



Formula: C₁₆H₁₄O₆

MW: 302.28

CAS: 517-28-2

MDL: MFCD00078111

TNP: TNP00407

GILL 2 METHOD HEMATOXYLIN STAIN; GILL HEMATOXYLIN SOLUTION NO II; GILL'S HEMATOXYLIN NO 2; GILL'S HEMATOXYLIN SOLUTION NO 2; GILLS II HAEMATOXYLIN; HEMATOXYLIN STAIN, GILL 2; HEMATOXYLIN SOLUTION GILL NO 2; HEMATOXYLIN, GILL II



LogP: 1.1

LogS: -3.14

Acceptors: 6

Donors: 5

Rotation Bonds: 4

Chiral Centers: 2

N+O: 6

LIPINSKY: 4

Info: Hematoxylin hydrate, high purity biological stain

IUPAC: (4bS,9aR)indano[2,1-c]chroman-1,2,6,7,9a-pentaol

Smiles: c1(ccc2[C@@H]3(c4c(C[C]3(COC2c1O)O)cc(c(c4)O)O))O

Specification: Colours, Dyes, Indicators & Pigments; Cytology Stains Hematology and Histology; Hematology and Histology; Routine Histology Stains Hematoxylin Chemical Properties:

mp 200 C (dec.)(lit.) storage temp. Store at RT. Colour Index 75290 Water Solubility SOLUBLE IN HOT WATER Sensitive Light Sensitive Merck 14,4637 BRN 91399 Stability:Stability Stable, but may discolour on exposure to light. Incompatible with strong oxidizing agents. EPA Substance Registry System Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, (6aS,11bR)-(517-28-2) Safety Information Hazard Codes Xn,Xi Risk Statements 22-36/37/38 Safety Statements 26-36 WGK Germany 2 RTECS MH7875000 HS Code 32030019 Hazardous Substances Data 517-28-2 (Hazardous Substances Data) 7,11b-Dihydrobenz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol English Hematoxylin Usage And Synthesis Chemical Properties:

light brown crystals or powder General Description White to yellowish crystals that redden on exposure to light. Air & Water Reactions Soluble in hot water, slightly water soluble in cold . Reactivity Profile Sensitive to light. . Hematoxylin Raw materials Etanol-->Ethyl acetate-->Methanol-->Diethyl ether-->PETROLEUM ETHER-->Acetone

Merck 13 Reference: Monograph Number: 0004654

Title: Hematoxylin

CAS Registry Number: 517-28-2

CAS Name: cis-(+)-7,11b-Dihydrobenz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol

Additional Names: hematoxiline; hydroxybrazilin; hydroxybrasilin

Molecular Formula: C₁₆H₁₄O₆

Molecular Weight: 302.28.

Percent Composition: C 63.57%, H 4.67%, O 31.76%

Literature References: From the heart-wood of logwood (*Haematoxylon campechianum* Linn., Leguminosae): Chevreul, Ann. Chim. Phys. 82, 54, 126 (1810). Structure: Perkin, Robinson, J. Chem. Soc. 93, 489 (1908). Synthesis: Dann, Hofmann, Angew. Chem. 75, 1125 (1963); Morsingh, Robinson, Tetrahedron 26, 281 (1970); Kirkiacharian, Billet, Bull. Soc. Chim. Fr. 1972, 3292. Stereochemistry: Craig et al., J. Org. Chem. 30, 1573 (1965). Spectroscopic and physico-chemical properties: C. Bettinger, H. W. Zimmerman, Histochemistry 95, 279 (1991). Prepn for staining: R. B. Bosma et al., J. Histotechnol. 16, 371 (1993). Use in deternm of ruthenium: A.-A. Y. El-Sayed, Fresenius J. Anal. Chem. 349, 830 (1994). Review: Robinson, Bull. Soc. Chim. Fr. 1958, 125. Review of theory and application as histological stain: B. B. Hrapchak, Am. J. Med Technol. 42, 371-379 (1976).

Derivative Type: Trihydrate

Properties: White to yellowish crystals; redden on exposure to light, mp 100-120; also stated as 140. Slightly sol in cold water, ether; sol in hot water, hot alc, also in alkali hydroxides, borax, glycerol. Its solns darken on standing.

Melting point: mp 100-120

Use: Chiefly as a stain in microscopy; also in manufacture of ink.