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# ProductInformation

**5-Sulfosalicylic acid dihydrate**
**Sigma Ultra**

Product Number **S 7422**
Store at Room Temperature

## Product Description

Molecular Formula: $C_7H_6O_6S \bullet 2H_2O$
Molecular Weight: 254.2
CAS Number: 5965-83-3
$\lambda_{max}$: 297 nm
Extinction coefficient: $E^{mM}$ = 2.51 ($NH_4OH$, pH 10.3)
Synonyms: 2-hydroxy-5-sulfobenzoic acid, 3-carboxy-4-hydroxybenzenesulfonic acid[1]

Trace elemental analyses have been performed on the SigmaUltra 5-sulfosalicylic acid. The Certificate of Analysis provides lot-specific results. SigmaUltra 5-sulfosalicylic acid is for applications which require tight control of elemental content.

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, $CaCl_2$ and $MgCl_2$ 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).

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