

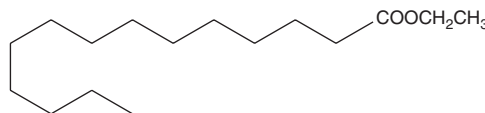
# Product Information



## Myristic Acid ethyl ester

Catalog No. 10008197

**CAS Registry No.:** 124-06-1  
**Formal Name:** tetradecanoic acid, ethyl ester  
**Synonyms:** Ethyl Myristate; Ethyl Tetradecanoate;  
NSC 8917  
**MF:** C<sub>16</sub>H<sub>32</sub>O<sub>2</sub>  
**FW:** 256.4  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

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

Myristic 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. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of myristic acid ethyl ester in these solvents is approximately 20 mg/ml.

Myristic 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.

Myristic acid is a saturated fatty acid commonly found in animal and vegetable fats that is frequently used in cosmetics, soaps, perfumes, and flavorings. It increases low density lipoprotein cholesterol making it one of the most hypercholesterolemic of the saturated fatty acids.<sup>1</sup> Myristic acid ethyl ester is a more hydrophobic form of the free acid. It is a marker of excessive ethanol consumption that can be isolated from the hair of an individual.<sup>2</sup>

### References

1. Hughes, T.A., Heimberg, M., Wang, X., *et al.* Comparative lipoprotein metabolism of myristate, palmitate, and stearate in normolipidemic men. *Metabolism* **45(9)**, 1108-1118 (1996).
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

2-Hydroxymyristic Acid - Cat. No. 90390 • 3-Thiatetradecanoic Acid - Cat. No. 90500 • O-11 - Cat. No. 90510 • Fatty Acid ethyl ester Standard-PAK - Cat. No. 10008188 • Stearic Acid ethyl ester - Cat. No. 10008196 • 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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