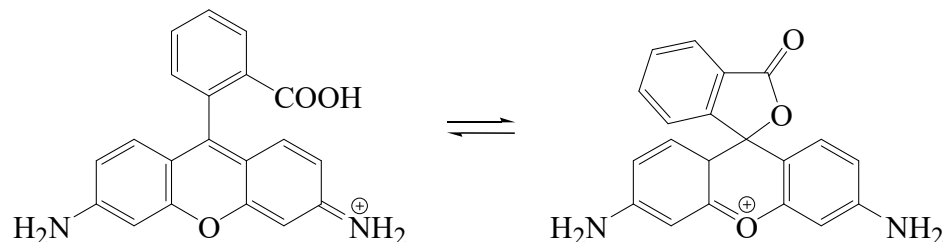




>>Entry Name: Rhodamine 110

Synonym(s): 3,6-Diamino-9-(2-carboxyphenyl)xanthylium(1+), 9Cl. Rhodamine 560



CAS Registry Number: 13558-31-1

Related CAS Registry Numbers(s): 64381-98-2

Extra CAS Registry Numbers(s): 509-72-8 30378-58-6

Molecular Formula: $C_{20}H_{15}N_2O_3^{(+)}$

Molecular Weight: 331.35

Accurate Mass: 331.108268

Percentage Composition: C 72.50%; H 4.56%; N 8.45%; O 14.49%

their impurity and misidentification

Use/Importance: Dye used in tunable lasers

pKa Value: pK_a 5.53

UV: [neutral] λ_{max} 570 () (no solvent reported)

Other Data: Mp >300° (as chloride). CAS no. refers to chloride

>>Derivative: *N,N'*-Di-Et

Synonym(s): 9-(2-Carboxyphenyl)-3,6-bis(ethylamino)xanthylium(1+), 9Cl. Rhodamine G. C.I. Basic Red 8. C.I. 45150

CAS Registry Number: 2768-89-0

Molecular Formula: $C_{24}H_{23}N_2O_3^{(+)}$

Molecular Weight: 387.457

Accurate Mass: 387.170868

Percentage Composition: C 74.40%; H 5.98%; N 7.23%; O 12.39%

Use/Importance: Used in 1mM aq. soln. for extraction-photometric den. of Sb (λ_{max} 530 nm, ϵ 100000, C_6H_6)

Physical Description: Dark red cryst. (MeOH) (as chloride)

Solubility: Sol. H_2O , sl. sol. EtOH

Other Data: CAS no. refers to chloride

>>Derivative: *N,N'*-Di-Et, Et ester

Synonym(s): 9-[2-(Ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)xanthylium(1+), 9Cl. **Rhodamine 6G**‡. Rhodamine 6Zh. C.I. 752

CAS Registry Number: 7325-85-1

Extra CAS Registry Numbers(s): 14899-07-1

Molecular Formula: $C_{26}H_{27}N_2O_3^{(+)}$

Molecular Weight: 415.511

Accurate Mass: 415.202168

Percentage Composition: C 75.16%; H 6.55%; N 6.74%; O 11.55%

Use/Importance: Basic dye. Used in tunable lasers. Used in photometric detn. of Mo

Physical Description: Violet cryst. powder or bronze cryst. (as chloride)

Solubility: Sol. H_2O , EtOH

Other Data: Scarlet-red with green-yellow fluor. in soln. Often confused with the parent Rhodamine 110

>>Derivative: *N,N,N'*-Tri-Et, Et ester

Synonym(s): 3-(Diethylamino)-9-[2-(ethoxycarbonyl)phenyl]-6-(ethylamino)xanthylium(1+), 9Cl. Rhodamine 4G

CAS Registry Number: 6359-21-3

Molecular Formula: $C_{28}H_{31}N_2O_3^{(+)}$

Molecular Weight: 443.565

Accurate Mass: 443.233468

Percentage Composition: C 75.82%; H 7.04%; N 6.32%; O 10.82%

Use/Importance: Basic dye. Used as 1mM aq. soln. for extraction-photometric detn. of Ga (as $GaCl_4^-/C_6H_6$) and extraction-fluorimetric detn. of Te, Ga and In (C_6H_6)

Physical Description: Violet cryst. powder (as chloride)

Solubility: Sol. H_2O , EtOH

Other Data: CAS no. refers to chloride