

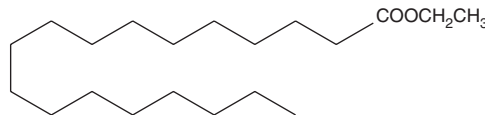
Product Information



Stearic Acid ethyl ester

Catalog No. 10008196

CAS Registry No.: 111-61-5
Formal Name: octadecanoic acid, ethyl ester
Synonyms: Ethyl Octadecanoate; Ethyl Stearate;
NSC 8919
MF: C₂₀H₄₀O₂
FW: 312.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that stearic acid ethyl ester be stored as supplied at -20°C. It should be stable for at least one year.

Stearic acid ethyl ester is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvent such as dimethyl formamide purged with an inert gas can be used. The solubility of stearic acid ethyl ester in this solvent is approximately 30 mg/ml.

Stearic acid ethyl ester is sparingly soluble in aqueous buffers. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent solution into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Stearic acid is a saturated fatty acid commonly found in animal and vegetable fats that is frequently used in cosmetics, candles, soaps, plastics, oil pastels, and for softening rubber. Stearic acid ethyl ester (ethyl stearate) is the neutral, more lipid soluble form of the free acid. It perturbs the cell cycle and induces apoptosis in HepG2 cells and is a marker of excessive alcohol consumption that can be isolated from an individual's hair.^{1,2}

References

1. Aydin, A., Celik, H.A., Deveci, R., *et al.* Induction of apoptosis by fatty acid ethyl esters in HepG2 cells. *Food and Chemical Toxicology* **43**, 139-145 (2005).
2. Hartwig, S., Auwärter, V., and Pragst, F. Fatty acid ethyl esters in scalp, public, axillary, beard and body hair as markers for alcohol misuse. *Alcohol & Alcoholism* **38**(2), 163-167 (2003).

Related Products

Stearoyl Ethanolamide - Cat. No. 90245 • 9-Thiastearic Acid - Cat. No. 10007417 • Fatty Acid ethyl ester Standard-PAK - Cat. No. 10008188 • Myristic Acid ethyl ester - Cat. No. 10008197 • Linoleic Acid ethyl ester - Cat. No. 10008198 • Linolenic Acid ethyl ester - Cat. No. 10008199 • Arachidonic Acid ethyl ester - Cat. No. 10008200 • Oleic Acid ethyl ester - Cat. No. 10008201 • Palmitic Acid ethyl ester - Cat. No. 10008202 • Lauric Acid ethyl ester - Cat. No. 10008203 • Palmitoleic Acid ethyl ester - Cat. No. 10008204

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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