



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Glyceryl trioleate

Product Number **T 7140**

Storage Temperature -20 °C

Product Description

Molecular Formula: $C_{57}H_{104}O_6$

Molecular Weight: 885.5

CAS Number: 122-32-7

Melting Point: -5.5 °C.¹

Boiling Point: 235-240 °C under reduced pressure (8 torr).¹

Density: 0.8988 g/ml (40 °C).¹

Molarity: 1.015 M, based on the density and molecular weight

Synonym: Triolein

The method of preparation involves a chemical synthesis from oleic acid and glycerol, and purification by solvent partition and precipitation methods. Triolein is prepared from oleic acid derived from plant oil.⁴

Triolein is used as a substrate for microbial lipases.^{2,3}

Precautions and Disclaimer

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

Preparation Instructions

Triolein is soluble in chloroform at 100 mg/ml and practically insoluble in water. It is also soluble in ether, carbon tetrachloride, and slightly soluble in alcohol.⁴

Storage/Stability

Solutions of this product should be kept in glass containers. The solvents that dissolve triolein may interact with plastic.

Keep well closed and protected from light. The neat liquid on exposure to air, especially when impure, may oxidize and can acquire a yellow to brown color and a rancid odor.

References

1. CRC Handbook of Chemistry and Physics, 74th Ed., Lide, D.R., ed., CRC Press (Boca Raton, FL: 1993), p. 3-503.
2. Peled, N., and Krenz, M.C., A new assay of microbial lipases with emulsified trioleoyl glycerol. *Anal. Biochem.*, **112**, 219-222 (1981).
3. Junge, W., et al., Influence of colipase on the turbidimetric determination of pancreatic lipase catalytic activity. *J. Clin. Chem. Clin. Biochem.*, **21**, 445-451 (1983).
4. The Merck Index, 12th ed., Entry# 9861.

RLG/JRC 10/02

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.