>>**Entry Name: Anthraquinone-1,8-disulfonic acid**
Synonym(s): 9,10-Dihydro-9,10-dioxo-1,8-anthracenedisulfonic acid, 9CI, 8CI

CAS Registry Number: 82-48-4

Molecular Formula: $C_{14}H_8O_8S_2$
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 + $5H_2O$ (H_2O)
Melting Point: Mp 293-294°
Solubility: V. sol. H_2O, sol. EtOH
Hazard & Toxicity: LD_{50} (rat, orl) 1870 mg/kg

>>**Derivative:** Di-Na salt

CAS Registry Number: 903-46-8
Physical Description: Yellow prisms + $4H_2O$ (H_2O)
Solubility: Sol. H_2O
Hazard & Toxicity: Skin and eye irritant

>>**Derivative:** Di-K salt

CAS Registry Number: 14938-42-2
Physical Description: Yellow needles (H_2O)
Solubility: Spar. sol. H_2O

>>**Derivative:** Dichloride

Molecular Formula: $C_{14}H_6Cl_2O_6S_2$
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. ($PhNO_2$)
Melting Point: Mp 222-223 dec.°

>>**Derivative:** Diamide

Molecular Formula: $C_{14}H_{10}N_2O_6S_2$
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 ($PhNO_2$ 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)*
U.K. Pat., 1978, 1 500 202; *CA*, **89**, 45067
Lewis, R.J.*, Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold*, 1992, APK635; DLJ600