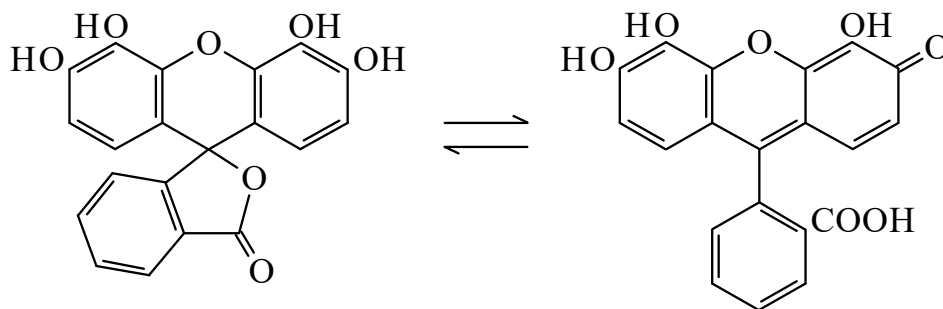




>>Entry Name: Gallein

Synonym(s): 4,5-Dihydroxyfluorescein. 3',4',5',6'-Tetrahydroxyspiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one, 9Cl. 3',4',5',6'-Tetrahydroxyfluoran. C.I. Mordant violet 25. Alizarine violet



CAS Registry Number: 2103-64-2

Molecular Formula: C₂₀H₁₂O₇

Molecular Weight: 364.311

Accurate Mass: 364.058305

Percentage Composition: C 65.94%; H 3.32%; O 30.74%

Use/Importance: Indicator. Used for photometric detn. of In, Sn, Mo, W, Zr, Ge. Biological stain. Used clinically for detn. of PO₄³⁽⁻⁾ in urine. Biological stain

Physical Description: Brownish-red powder or cryst. + 1½ H₂O. Greenish-yellow when anhydrous

Melting Point: Mp 300° (loses H₂O at 180°)

Solubility: Sol. EtOH, alkalis; insol. H₂O, C₆H₆, CHCl₃

pKa Value: p*K*_{a1} 1.8; p*K*_{a2} 6.3

Sigma: G1137

>>Derivative: Me ester

Molecular Formula: C₂₁H₁₄O₇

Molecular Weight: 378.337

Accurate Mass: 378.073955

Percentage Composition: C 66.67%; H 3.73%; O 29.60%

Physical Description: Amorph.

Melting Point: Mp 280°

>>Derivative: Tri-Me ether, Me ester

Molecular Formula: C₂₄H₂₀O₇

Molecular Weight: 420.418

Accurate Mass: 420.120905

Percentage Composition: C 68.57%; H 4.79%; O 26.64%

Melting Point: Mp 199°

References:

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Leong, C.L., *Analyst (London)*, 1970, **95**, 1018, (*detn, Mo*)

Ackermann, G. *et al.*, *Talanta*, 1974, **21**, 431, (*detn, Sn*)

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