

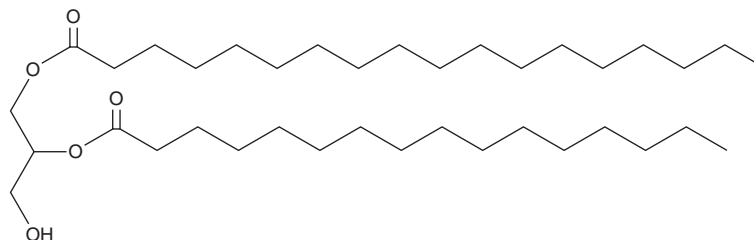
PRODUCT INFORMATION



1-Stearoyl-2-Palmitoyl-*rac*-glycerol

Item No. 25594

CAS Registry No.: 14015-55-5
Formal Name: octadecanoic acid, 3-hydroxy-2-[(1-oxohexadecyl)oxy]propyl ester
Synonym: 1-Stearin-2-Palmitin
MF: C₃₇H₇₂O₅
FW: 597.0
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1-Stearoyl-2-palmitoyl-*rac*-glycerol is supplied as a solid. A stock solution may be made by dissolving the 1-stearoyl-2-palmitoyl-*rac*-glycerol in the solvent of choice, which should be purged with an inert gas. 1-Stearoyl-2-palmitoyl-*rac*-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1-stearoyl-2-palmitoyl-*rac*-glycerol in these solvents is approximately 30, 5, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1-stearoyl-2-palmitoyl-*rac*-glycerol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-stearoyl-2-palmitoyl-*rac*-glycerol in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-Stearoyl-2-palmitoyl-*rac*-glycerol is a diacylglycerol that contains stearic acid (Item No. 10011298) and palmitic acid (Item No. 10006627) at the *sn*-1 and *sn*-2 positions, respectively. It is hydrophobic and has been used, in combination with a surfactant, to increase drug loading and encapsulation efficiency of hydroxypropyl cellulose microcapsules leading to slower drug release in a hydrophilic medium.¹

Reference

1. Kim, K.-S. and Park, S.-J. Influence of glyceryl palmitostearate on release behaviors of hydroxypropyl cellulose microcapsules containing indomethacin by W/O emulsion. *Macromol. Res.* **19(11)**, 1121-1126 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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