



>>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<sub>16</sub>H<sub>10</sub>N<sub>2</sub>O<sub>14</sub>S<sub>4</sub>

**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<sup>o</sup> +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<sub>2</sub>O; 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)