

## UREA

### USP, GMP

CAS #: 57-13-6

Formula:  $\text{NH}_2\text{CONH}_2$

F.W.: 60.06 g/mol

## UREA-4221

## BIO PHARMA GRADE

ANALYSIS		SPECIFICATIONS
Alcohol Insoluble Matter (USP)		$\leq 0.04\%$
Ammonium		$\leq 500$ ppm
Appearance and Color		White Crystals
Assay (USP)		98.0 – 102.0%
Chloride		$\leq 500$ ppm
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected
Identification A, IR (USP)		Conforms to Reference Standard
Identification B (USP)		Conforms to Reference Standard
Melting Range		132 - 135 °C
pH (5M), 20°C		7.5 – 9.5
Organic Impurities (USP)	Urea Related Compound A	$\leq 0.1\%$
	Any Individual Unspecified Impurity	$\leq 0.1\%$
	Total Impurities	$\leq 2.0\%$
Residue on Ignition (USP)		$\leq 0.010\%$
Sulfate		$\leq 500$ ppm
Trace Metals	Aluminum (Al)	$\leq 5$ ppm
	Arsenic (As)	$\leq 5$ ppm
	Calcium (Ca)	$\leq 10$ ppm
	Copper (Cu)	$\leq 5$ ppm
	Iron (Fe)	$\leq 5$ ppm
	Lead (Pb)	$\leq 5$ ppm
	Magnesium (Mg)	$\leq 5$ ppm
	Potassium (K)	$\leq 50$ ppm
	Phosphorous (P)	$\leq 50$ ppm
	Sodium (Na)	$\leq 50$ ppm
	Zinc (Zn)	$\leq 5$ ppm

[Click here to view SDS, CoAs and other supporting regulatory documents on our website.](#)

### General Product Overview

This is a high purity, reagent grade product, purified under cGMP conditions. Urea is used in biochemistry and molecular biology as a protein denaturant with low UV absorptivity. In addition to increasing solubility of hydrophobic molecules, unfolding proteins and altering their three-dimensional structures, Urea also renatures protein structures.

### Industry Application

Suitable for use in biological and biotech chemical process applications from R&D through scale cGMP production.

### General Product Description

- Appears as a white crystalline product
- Manufactured in accordance with IPEC
- Manufactured in an enzyme free, hormone free and animal free environment
- Contains no known major food allergens (as defined by FDA and WHO)
- The final product and its raw materials are not derived from nor come into contact with animal parts, animal products, and/or animal byproducts or derivatives.
- Is not subject to genetic modification
- Synonyms: Carbamide; Carbonyl diamide

### Storage and Shipping Conditions

Refer to SDS.

### Standard Shelf-Life Policy

Unless otherwise noted on the Shelf-Life Statement and CoA, this product has a 2-year retest date supported by a 3-year ICH Q1 Stability Study (if one is completed).

### Package Sizes

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

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