically measured at a wavelength of 522 nm.
- **Granulation** – mechanical sieving through sieves of 1 mm and 2.5 mm meshes

Packing

- Product is delivered in bulk or packed in polypropylene bags with inner polyethylene bags. The inner bags are closed by welding and the propylene bags are closed by sewing.
- Bag weight is 50 kg net \pm 0.5 kg

Storage and transportation

- Storage and transportation shall be done in maximum 20 levels stowage in closed, dry and clean storehouses and vehicles.
- The product must be protected from direct sun rays and be kept in a temperature between -10 and $+30$ °C.
- Vehicles shall be clean, dry, weatherproof covered and inside without sharp objects that could cut or puncture the bags.
- For bulk deliveries by sea, vessels hatches must not be wet or dirty of oils or previous transported materials. The walls must be free of cutting off rust.

Note • The quality of the product is guaranteed for a period of 1 years from the manufacturing date provided that storage and transportation conditions are respected.