



Product Information

5-Sulfosalicylic acid dihydrate

Product Number **S 3147**
Store at Room Temperature

Product Description

Molecular Formula: $C_7H_6O_6S \cdot 2H_2O$
Molecular Weight: 254.2
CAS Number: 5965-83-3
Synonyms: 2-hydroxy-5-sulfobenzoic acid,
3-carboxy-4-hydroxybenzenesulfonic acid¹

This product is designated as Electrophoresis grade and has been tested for use as a fixing solution [3.5% (w/v) in 12% trichloroacetic acid] in polyacrylamide gel electrophoresis (PAGE), SDS-PAGE, and isoelectric focusing (IEF).

5-Sulfosalicylic acid is a reagent that is used as a fixing solution in protein electrophoresis. Industrial applications of this reagent include use as a metal chelating agent, and in the preparation of surface-active agents, organic catalysts, and grease additives.¹

The use of 5-sulfosalicylic acid in the detection of metals in solutions and in samples derived from the solid state has been reported.^{2,3,4} A reversed-phase HPLC protocol for the detection of short chain coenzyme A esters from tissue samples has been published.⁵ 5-sulfosalicylic acid has been used in protein precipitation of plasma samples before HPLC analysis for mitoxantrone and 6-mercaptopurine in plasma.^{6,7}

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a clear, colorless solution. It is also soluble in alcohol, ether, and other polar solvents.¹

Storage/Stability

It is advised to keep this product in well-closed containers and protected from light.¹

References

1. The Merck Index, 12th ed., Entry# 9138.
2. Buchmeiser, M. R., et al., Quantification of lanthanides in rocks using succinic acid-derivatized sorbents for on-line SPE-RP-ion-pair HPLC. *Anal. Chem.*, **72(11)**, 2595-2602 (2000).
3. Turkel, N., and Ozer, U., Salicylic acid derivatives form stable complexes with scandium(III) ion in aqueous solution. *Chem. Pharm. Bull. (Tokyo)*, **48(6)**, 870-872 (2000).
4. Foti, C, et al., Protonation and complex formation of 5-sulfosalicylate in NaCl, CaCl₂ and MgCl₂ aqueous media. *Speciation in synthetic seawater. Ann. Chim.*, **92(5-6)**, 551-562 (2002).
5. Demoz, A., et al., Rapid method for the separation and detection of tissue short-chain coenzyme A esters by reversed-phase high-performance liquid chromatography. *J. Chromatogr. B. Biomed. Appl.*, **667(1)** 148-152 (1995).
6. Slordal, L., et al., A sensitive and simple high-performance liquid chromatographic method for the determination of mitoxantrone in plasma. *Ther. Drug Monit.*, **15(4)**, 328-333 (1993).
7. Warren, D. J., and Slordal, L., A sensitive high-performance liquid chromatographic method for the determination of 6-mercaptopurine in plasma using precolumn derivatization and fluorescence detection. *Ther. Drug Monit.*, **15(1)**, 25-30 (1993).

GCY/RXR 2/03

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.