

PRODUCT INFORMATION



Indigo Carmine

Item No. 31525

CAS Registry No.: 860-22-0
Formal Name: 2-(1,3-dihydro-3-oxo-5-sulfo-2H-indol-2-ylidene)-2,3-dihydro-3-oxo-1H-indole-5-sulfonic acid, disodium salt

Synonyms: Acid Blue 74, C.I. 73015, C.I. 75781, FD and C Blue 2, indigo disulfonate, Indigotine

MF: C₁₆H₈N₂O₈S₂ • 2Na

FW: 466.4

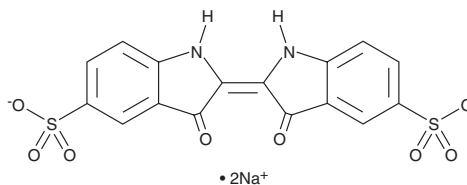
Purity: ≥70%

UV/Vis.: λ_{max}: 252, 287, 600 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Indigo carmine is supplied as a crystalline solid. A stock solution may be made by dissolving the indigo carmine in the solvent of choice, which should be purged with an inert gas. Indigo carmine is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. Indigo carmine is slightly soluble in dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of indigo carmine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of indigo carmine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Indigo carmine is an indigoid dye and a redox indicator.^{1,2} Upon reduction, indigo carmine shifts from blue to yellow with absorbance maxima of 610 and 407 nm, respectively.² Formulations containing indigo carmine have been used as color additives in food and pharmaceutical preparations.

References

1. Claus, H., Faber, G., and König, H. Redox-mediated decolorization of synthetic dyes by fungal laccases. *Appl. Microbiol. Biotechnol.* **59(6)**, 672-678 (2002).
2. Tratnyek, P.G., Reilkoff, T.E., Lemon, A.W., et al. Visualizing redox chemistry: Probing environmental oxidation-reduction reactions with indicator dyes. *Chem. Educator* **6(3)**, 172-179 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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