

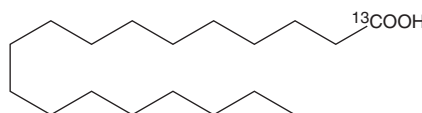
# PRODUCT INFORMATION



## Stearic Acid-<sup>13</sup>C

Item No. 28917

CAS Registry No.: 85541-42-0  
Formal Name: octadecanoic-1-<sup>13</sup>C acid  
Synonyms: C<sub>18</sub>:O-<sup>13</sup>C, Octadecanoic Acid-<sup>13</sup>C  
MF: C<sub>17</sub>[<sup>13</sup>C]H<sub>36</sub>O<sub>2</sub>  
FW: 285.5  
Purity: ≥95%  
Supplied as: A crystalline solid  
Storage: -20°C  
Stability: ≥4 years



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

### Laboratory Procedures

Stearic acid-<sup>13</sup>C is supplied as a crystalline solid. A stock solution may be made by dissolving the stearic acid-<sup>13</sup>C in the solvent of choice, which should be purged with an inert gas. Stearic acid-<sup>13</sup>C is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of stearic acid-<sup>13</sup>C in these solvents is approximately 20, 10, and 30 mg/ml, respectively.

### Description

Stearic acid-<sup>13</sup>C is intended for use as an internal standard for the quantification of stearic acid (Item No. 10011298) by GC- or LC-MS. Stearic acid is a long-chain saturated fatty acid. It is a major component of cocoa butter and has also been found in beef fat and vegetable oils.<sup>1-3</sup> Unlike many long-chain saturated fatty acids, dietary stearic acid does not induce hypercholesterolemia or raise LDL-cholesterol.<sup>4</sup>

### References

1. Chuparova, E., Chobanov, D., and Popov, A. Quantitative analysis of fatty acids by liquid-partition chromatography. *Izv. Inst. Org. Khim. Bulgar. Akad. Nauk* **2**, 31-35 (1965).
2. Westerling, D.B. and Hedrick, H.B. Fatty acid composition of bovine lipids as influenced by diet, sex and anatomical location and relationship to sensory characteristics. *J. Anim. Sci.* **48(6)**, 1343-1348 (1979).
3. Demirbaş, A. Chemical and fuel properties of seventeen vegetable oils. *Energy Sources* **25(7)**, 721-728 (2003).
4. Grundy, S.M. Influence of stearic acid on cholesterol metabolism relative to other long-chain fatty acids. *Am. J. Clin. Nutr.* **60(Suppl 6)**, 986S-990S (1994).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897  
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM