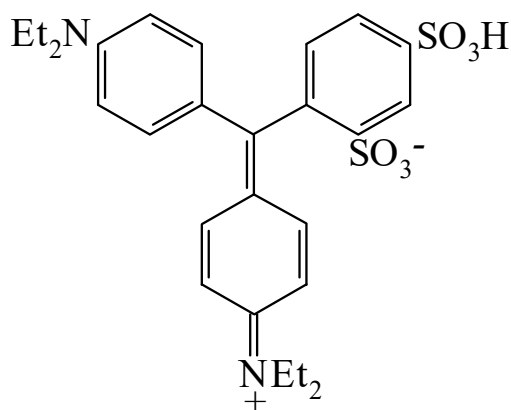




>>Entry Name: Sulphan blue, BAN

Synonym(s): *N*-[4-[[4-(Diethylamino)phenyl](2,4-disulfophenyl)methylene]-2,5-cyclohexadien-1-ylidene]-*N*-ethylethanaminium, 9Cl. [4-[α -[*p*-(Diethylamino)phenyl]-2,4-disulfobenzylidene]-2,5-cyclohexadien-1-ylidene]diethylammonium, 8Cl. Blue VRS. Disulfine blue VNS. Alphazurine 2G. Sulfan blue. Patent blue V. C.I. 42045



CAS Registry Number: 116-95-0

Extra CAS Registry Numbers(s): 129-17-9

Molecular Formula: C₂₇H₃₂N₂O₆S₂

Molecular Weight: 544.692

Accurate Mass: 544.170178

Percentage Composition: C 59.54%; H 5.92%; N 5.14%; O 17.62%; S 11.77%

Use/Importance: Acid base indicator used as 0.1% aq. soln. (pH range: 0.8-3.0; colour change: yellow → blue)

Biological Use/Importance: Cardiovascular investigative dye, freq. used as Na or Al salt

Physical Description: Violet powder (as Na salt)

Solubility: Na salt v.sol. H₂O, sol. EtOH

UV: [neutral] $\lambda_{\max}$ 635 () (H₂O)

Hazard & Toxicity: Hypersensitivity reactions reported incl. anaphylactic shock when used parenterally

>>Derivative: Ca salt

Synonym(s): C.I. Acid Blue 3. C.I. Food Blue 3. E 131. CI 42051

CAS Registry Number: 3536-49-0

Use/Importance: Colourant for beverages and pharmaceuticals

Physical Description: Bright blue solid

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **2**, 1028C, (*ir*)
Holmes, W.C., *Ind. Eng. Chem.*, 1923, **15**, 833, (*uv*)
Colour Index, 1971, **4**, 4383, (*synth, bibl*)
Gangolli, S.D. *et al.*, *Food Cosmet. Toxicol.*, 1972, **10**, 449, (*pharmacol*)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, 125, (*use*)
McEwen, C.N. *et al.*, *Anal. Chem.*, 1977, **49**, 922, (*ms*)
IARC Monog., 1978, **16**, 163; *Suppl.* 7, 59, (*rev, tox*)
Newton, D.W. *et al.*, *J. Pharm. Sci.*, 1981, **70**, 122, (*props*)
Martindale, The Extra Pharmacopoeia, 31st edn., Pharmaceutical Press, 1996, 1108
Nevado, B. *et al.*, *Fresenius' Z. Anal. Chem.*, 1999, **365**, 383-388, (*anal*)
Perez-Urquiza, M. *et al.*, *J. Chromatogr., A*, 2000, **898**, 271-275, (*anal*)
Sigma-Aldrich Library of Stains, Dyes and Indicators, 553
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ADE500