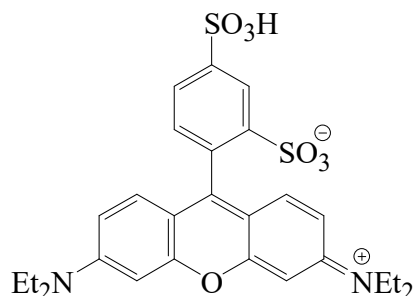




**>>Entry Name: Sulforhodamine B**

**Synonym(s):** 3,6-Bis(diethylamino)-9-(2,4-sulfophenyl)xanthylium hydroxide inner salt, 9Cl. [6-(Diethylamino)-9-(2,4-disulfophenyl)-3*H*-xanthen-3-ylidene] diethylammonium, 8Cl. C.I. Acid Red 52. Food Red 106. Lissamine Rhodamine B. C.I. 45100



**CAS Registry Number:** 2609-88-3

**Molecular Formula:** C<sub>27</sub>H<sub>30</sub>N<sub>2</sub>O<sub>7</sub>S<sub>2</sub>

**Molecular Weight:** 558.675

**Accurate Mass:** 558.149443

**Percentage Composition:** C 58.05%; H 5.41%; N 5.01%; O 20.05%; S 11.48%

**Use/Importance:** Fluorescent dye. Used for wool, nylon, cosmetics, tunable lasers and as a histochemical stain for proteins

**UV:** [neutral]  $\lambda_{\max}$  558 () (no solvent reported)

**>>Derivative:** Na salt

**CAS Registry Number:** 3520-42-1

**Extra CAS Registry Numbers(s):** 53918-45-9

**Molecular Formula:** C<sub>27</sub>H<sub>29</sub>N<sub>2</sub>NaO<sub>7</sub>S<sub>2</sub>

**Molecular Weight:** 580.657

**Accurate Mass:** 580.131385

**Percentage Composition:** C 55.85%; H 5.03%; N 4.82%; Na 3.96%; O 19.29%; S 11.04%

**UV:** [neutral]  $\lambda_{\max}$  554 () (no solvent reported)

**>>Derivative:** 4-Chloride

**>>Derivative:** 4-Anilide

**Molecular Formula:** C<sub>33</sub>H<sub>35</sub>N<sub>3</sub>O<sub>6</sub>S<sub>2</sub>

**Molecular Weight:** 633.788

**Accurate Mass:** 633.196727

**Percentage Composition:** C 62.54%; H 5.57%; N 6.63%; O 15.15%; S 10.12%

**Physical Description:** Violet-brown needles (EtOH aq.)

**Other Data:** Dec. without melting

**References:**

Chadwick, C.S. *et al.*, *Immunology*, 1958, **1**, 315-327, (*chloride, synth, use*)

Ioffe, I.S. *et al.*, *Zh. Obshch. Khim.*, 1962, **32**, 1489-1492, (*chloride, anilide, synth, uv*)

*Colour Index*, 3rd edn., 1971, **4**, 4419, (*synth*)

Gurr, E., *Synthetic Dyes in Biology, Medicine and Chemistry*, Academic Press, 1971, 372-373, (*uv, props*)

Metrione, R.M. *et al.*, *J. Chromatogr.*, 1986, **363**, 337-344, (*chloride, use*)

*Kirk-Othmer Encycl. Chem. Technol.*, 4th edn., Wiley, 1991, **6**, 956; **15**, 20, (*use*)

Konishi, N. *et al.*, *J. Toxicol. Pathol.*, 1992, **5**, 157-165, (*tox*)