



>>Entry Name: [Bis(2-hydroxyethyl)amino]acetic acid

Synonym(s): *N,N*-Bis(2-hydroxyethyl)glycine, gCl. Bicine. Diethylolglycine. Versene Fe 3. 2-HxG

CAS Registry Number: 150-25-4

Related CAS Registry Numbers(s): 139-41-3 17123-43-2 29463-05-6

$(\text{HOCH}_2\text{CH}_2)_2\text{NCH}_2\text{COOH}$

Molecular Formula: $\text{C}_6\text{H}_{13}\text{NO}_4$

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

Use/Importance: Good's buffer with pH range 7.7-9.1. Sequestering agent. Corrosion inhibitor. Used as a masking agent for metals (Tl, Ti Zr, Hf, Bi). Used as 0.012M aq. soln. for photometric detn. of Bi (λ_{max} 245 nm, ϵ 4400, pH 7-8.5)

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 193-194 dec.°

Solubility: Sl. sol. H_2O

pKa Value: pK_a 8.35 (20°)

Aldrich: 16379-1

Fluka: 14872

Sigma: B3876

References:

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Eagle, H., *Science (Washington, D.C.)*, 1971, **174**, 500, (*use*)
McGlothlin, C.D. *et al.*, *Anal. Lett.*, 1976, **9**, 245, (*props*)
Cody, V. *et al.*, *Acta Cryst. B*, 1977, **33**, 905, (*cryst struct*)
Hutchens, T.W. *et al.*, *J. Chromatogr.*, 1986, **359**, 157, (*use*)
Farfan, N. *et al.*, *Synthesis*, 1987, 927, (*synth, pmr, cmr*)
Botana Lopez, A. *et al.*, *Microchem. J.*, 1988, **37**, 200, (*detn, Bi*)
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