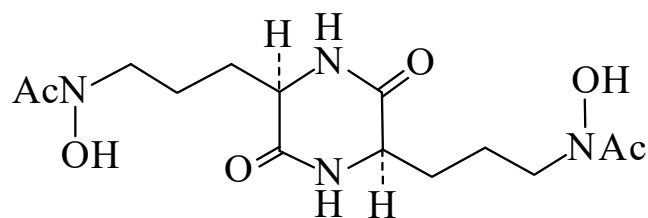




>>Entry Name: Rhodotorulic acid

Synonym(s): *N,N'*-[3,6-Dioxo-2,5-piperazinediyl]di-3,1-propanediyl]bis[*N*-hydroxyacetamide], 9Cl



Molecular Formula: C₁₄H₂₄N₄O₆

Molecular Weight: 344.367

Accurate Mass: 344.169586

Percentage Composition: C 48.83%; H 7.02%; N 16.27%; O 27.88%

>>Variant: (*R,R*)-form

CAS Registry Number: 39108-08-2

Molecular Formula: C₁₄H₂₄N₄O₆

Molecular Weight: 344.367

Accurate Mass: 344.169586

Percentage Composition: C 48.83%; H 7.02%; N 16.27%; O 27.88%

Melting Point: Mp 216-218.5 dec.°

Optical Rotation: [α]_D²⁴+28 (c, 0.6 in H₂O)

>>Variant: (*S,S*)-form

CAS Registry Number: 18928-00-2

Molecular Formula: C₁₄H₂₄N₄O₆

Molecular Weight: 344.367

Accurate Mass: 344.169586

Percentage Composition: C 48.83%; H 7.02%; N 16.27%; O 27.88%

Biological Source: Isol. from cultures of the genus *Rhodotorula*

Use/Importance: Iron chelating agent. Useful for treating β -thalassemia major

Melting Point: Mp 217-218.5 dec.°

Optical Rotation: [α]_D²⁵-28.8 (c, 1 in H₂O)

Solubility: BERDY SOL: Sol. H₂O; fairly sol. MeOH; poorly sol. DMF, butanol, Py, hexane

UV: [neutral] $\lambda_{\max}$ 425 (ϵ 2700) (pH 7 buffer) (Berdy) [acid] $\lambda_{\max}$ 480 (ϵ 1750) (pH 2 buffer) (Berdy)

Sigma: R4379

References:

- Atkin, C.L. *et al.*, *Biochemistry*, 1968, **7**, 3734, (*isol*)
Isawa, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1972, **45**, 1467, (*synth*)
Fujii, T. *et al.*, *Tetrahedron*, 1973, **29**, 3825, (*synth*)
Anke, T. *et al.*, *Arch. Microbiol.*, 1974, **95**, 227, (*biosynth*)
Widmer, J. *et al.*, *Helv. Chim. Acta*, 1974, **57**, 1904, (*synth*)
Akers, H.A. *et al.*, *Org. Mass Spectrom.*, 1975, **10**, 259, (*ms*)
Lee, B.H. *et al.*, *J.O.C.*, 1984, **49**, 2418, (*synth*)