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ProductInformation

1-Octanol

Product Number **O 4500**
Store at Room Temperature

Product Description

Molecular Formula: $C_8H_{18}O$
Molecular Weight: 130.2
CAS Number: 111-87-5
Boiling Point: 194-195 °C[1]
Density: 0.827 g/ml (20 °C)[1]
Synonym: n-octyl alcohol, octan-1-ol, caprylic alcohol[1]

1-Octanol is a long chain primary alcohol that is used in the manufacture of perfumes and esters.[1] Other manufacturing products include aluminum rolling lubricants and polymerization stabilizers. It is also utilized to produce alkyl amines, tertiary amines, ethoxylates, halides, and mercaptans. 1-Octanol has been used as a solvent for synthesis in biphasic solvents, such as in the bioproduction of 3-methylcatechol.[2]

1-Octanol is commonly utilized in biphasic systems with water to study the partitioning of compounds between organic and aqueous solution phases.[3,4,5] A report on the use of 1-octanol in phase transfer and biological studies of myo-inositol hexakisphosphate across the red blood cell membrane has been published.[6]

A capillary electrophoresis method for the analysis of trans-fatty acids in hydrogenated oils that uses 1-octanol has been published.[7]

Precautions and Disclaimer

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

Preparation Instructions

This product is miscible in ethanol (100 mg/ml, w/v), yielding a clear, colorless solution.

References

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3. Albarghouthi, M. N., et al., Poly-N-hydroxyethylacrylamide (polyDuramide): a novel, hydrophilic, self-coating polymer matrix for DNA sequencing by capillary electrophoresis. Electrophoresis, **23(10)**, 1429-1440 (2002).
4. Hitzel, L., et al., An increased throughput method for the determination of partition coefficients. Pharm. Res., **17(11)**, 1389-1395 (2000).
5. Mrestani, Y., et al., Characterization of partition and thermodynamic properties of cephalosporins using micellar electrokinetic chromatography in glycodeoxycholic acid solution. J. Chromatogr. A, **873(2)**, 237-246 (2000).
6. Vincent, S. P., et al., Transport of the highly charged myo-inositol hexakisphosphate molecule across the red blood cell membrane: a phase transfer and biological study. Bioorg. Med. Chem., **10(9)**, 2825-2834 (2002).
7. De Oliveira, M. A., et al., Method development for the analysis of trans-fatty acids in hydrogenated oils by capillary electrophoresis. Electrophoresis, **24(10)**, 1641-1647 (2003).

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