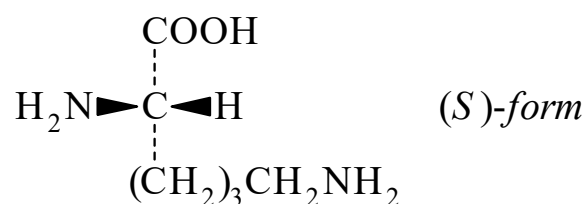




>>Entry Name: Lysine, 9CI, INN, USAN

ENTRY UNDER REVIEW

Synonym(s): 2,6-Diaminohexanoic acid. Lys



CAS Registry Number: 6899-06-5

Molecular Formula: C₆H₁₄N₂O₂

Molecular Weight: 146.189

Accurate Mass: 146.105528

Percentage Composition: C 49.30%; H 9.65%; N 19.16%; O 21.89%

Calculated Log P Data: Log P -3.42 (calc)

>>Variant: (*R*)-form

Synonym(s): D-form

CAS Registry Number: 923-27-3

Molecular Formula: C₆H₁₄N₂O₂

Molecular Weight: 146.189

Accurate Mass: 146.105528

Percentage Composition: C 49.30%; H 9.65%; N 19.16%; O 21.89%

Melting Point: Mp 218 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -22$ (c, 3 in 3M HCl)

Fluka: 62830

Sigma: L8021

>>Derivative: Hydrochloride

CAS Registry Number: 7274-88-6

Melting Point: Mp 266 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -21$ (c, 2 in 5M HCl)

Aldrich: 28171-9

Fluka: 62950

Sigma: L5876

>>Variant: (*S*)-form

Synonym(s): L-form

CAS Registry Number: 56-87-1

Extra CAS Registry Numbers(s): 39665-12-8

Molecular Formula: C₆H₁₄N₂O₂

Molecular Weight: 146.189

Accurate Mass: 146.105528

Percentage Composition: C 49.30%; H 9.65%; N 19.16%; O 21.89%

Use/Importance: Dietary supplement, nutrient

Physical Description: Needles (EtOH aq.)

Melting Point: Mp 224-225 dec.° (darkens at 210°)

Optical Rotation: $[\alpha]_{\text{D}} +19.7$ (H₂O). $[\alpha]_{\text{D}} +37.9$ (5M HCl)

Solubility: V. sol. H₂O; spar. sol. EtOH

pKa Value: pK_{a1} 2.16; pK_{a2} 9.06; pK_{a3} 10.54 (25°, 0.1M NaClO₄)

Other Data: Isoelectric point pH 10.56 at 0°, 9.74 at 25°. Flat taste. Undergoes thermal condensation polym. to give poly(L-lysine)

Hazard & Toxicity: Exp. reprod. and teratogenic effects (v. large doses)

Aldrich: 16971-4

Fluka: 62850

Sigma: L1137

Other: Degussa

>>Derivative: Hydrochloride

Synonym(s): Lysine hydrochloride, USAN