

UREA

BIOTECH, MEETS USP, GMP

BIO PHARMA GRADE / UREA-4221

NH_2CONH_2 * F.W. 60.06 g/mol * CAS# 57-13-6

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This product is used as a high purity, GMP Reagent Grade. 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.

SPECIFICATIONS

ANALYSIS		SPECIFICATIONS
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected
Trace Metals	Aluminum (Al)	≤ 5 ppm
	Arsenic (As)	≤ 5 ppm
	Calcium (Ca)	≤ 10 ppm
	Copper (Cu)	≤ 5 ppm
	Iron (Fe)	≤ 5 ppm
	Lead (Pb)	≤ 5 ppm
	Magnesium (Mg)	≤ 5 ppm
	Potassium (K)	≤ 50 ppm
	Phosphorus (P)	≤ 50 ppm
	Sodium (Na)	≤ 50 ppm
Zinc (Zn)	≤ 5 ppm	
Assay		98.0 – 102.0%
Appearance and Color		White / Crystals
Ammonium (NH ₄)		≤ 500 ppm
Alcohol Insoluble Matter		≤ 0.04%
Heavy Metals		≤ 10 ppm
Identification A, IR		Conforms to Reference Standard
Identification B		Passes Test
Melting Range		132 – 135° C
Residue on Ignition		≤ 0.010%

pH (5M) @ 20°C		7.5 – 9.5
Impurities	Urea Related Compound A	≤ 0.1 %
	Any Individual Unspecified Impurity	≤ 0.1 %
	Total Impurities	≤ 2.0 %
Chloride		≤ 500 ppm
Sulfate		≤ 500 ppm

General Product Description:

Molecular Formula: CH₄N₂O

Molecular Weight: 60.06 g/mol

CAS Number: 57-13-6

Urea Biotech:

- Urea is a white crystalline product
- Is manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- Has no known major food allergens (as defined by FDA and WHO)
- The final product nor its raw materials are not derived from nor come into contact with animals, animal parts, animal products, and/or animal byproducts or derivatives.
- Is not subject to genetic modification
- Synonyms: Carbamide, Carbonyl diamide.

Shelf Life Policy:

Three-year expiry from the date of manufacture.

Storage and Shipping Conditions:

Please refer to the SDS for storage and shipping conditions.

Package Size:

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