



>>Entry Name: Anthraquinone-1,8-disulfonic acid

Synonym(s): 9,10-Dihydro-9,10-dioxo-1,8-anthracenedisulfonic acid, 9Cl, 8Cl

CAS Registry Number: 82-48-4

Molecular Formula: C₁₄H₈O₈S₂

Molecular Weight: 368.344

Accurate Mass: 367.96606

Percentage Composition: C 45.65%; H 2.19%; O 34.75%; S 17.41%

Physical Description: Yellow needles + 5H₂O (H₂O)

Melting Point: Mp 293-294°

Solubility: V. sol. H₂O, sol. EtOH

Hazard & Toxicity: LD₅₀ (rat, orl) 1870 mg/kg

>>Derivative: Di-Na salt

CAS Registry Number: 903-46-8

Physical Description: Yellow prisms + 4H₂O (H₂O)

Solubility: Sol. H₂O

Hazard & Toxicity: Skin and eye irritant

>>Derivative: Di-K salt

CAS Registry Number: 14938-42-2

Physical Description: Yellow needles (H₂O)

Solubility: Spar. sol. H₂O

>>Derivative: Dichloride

Molecular Formula: C₁₄H₆Cl₂O₆S₂

Molecular Weight: 405.235

Accurate Mass: 403.898284

Percentage Composition: C 41.50%; H 1.49%; Cl 17.50%; O 23.69%; S 15.83%

Physical Description: Yellow cryst. (PhNO₂)

Melting Point: Mp 222-223 dec.°

>>Derivative: Diamide

Molecular Formula: C₁₄H₁₀N₂O₆S₂

Molecular Weight: 366.375

Accurate Mass: 365.998028

Percentage Composition: C 45.90%; H 2.75%; N 7.65%; O 26.20%; S 17.50%

Physical Description: Yellow cryst. powder (PhNO₂ or PhCl)

Melting Point: Mp 340°

References:

Fierz-David, H.E., *Helv. Chim. Acta*, 1927, **10**, 201, (synth)

Lauer, K., *J. Prakt. Chem.*, 1931, **130**, 185, (synth)

Japan. Pat., 1978, 77 106 819; *CA*, **89**, 6152, (synth)

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Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, APK635; DLJ600