



>>Entry Name: Glycine

ENTRY UNDER REVIEW

Synonym(s): Aminoacetic acid, 9CI. Glycocoll. Glue sugar. Gly. FEMA 3287

CAS Registry Number: 56-40-6

Related CAS Registry Numbers(s): 920-25-2 2184-96-5 4896-77-9 6000-44-8 7299-33-4 23297-34-9 104403-70-5

$\text{H}_2\text{NCH}_2\text{COOH}$

Molecular Formula: $\text{C}_2\text{H}_5\text{NO}_2$

Molecular Weight: 75.067

Accurate Mass: 75.032029

Percentage Composition: C 32.00%; H 6.71%; N 18.66%; O 42.63%

Biological Source: Occurs widely in peptides and proteins

Use/Importance: Catalyst for Knoevenagel condensations. Used for detn. of Cu, Au

Biological Use/Importance: NMDA agonist. Dietary supplement, nutrient. Used in urogenital irrigating solutions for some surgical procedures

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 292 (262°) dec.°

Solubility: V. sol. H_2O (25g/100g at 25°); sol. H_2O ; sl. sol. EtOH

pKa Value: $\text{p}K_{\text{a}1}$ 2.35; $\text{p}K_{\text{a}2}$ 9.78 (25°)

Other Data: Isoelectric point 5.97. Sweet taste.

Hazard & Toxicity: LD₅₀ (rat, orl) 7930 mg/kg. Adverse effects of irrigation solutions observed

Aldrich: 24126-1

Fluka: 50052

Sigma: G1643

>>Derivative: Hydrochloride

CAS Registry Number: 6000-43-7

Melting Point: Mp 185°

Aldrich: 21950-9

Sigma: G2879

>>Derivative: Sulfate (3:1)

Synonym(s): Triglycine sulfate

CAS Registry Number: 513-29-1

Use/Importance: Forms a ferroelectric phase

Physical Description: Cryst.

>>Derivative: Me ester

CAS Registry Number: 616-34-2

Molecular Formula: $\text{C}_3\text{H}_7\text{NO}_2$

Molecular Weight: 89.094

Accurate Mass: 89.047679

Percentage Composition: C 40.44%; H 7.92%; N 15.72%; O 35.92%

Boiling Point: Bp 130° dec.. Bp₅₀ 54°

>>Derivative: Me ester; hydrochloride

CAS Registry Number: 5680-79-5

Melting Point: Mp 175°

Solubility: Sol. EtOH

Aldrich: G660-0

Fluka: 50110

Sigma: G8126