

Glycine (Food Grade) — Catalogue No. BA-1001

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Product Information

Product name	Glycine (Food Grade)
Catalogue number	BA-1001
Other names	Aminoacetic acid; glycoll; INS 640
CAS No. / EC No.	56-40-6 / 200-272-2
Formula	$C_2H_5NO_2$ (NH_2CH_2COOH)
Molecular weight	75.07 g/mol
Grade	Food grade; meets BP / USP / FCC monographs
HS code	2922.49

Description and Intended Use

Glycine (aminoacetic acid) is the simplest amino acid. It is a white, odourless, crystalline powder with a sweet taste, freely soluble in water (about 250 g/L at 25 °C), very slightly soluble in ethanol and practically insoluble in ether. BA-1001 meets the requirements of the British Pharmacopoeia, United States Pharmacopeia and Food Chemicals Codex monographs. It is used in food and supplement formulations, including powdered beverages, and in laboratory applications. Food-grade ingredient for food and supplement manufacturing, and laboratory use. Use in foods only as permitted by the Australia New Zealand Food Standards Code or the regulations of the target market.

Function in Formulations

In food and supplement products glycine provides a source of the amino acid, a mild sweetness and pH buffering. In Australia, glycine is a permitted amino acid in formulated supplementary sports foods under Standard 2.9.4 of the Food Standards Code, subject to the maximum amount per one-day quantity listed in Schedule 29. The finished-product manufacturer is responsible for confirming the regulatory category and permitted levels.

Specifications

Parameter	Specification	Method
Appearance	White crystalline powder, odourless	Visual
Identification	Positive	BP / USP
Appearance of solution	Clear; not more intensely coloured than reference solution Y7	BP
Assay ($C_2H_5NO_2$, dried basis)	98.5–101.5%	Titration (BP / USP)
pH (1 in 20 solution)	5.9–6.4	Potentiometric
Loss on drying	≤ 0.2%	Gravimetric
Residue on ignition	≤ 0.1%	Gravimetric

Parameter	Specification	Method
Chloride (as Cl)	$\leq 0.007\%$	Limit test
Sulfate (as SO ₄)	$\leq 0.0065\%$	Limit test
Heavy metals (as Pb)	$\leq 0.002\%$ (≤ 20 mg/kg)	Limit test
Ninhydrin-positive substances	$\leq 0.5\%$	BP
Hydrolysable substances	Complies	USP

Microbiological and Elemental Testing

Microbiological limits and individual elemental impurities (Pb, As, Cd, Hg by ICP-MS) are not part of the manufacturer's standard release specification. Glycine is a dry, synthetic crystalline substance with very low water activity. Lot-specific microbiological and elemental testing can be arranged on request.

Allergen and Dietary Information

Allergens	Glycine is a single, synthetic substance. No allergenic materials listed in Standard 1.2.3 of the Food Standards Code are used as ingredients.
Origin of material	See the lot Certificate of Analysis.

Storage and Shelf Life

Storage	Store at 15–25 °C in the original, tightly closed container, in a dry place away from direct sunlight.
Shelf life	Two years from the date of manufacture when stored as directed. See the lot Certificate of Analysis.
Packaging	Food-grade sealed polyethylene liner in an outer container.

Safety

Not classified as hazardous under the GHS. Avoid creating dust and wear eye protection when handling large quantities. See the Safety Data Sheet.

References

- British Pharmacopoeia — Glycine monograph.
- United States Pharmacopeia — Glycine monograph.
- Food Chemicals Codex — Glycine monograph.
- Australia New Zealand Food Standards Code — Standard 2.9.4 and Schedule 29.

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