

Glycine

A Versatile Formulation Ingredient

Glycine

Product Bulletin

Typical Properties of USP-NF Pharmaceutical grade, USP-NF grade and Technical grade

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GEO offers three grades of glycine: USP-NF Pharmaceutical grade, USP-NF grade and Technical grade. The Technical grade product is suitable for most industrial and technical applications. The USP-NF grades offer exceptional purity, including low chloride levels, to meet the demanding requirements of food, pharmaceutical, and personal care product formulations. The USP-NF Pharmaceutical grade is used for Intravenous (IV) injections, production in APIs and propriety specifications. Additional testing for endotoxin and aluminum is available, as well as other specific customer requirements. All grades have Kosher, Halal, and Vegan certifications.

Product shelf life: Retest after 36 months from manufacture date.

Glycine

Chemical and Physical Properties

Appearance	White, crystalline powder
Molecular Weight	75.07
Melting Point	245°C with decomposition
CAS Registry Number	56-40-6
pK1	2.34
pK2	9.60
Isoelectric Point	5.97
pH of 0.1 Molar Solution	6.06
Solubility in 100 ml Water	25.0g @ 25°C
	39.1g @ 50°C
	54.4g @ 75°C
	67.2g @ 100°C
Solubility in 100g Absolute Ethanol	0.06g @25°C

GEO Glycine (833-02) Technical Grade	Aminoacetic Acid, Technical Grade
Formula	H ₂ N-CH ₂ -COOH
Description	white to off-white crystalline powder
Assay	98.5% minimum calculated on a dry basis
Loss on Drying	0.2% maximum
Residue on Ignition	0.1% maximum

GEO Glycine (833-01) USP 36-NF 31 Grade	Aminoacetic Acid, USP 36-NF 31 Grade
Formula	H ₂ N-CH ₂ -COOH
Description	white, odorless, crystalline powder
Assay	98.5-101.5% calculated on a dry basis
Loss on Drying	<0.2% maximum
Residue on Ignition	<0.1% maximum
Chloride	<70 ppm
Sulfates	<65 ppm
Heavy Metals	<20 ppm
Hydrolyzable Substances	Pass
IR Identification	Pass
Residual Solvents	Pass

GEO Glycine Pharma (833-03) USP 36-NF 31 Grade	Aminoacetic Acid Pharma, USP 36-NF 31 Grade
Formula	H ₂ N-CH ₂ -COOH
Description	white, odorless, crystalline powder
Assay	98.5-101.5% calculated on a dry basis
Loss on Drying	<0.2% maximum
Residue on Ignition	<0.1% maximum
Chloride	<70 ppm
Sulfates	<65 ppm
Heavy Metals	<20 ppm
Hydrolyzable Substances	Pass
IR Identification	Pass
Residual Solvents	Pass
Endotoxins	≤ 3.69 eu/g
Silicon	0.50 max ppm
Iron	≤ 1.0 ppm**
Aluminum	R & R ppm**

**Typical values, not a specification

The specifications listed above conform to standards set by the United States Pharmacopoeia 36 and National Formulary 31.

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