

## PRODUCT DATA SHEET

### Methyl heneicosanoate

**Catalog number:** 1242

**Common names:** C21:0 Methyl ester;  
Heneicosylate

**Source:** synthetic

**Solubility:** chloroform, ethyl ether

**CAS number:** 6064-90-0

**Molecular Formula:** C<sub>22</sub>H<sub>44</sub>O<sub>2</sub>

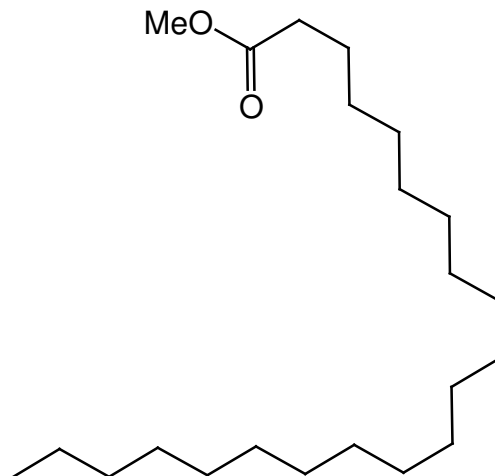
**Molecular Weight:** 341

**Storage:** room temperature

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

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

**Appearance:** solid



### **Application Notes:**

This odd numbered long-chain fatty acid methyl ester is unusual in many biological systems and is therefore often useful as an internal standard or biomarker. Heneicosanoic acid is found in small amounts in mammalian milk and is present in the articular cartilage boundary lubricant<sup>1</sup> and red blood cell fatty acids<sup>2</sup>. It is also present in small amounts in various microorganisms<sup>3</sup> and can aid in their identification by the comparison of their lipid profiles. Heneicosanoic acid, along with other long chain fatty acids, shows significant inhibitory effects towards human p53 DNA binding domain.<sup>4</sup>

### **Selected References:**

1. A. Sarma et al. "Phospholipid composition of articular cartilage boundary lubricant" *J Orthop Res.*, vol. 19 pp. 671-676, 2001
2. A. Moser et al. "Plasma and red blood cell fatty acids in peroxisomal disorders" *Neurochem Res.*, vol. 24 pp. 187-197, 1999
3. N. Carballeira et al. "Unusual Lipid Composition of a *Bacillus* sp. Isolated from Lake Pomorie in Bulgaria" *Lipids*, vol. 35 pp. 1371-1376, 2000
4. H. Iijima et al. "The Inhibitory Action of Long-Chain Fatty Acids on the DNA Binding Activity of p53" *Lipids*, vol. 41 pp. 521-527, 2006

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