



>>Entry Name: Indigo-5,5',7,7'-tetrasulfonic acid

Synonym(s): 2-(1,3-Dihydro-3-oxo-5,7-disulfo-2*H*-indol-2-ylidene)-2,3-dihydro-3-oxo-1*H*-indole-5,7-disulfonic acid. 3,3'-Dioxo-[$\Delta,\Delta^{2,2'}$ -biindoline]-5,5',7,7'-tetrasulfonic acid, 8Cl. C.I. 73020 Acid dye. Indigotine P

Related CAS Registry Numbers(s): 67627-19-4

As Indigo-5-sulfonic acid, **KGS01-G** with
 $R^1 = R^2 = R^3 = SO_3H$

Molecular Formula: $C_{16}H_{10}N_2O_{14}S_4$

Molecular Weight: 582.524

Accurate Mass: 581.901488

Percentage Composition: C 32.99%; H 1.73%; N 4.81%; O 38.45%; S 22.02%

Other Data: E^o +0.365 V (30°)

>>Derivative: Tetra-Na salt

CAS Registry Number: 6371-42-2

Use/Importance: Redox indicator used as aq. soln.

Physical Description: Dark bluish-red cryst. powder

Solubility: Sol. H_2O ; insol. EtOH

>>Derivative: Tetra-K salt

CAS Registry Number: 28699-96-9

Use/Importance: Commercially available

Physical Description: Light sensitive

References:

Brandt, L.Z., *Fresenius' Z. Anal. Chem.*, 1914, **53**, 1, (*use*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, (*use*)