

PRODUCT DATA SHEET

Methyl eicosanoate

Catalog number: 1031

Common Name: Methyl arachidate; C20:0
Methyl ester

Source: natural, plant

Solubility: chloroform, ethyl ether

CAS number: 1120-28-1

Molecular Formula: C₂₁H₄₂O₂

Molecular Weight: 327

Storage: room temperature

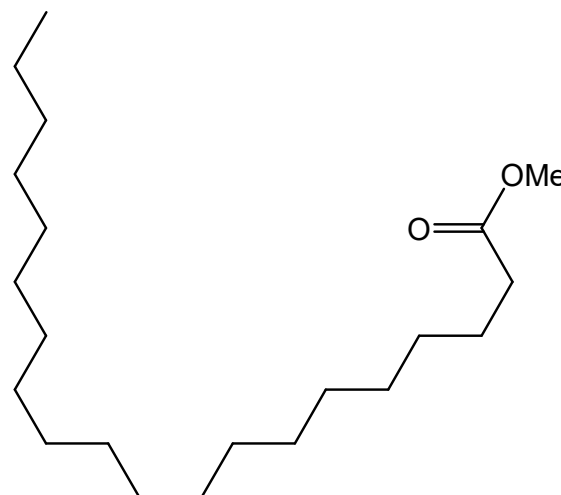
Purity: TLC: 99%, GC: 99%

TLC System: hexane/ethyl ether (90:10)

Appearance: solid

Application Notes:

This high purity fatty acid methyl ester is ideal as a standard and for biological studies. Eicosanoic acid is present in small amounts in many animals and plants. It is a vital intermediate in the formation of other fatty acids and is formed by the elongation of stearic acid, which can then be desaturated to form arachidonic acid and other unsaturated fatty acids. In human amniotic fluid from diabetic humans, sphingomyelin was found not to contain any eicosanoic acid but was found in the amniotic fluid of controls.¹ In the brine shrimp *Artemia franciscana* sphingomyelin has been found to contain a significant amount of eicosanoic acid although this fatty acid in sphingomyelin is rare in other sources.² Eicosanoic acid has been reported as a significant fatty acid in some plants (such as in peanuts and *Sapindaceae*) and in some animals (such as in the copepod *Temora longicornis*). Eicosanoic acid acylated to an amido bile acid has been used to help prevent cholesterol gallstones by acting as a cholesterol solubilizer.³



Selected References:

1. M. Kokatnur, V. Brooks, and W. Plauche "Fatty acids of sphingomyelin from amniotic fluid of normal and diabetic pregnancies" *Lipids*, vol. 20 pp. 449-453, 1985
2. H. Kojima et al. "Biochemical Studies on Sphingolipid of *Artemia franciscana* (I) Isolation and Characterization of Sphingomyelin" *Lipids*, vol. 45 pp. 635-643, 2010
3. T. Gilat et al. "Arachidyl amido cholanoic acid (aramchol) is a cholesterol solubilizer and prevents the formation of cholesterol gallstones in inbred mice" *Lipids*, 36 pp. 1135-1140, 2001

This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of this product by the end user. We believe the information, offered in good faith, is accurate.