



>>Entry Name: Succinic acid, 8Cl

ENTRY UNDER REVIEW

Synonym(s): Butanedioic acid, 9Cl. Ethane-1,2-dicarboxylic acid. Amber acid. Wormwood acid

CAS Registry Number: 110-15-6

Related CAS Registry Numbers(s): 56-14-4 2226-88-2 2922-54-5 14047-56-4

HOOCCH₂CH₂COOH

Molecular Formula: C₄H₆O₄

Molecular Weight: 118.089

Accurate Mass: 118.02661

Percentage Composition: C 40.68%; H 5.12%; O 54.19%

Biological Source: Widely distributed in higher plants and prod. by microorganisms

Use/Importance: Used in the food industry and in lacquers and photography. Used as aq. soln. for gravimetric detn. of Fe(III), Al. Sodium salt has been used in treatment of psychotic disorders. Monomer for condensation polym. with diols and diamines to give polyesters and polyamides

Physical Description: Prisms (H₂O)

Melting Point: Mp 184-185°

Boiling Point: Bp 235° dec.

Solubility: Sol. H₂O, EtOH, Me₂CO, Et₂O; prac. insol. C₆H₆, CS₂, CCl₄, petrol

pKa Value: pK_{a1} 4.22; pK_{a2} 5.7 (25°, H₂O)

Hazard & Toxicity: Severe eye irritant. LD₅₀ (rat, orl) 2260 mg/kg

Aldrich: 23968-2

Fluka: 14080

Sigma: S0141

Supelco: R47-5160

>>Derivative: Di-Na salt

CAS Registry Number: 150-90-3

Extra CAS Registry Numbers(s): 6106-21-4

Physical Description: Cryst. + 6H₂O

Other Data: Loses water of cryst. at 120°

>>Derivative: Mono-Me ester

CAS Registry Number: 3878-55-5

Molecular Formula: C₅H₈O₄

Molecular Weight: 132.116

Accurate Mass: 132.04226

Percentage Composition: C 45.46%; H 6.10%; O 48.44%

Melting Point: Mp 58°

Boiling Point: Bp₂₀ 151°. Bp₄ 121-123°

Solubility: Sol. H₂O

pKa Value: pK_a 4.49 (25°, H₂O)

Aldrich: M8110-1

Fluka: 14193

Sigma: S9259

>>Derivative: Di-Me ester

Synonym(s): Dimethyl succinate. Methyl succinate. FEMA 2396

CAS Registry Number: 106-65-0

Molecular Formula: C₆H₁₀O₄

Molecular Weight: 146.143

Accurate Mass: 146.05791

Percentage Composition: C 49.31%; H 6.90%; O 43.79%

Use/Importance: Monomer for polyester synth.

Physical Description: Liq.

Melting Point: Mp 19°

Boiling Point: Bp 200°. Bp₁₁ 80°

Solubility: Sl. sol. H₂O; sol. EtOH, Et₂O, Me₂CO

Density: d₄¹⁸ 1.12