

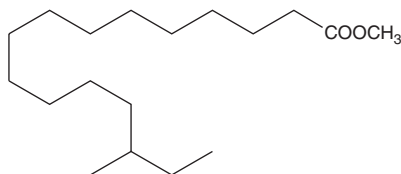
PRODUCT INFORMATION



14-methyl Palmitic Acid methyl ester

Item No. 24821

CAS Registry No.: 2490-49-5
Formal Name: 14-methyl-hexadecanoic acid, methyl ester
Synonyms: Methyl 14-methylhexadecanoate, SFE 18:0
MF: $C_{18}H_{36}O_2$
FW: 284.5
Purity: $\geq 98\%$
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

14-methyl Palmitic acid methyl 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 14-methyl palmitic acid methyl ester in these solvents is approximately 20 mg/ml.

Description

14-methyl Palmitic acid methyl ester is a methylated fatty acid methyl ester that has been found in *A. indica* leaf extract, *S. alboblavus* TD-1, and as a minor component in biodiesel produced from *C. sorokiniana* microalgae.¹⁻³ It is a volatile compound released by maize that reduces growth of *F. verticillioides* in a concentration-dependent manner.⁴ 14-methyl Palmitic acid methyl ester has been used as a standard for the quantification of 14-methyl palmitic acid (Item No. 24820) in various foods by GC-MS.⁵

References

1. Ravi, S., Shanmugam, B., Subbaiah, G.V., *et al.* Identification of food preservative, stress relief compounds by GC-MS and HR-LC/Q-TOF/MS; evaluation of antioxidant activity of *Acalypha indica* leaves methanolic extract (in vitro) and polyphenolic fraction (in vivo). *J. Food Sci. Technol.* **54**(6), 1585-1596 (2017).
2. Wang, Z., Wang, C., Li, F., *et al.* Fumigant activity of volatiles from *Streptomyces alboblavus* TD-1 against *Fusarium moniliforme* Sheldon. *J. Microbiol.* **51**(4), 477-483 (2013).
3. Dong, T., Wang, J., Miao, C., *et al.* Two-step *in situ* biodiesel production from microalgae with high free fatty acid content. *Bioresour. Technol.* **136**, 8-15 (2013).
4. Fauguel, C.M., Campos-Bermudez, V.A., Iglesias, J., *et al.* Volatile compounds released by maize grains and silks in response to infection by *Fusarium verticillioides* and its association with pathogen resistance. *Plant Pathol.* **66**(7), 1128-1138 (2016).
5. Thurnhofer, S. and Vetter, W. Application of ethyl esters and d_3 -methyl esters as internal standards for the gas chromatographic quantification of transesterified fatty acid methyl esters in food. *J. Agric. Food Chem.* **54**(9), 3209-3214 (2006).

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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