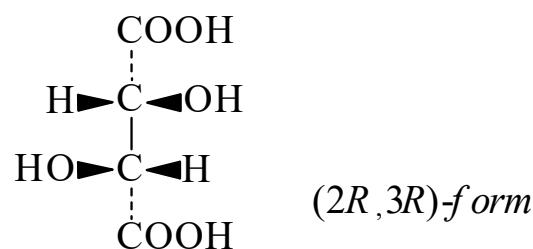




>>Entry Name: Tartaric acid

ENTRY UNDER REVIEW

Synonym(s): 2,3-Dihydroxybutanedioic acid, 9CI



Related CAS Registry Numbers(s): 133-48-2 868-14-4 921-53-9 1234-09-9 3164-34-9 3715-17-1 6381-58-4 6381-59-5 14475-11-7 18261-99-9 38270-70-1 40968-90-9 84519-50-6 117384-46-0 174873-60-0

Molecular Formula: C₄H₆O₆

Molecular Weight: 150.088

Accurate Mass: 150.01644

Percentage Composition: C 32.01%; H 4.03%; O 63.96%

metal salts have separate entries

Calculated Log P Data: Log P -3.27 (calc)

>>Variant: (2R,3R)-form

Synonym(s): L-form. L-Threarcic acid. FEMA 3044. E 334

CAS Registry Number: 87-69-4

Extra CAS Registry Numbers(s): 526-83-0

VE8100 XA4050 XA4140 PA3450 XA4150 XA4930

Molecular Formula: C₄H₆O₆

Molecular Weight: 150.088

Accurate Mass: 150.01644

Percentage Composition: C 32.01%; H 4.03%; O 63.96%

Biological Source: Occurs in many plants and fruit. Comly. available from the KH salt deposited in fermenting grape juice

Use/Importance: Acidulant for beverages, foods and pharmaceuticals, firming agent, flavour enhancer, humectant, other uses in food. Used to clean metals for plating, as a mordant for dyeing and in calico printing. Resolving agent for bases. Monomer used in biodegradable polyesters and polyurethanes useful as controlled release agents. Used as a masking agent for metals; gravimetric detn. of K; KH-tartrate is used as primary alkalimetric standard. The acid and many of its derivs. are inexpensive resolving agents for chiral bases. Monomer for optically active polyamides

Biological Use/Importance: Pharmaceutical aid (buffering agent)

Melting Point: Mp 169-170°

Optical Rotation: $[\alpha]_D^{20} +12$ (c, 20.0 in H₂O)

pKa Value: pK_{a2} 4.34 (25°)

Calculated Log P Data: Log P -3.27 (calc)

Other Data: Cream of tartar (the K₂H salt) is used in baking powder; Rochelle salt (the K,Na salt) is used in electroplating and medicinally as a mild saline cathartic preparation; tartar emetic (the NaSb salt) formerly used in low dose as an expectorant in cough syrups and in large doses as an emetic

Hazard & Toxicity: Strong solns. mildly irritant ADI 30 mg/kg b.w. (1974, 1978)

Aldrich: 25138-0

Fluka: 95309

Sigma: T8277

>>Derivative: Mono-Na salt

CAS Registry Number: 526-94-3

Extra CAS Registry Numbers(s): 6131-98-2

Optical Rotation: $[\alpha]_D^{19} +21.8$ (H₂O)

Aldrich: 28998-1

Fluka: 71680

>>Derivative: Di-NH₄ salt

CAS Registry Number: 3164-29-2

Extra CAS Registry Numbers(s): 14307-43-8

Optical Rotation: $[\alpha]_D^{15} +34.6$ (H₂O)

Aldrich: 22892-3

Fluka: 9985

Sigma: A2956