

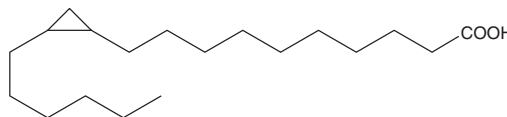
# PRODUCT INFORMATION



## Phytomonic Acid

Item No. 10012556

CAS Registry No.: 503-06-0  
Formal Name: 2-hexyl-cyclopropanedecanoic acid  
Synonyms: FA 19:1, Lactobacillic Acid  
MF:  $C_{19}H_{36}O_2$   
FW: 296.5  
Purity:  $\geq 98\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 1$  year



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

### Laboratory Procedures

Phytomonic acid is supplied as a solid. A stock solution may be made by dissolving the phytomonic acid in the solvent of choice, which should be purged with an inert gas. Phytomonic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of phytomonic acid in ethanol is approximately 35 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Phytomonic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, phytomonic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Phytomonic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Phytomonic acid is a saturated fatty acid found mainly in a gram-negative bacteria, *L. arabinosus*,<sup>1</sup> but also in protozoa and in the seed oil of *B. coccineus* (Connaraceae).<sup>2</sup> Its cyclopropane ring structure has some properties of a double bond, and it may serve to regulate cell membrane fluidity.<sup>3</sup>

### References

1. Hofmann, K. and Tausig, F. On the identity of phytomonic and lactobacillic acids. A reinvestigation of the fatty acid spectrum of agrobacterium (phytomonas) tumefaciens. *J. Biol. Chem.* **213**, 425-432 (1954).
2. Spencer, G.F., Payne-Wahl, K., Plattner, R.D., *et al.* Lactobacillic and methyl-branched olefinic acids in *Byrsocarpus coccineus* seed oil. *Lipids* **14(1)**, 72-74 (1978).
3. Teixeira, H., Gonçalves, M.G., Rozès, N., *et al.* Lactobacillic acid accumulation in the plasma membrane of *Oenococcus oeni*: A response to ethanol stress? *Microb. Ecol.* **43**, 146-153 (2002).

#### 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.

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