

PRODUCT DATA SHEET

Methyl eicosenoate (*cis*-11)

Catalog number: 1033

Common Name: Methyl eicosenoate; C20:1
(*cis*-11) Methyl ester; Methyl
gondoate

Source: natural, plant

Solubility: chloroform, hexane, ethyl ether

CAS number: 2390-09-2

Molecular Formula: C₂₁H₄₀O₂

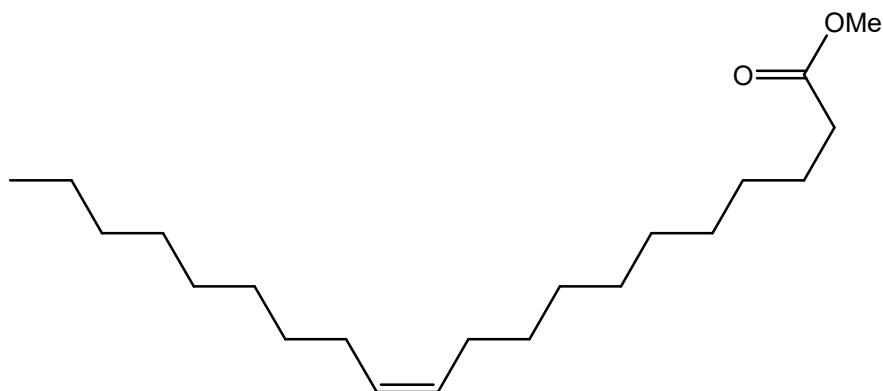
Molecular Weight: 325

Storage: -20°C

Purity: TLC: 99%, GC: 99%

TLC System: hexane/ethyl ether (80:20)

Appearance: liquid



Application Notes:

This product is the methyl ester of the monounsaturated fatty acid eicosenoic acid (*cis*-11) and is ideal as a standard for its identification and comparison to other isomers of eicosenoic acid.¹ Eicosenoic acid (*cis*-11) is formed by the elongation of oleic acid and can then be converted to docosenoic acid and nervonic acid. It is found in many plants and animals in small amounts although in some marine fish it is one of the major fatty acids. Eicosenoic acid (*cis*-11) is found in the membrane of red blood cells and the concentration is higher in children with autism making it an important biomarker.² Eicosenoic acid (*cis*-11) is also found in bone marrow aspirates and phospholipids.³

Selected References:

1. Y. Ando and T. Sasaki "GC Separation of *cis*-Eicosenoic Acid Positional Isomers on an Ionic Liquid SLB-IL100 Stationary Phase" *J Am Oil Chem Soc*, vol. 88 pp. 743-748, 2011
2. L. Jin et al. "Fatty acid compositions of red blood cell phospholipids in children with autism" *Prostaglandins Leukot Essent Fatty Acids*, vol. 74 pp. 215-221, 2006
3. S. Nozawa et al. "Analysis of fatty acid composition in human bone marrow aspirates" *Keio J Med*, vol. 54 pp. 150-155, 2005

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