

## UREA BIOTECH

USP, GMP

UREA-4221

CH<sub>4</sub>N<sub>2</sub>O \* F.W. 60.06 g/mol \* CAS# 57-13-6

### Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

Urea Biotech is 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 (USP)		98.0 – 102.0%
Appearance and Color		White / Crystals
Heavy Metals		10 ppm max.
Identification A (IR) (USP)		Passes Test
Identification B (USP)		Passes Test
Alcohol-Insoluble Matter (USP)		0.010% max.
Impurities (USP)	Urea Related Compound A	≤ 0.1%
	Any Individual Unspecified Impurities	≤ 0.1 %
	Total Impurities	≤ 2.0%
Loss on Drying (USP)		1.0% max.

Melting Range	132 – 135° C
Residue on Ignition (USP)	0.010% max.
Ammonia (NH <sub>4</sub> )	≤ 0.05%
pH	7.5 – 9.5
Chloride Content	≤ 0.05%
Sulfate	≤ 0.05%

### General Product Description:

Molecular Formula: CH<sub>4</sub>N<sub>2</sub>O

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