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Product Information

1-Thioglycerol

Product Number **M 1753**

Storage Temperature 2-8 °C

Product Description

Molecular Formula: C₃H₈O₂S

Molecular Weight: 108.2

CAS Number: 96-27-5

Density: 1.245 g/ml¹

Molarity: 11.5 M (calculated based on density and molecular weight)

Boiling Point: 100-101 °C¹

Synonyms: α-monothioglycerol, thioglycerin, 3-mercapto-1,2-propanediol²

1-Thioglycerol is a reagent that is used in analytical chemistry, materials science, and cell culture research. In mass spectrometry (MS), it is notably used as a matrix substrate in FAB (fast atom bombardment) MS methods.^{3,4} Compounds that have been investigated by FAB-MS using 1-thioglycerol as the FAB-MS matrix include lipids, gangliosides, benzo[a]pyrenes, and iron-siderophore complexes^{5,6,7,8,9}

In materials and biomaterials science, 1-thioglycerol has been used in the preparation of thiol modified gold surfaces for human immunoglobulin binding and of water soluble luminescent CdS quantum dots.^{10,11,12}

Cell culture studies of embryonic cortical and hippocampal neurons, mouse bone marrow mast cell lines, and human B cell lines have utilized 1-thioglycerol as a component of the culture medium to stimulate proliferation.^{13,14,15,16}

Precautions and Disclaimer

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

Preparation Instructions

This product is miscible in ethanol (1 ml/ml, 50%, v/v), yielding a clear, colorless solution. It is also miscible in water (0.1 M).

References

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GCY/NSB 7/03

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