

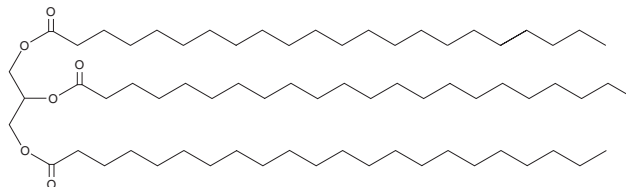
PRODUCT INFORMATION



1,2,3-Tridocosanoyl Glycerol

Item No. 26847

CAS Registry No.: 18641-57-1
Formal Name: docosanoic acid, 1,2,3-propanetriyl ester
Synonyms: Glycerol Tribehenate, Glycerol Tridocosanoate, TG(22:0/22:0/22:0), Tribehenin, Tridocosanoin, Tridocosanoylglycerol
MF: $C_{69}H_{134}O_6$
FW: 1,059.8
Purity: $\geq 95\%$
Supplied as: A crystalline 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

1,2,3-Tridocosanoyl glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2,3-tridocosanoyl glycerol in the solvent of choice. 1,2,3-Tridocosanoyl glycerol is soluble in the organic solvent dimethyl formamide, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml.

Description

1,2,3-Tridocosanoyl glycerol is a triacylglycerol that contains docosanoic acid (Item No. 9000338) at the *sn*-1, *sn*-2, and *sn*-3 positions. Formulations containing 1,2,3-tridocosanoyl glycerol have been used to form the lipid matrices of nanostructured lipid carriers and solid lipid nanoparticles (SLNs).¹⁻³ Formulations containing 1,2,3-tridocosanoyl glycerol have also been used in cosmetic products as thickening and skin-conditioning agents.⁴

References

1. Aburahma, M.H. and Badr-Eldin, S.M. Compritol 888 ATO: A multifunctional lipid excipient in drug delivery systems and nanopharmaceuticals. *Expert Opin. Drug Discov.* **11**(12), 1865-1883 (2014).
2. Almeida, H., Lobão, P., Frigerio, C., *et al.* Preparation, characterization and biocompatibility studies of thermoresponsive eyedrops based on the combination of nanostructured lipid carriers (NLC) and the polymer Pluronic F-127 for controlled delivery of ibuprofen. *Pharm. Dev. Technol.* **22**(3), 336-349 (2017).
3. Wang, T., Xue, J., Hu, Q., *et al.* Preparation of lipid nanoparticles with high loading capacity and exceptional gastrointestinal stability for potential oral delivery applications. *J. Colloid. Interface Sci.* **507**, 119-130 (2017).
4. Johnson, W., Jr. and Cosmetic Ingredient Review Expert Panel. Final report on the safety assessment of trilaurin, triarachidin, tribehenin, tricaprin, tricaprylin, trierucin, triheptanoin, triheptylundecanoin, triisononanoin, triisopalmitin, triisostearin, trilinolein, trimyristin, trioctanoin, triolein, tripalmitin, tripalmitolein, triricinolein, tristearin, triundecanoin, glyceryl triacetyl hydroxystearate, glyceryl triacetyl ricinoleate, and glyceryl stearate diacetate. *Int. J. Toxicol.* **20** (Suppl 4), 61-94 (2001).

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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