

Kollipro™ Urea Granules

Urea; Carbonyl diamide



1. Introduction

BASF's Kollipro™ Urea Granules are white to almost white free-flowing granules.

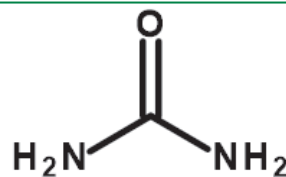
They are produced from crystalline urea by means of roller compaction and do not contain any additives.

The granular form of the urea provides the material with good flowability and reduces the strong tendency for agglomeration while in storage, which is a known issue in handling crystalline urea.

Kollipro™ Urea Granules are suitable for applications in biopharma manufacturing and comply with the monographs for Urea in Ph. Eur. and USP.

2. Chemical and Physical Properties

Chemical name	Urea; Carbonyl diamide
Chemical formula	$\text{CO}(\text{NH}_2)_2$
Molecular weight	60.06 g/mol
CAS number	57-13-6



Melting point	133 °C
Boiling Point	decomposes
pH value	7.1 – 8.4 (100 g/L, 20 °C)

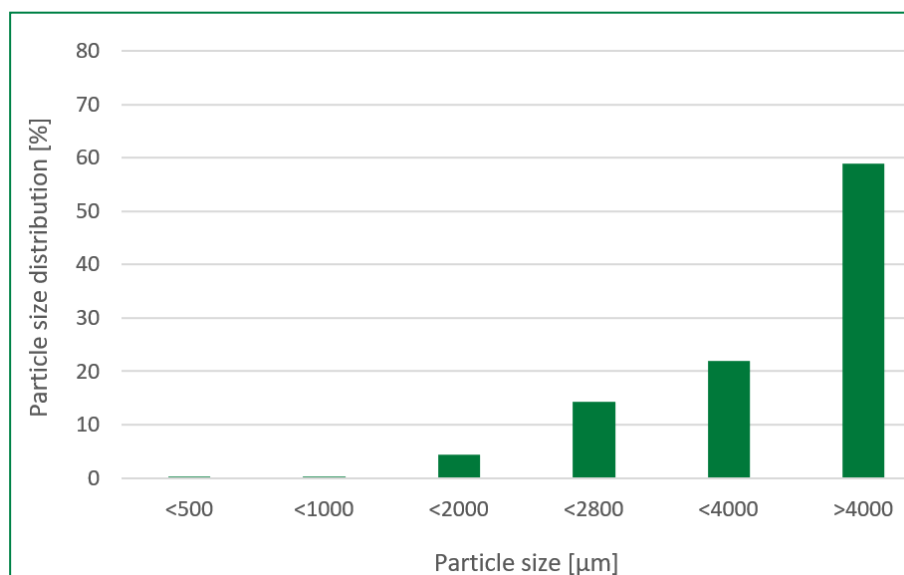


Figure 1: Particle size distribution of Kollipro™ Urea Granules
(sieve analysis, 10min, amplitude 1.5)

Bulk density	0.6 – 0.7 g/mL
Tapped density	0.65 – 0.75 g/mL
Friability	<2 % (abrasion drum, 20 rpm, 10min)

*typical values

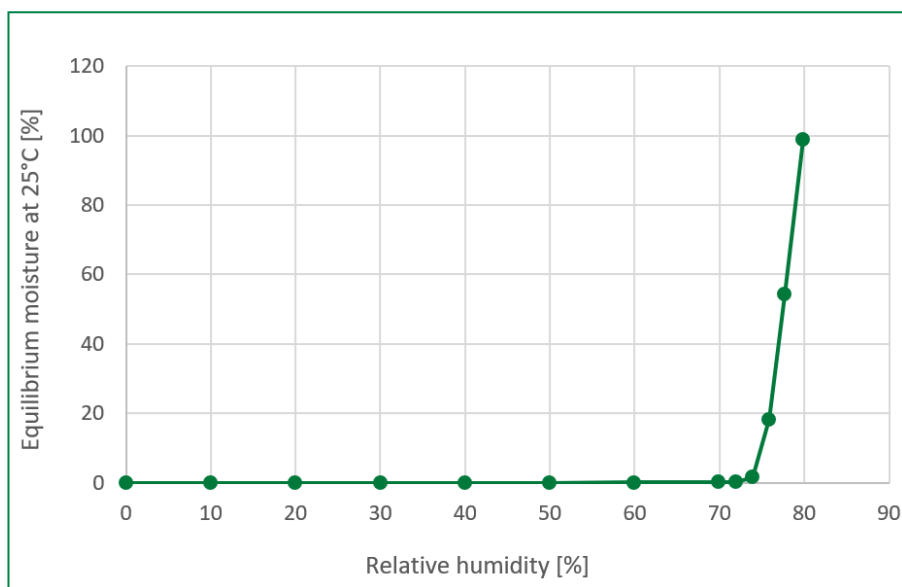


Figure 2: Moisture uptake as a function of relative humidity

3. Handling instructions

Kollipro™ Urea Granules are white to almost white granules. The product is slightly hygroscopic, especially at high relative humidities above 78 %. The irregular shape of the granules prevents intense agglomeration of the product. However, the product may form aggregates while in storage. Those aggregates can typically be broken up easily by mechanical means. Kollipro™ Urea Granules are soluble in water and a number of organic solvents, e.g., ethanol, isopropyl alcohol and methanol. Dissolution of Kollipro™ Urea Granules in water consumes heat (about 257 kJ/kg), causing the solution to cool and thus delaying dissolution. Using lukewarm water can help to ensure the Kollipro™ Urea Granules dissolve without delay.

4. Stability and Safety

The product is typically stable for 24 months after date of production provided the product is stored under recommended conditions. The actual retest period and storage conditions can be found in the document "Quality & Regulatory Product Summary" in [RegXcellence®](#). The safety data sheet is accessible via [MyProductWorld](#) and is sent with every consignment.

5. Available Articles and Packaging

Product name	PRD-No.*	Article numbers	Packaging
Kollipro™ Urea Granules	30845400	50840302	1 kg PE sample bottle
		50839376	25 kg plastic box with double polyethylene liners

* BASF's commercial product number.

6. Documents, Quality & Regulatory Information



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[MyProductWorld](#): article numbers, sample order, safety data sheet, sustainability information

[RegXcellence®](#): specification, compliance documents, regulatory product summary

[ZoomLab®](#) formulation assistance to predict starting formulations and expedite drug formulations.

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