

## PRODUCT DATA SHEET

### Methyl octadecenoate (*cis*-9)

**Catalog No:** 1023

**Common Name:** Methyl oleate; C18:1 (*cis*-9)  
Methyl ester

**Source:** natural, plant

**Solubility:** chloroform, hexane, ethyl ether

**CAS No:** 112-62-9

**Molecular Formula:** C<sub>19</sub>H<sub>36</sub>O<sub>2</sub>

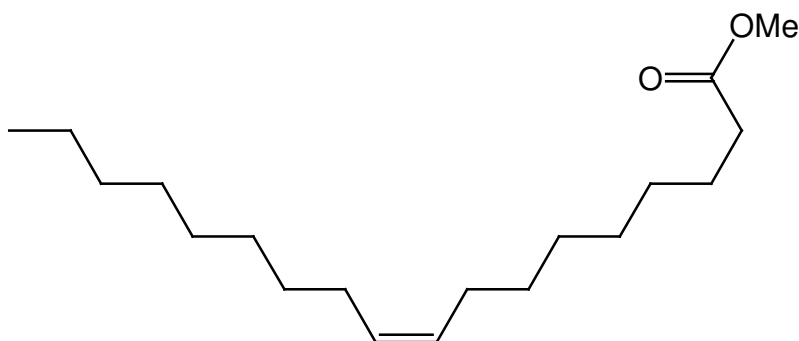
**Molecular Weight:** 296

**Storage:** -20°C

**Purity:** TLC >99%, GC >99%

**TLC System:** hexane/ethyl ether (85:15)

**Appearance:** liquid



### **Application Notes:**

This product is a high purity unsaturated methyl ester fatty acid that is ideal as a standard for gas chromatography. Oleic acid is the most abundant natural monounsaturated fatty acid in plants and animals. Oleic acid and linoleic acid can modulate some of the functions of neutrophils, thereby influencing the inflammatory process.<sup>1</sup> It inhibits protein kinase C activity in lymphocytes, the release of myeloperoxidase, and the chemotaxis of human neutrophils. It can promote necrosis and apoptosis of human lymphocytes and it has been associated with a reduction in cardiovascular disease,<sup>2</sup> rheumatoid arthritis and a variety of cancers.<sup>3</sup> Oleic acid has been demonstrated to be responsible for reducing blood pressure when consumed as a dietary source.<sup>4</sup> It is an insect pheromone that is released when the insect dies and is a component of pheromones used by other animals. Oleic acid and phosphatidylethanolamine form oleoylethanolamide which has various biological functions such as anorexigenic and body fat loss properties.

### **Selected References:**

1. H. Rodrigues et al. "Dietary Free Oleic and Linoleic Acid Enhances Neutrophil Function and Modulates the Inflammatory Response in Rats" *Lipids*, Vol. 45 pp. 809-819, 2010
2. L. Gillingham et al. "Dietary Monounsaturated Fatty Acids Are Protective Against Metabolic Syndrome and Cardiovascular Disease Risk Factors" *Lipids*, Vol. 46 pp. 209-228, 2011
3. E. Waterman and B. Lockwood "Active components and clinical applications of olive oil." *Altern Med Rev*, Vol. 12 pp. 331-342, 2007
4. S. Teres et al. "Oleic acid content is responsible for the reduction in blood pressure induced by olive oil" *Proc Natl Acad Sci USA*, Vol. 105(37) pp. 13811-13816, 2008

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