

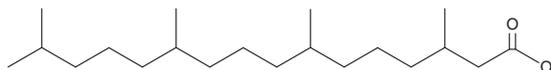
# PRODUCT INFORMATION



## Phytanic Acid

Item No. 90360

**CAS Registry No.:** 14721-66-5  
**Formal Name:** 3,7,11,15-tetramethyl-hexadecanoic acid  
**Synonym:** NSC 108698  
**MF:** C<sub>20</sub>H<sub>40</sub>O<sub>2</sub>  
**FW:** 312.5  
**Purity:** ≥96%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

Phytanic acid is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of phytanic acid in these solvents is approximately 100 mg/ml.

Phytanic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of phytanic acid should be diluted with the aqueous buffer of choice. Phytanic acid has a solubility of 1 mg/ml in a 0.15 M Tris-HCl (pH 8.5) solution using this method. Therefore, further dilutions of the organic solvent solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Phytanic acid is a saturated 20-carbon branched-chain fatty acid which can only be derived from dietary sources. In cases of peroxisomal disorders, elevated levels of phytanic acid have been observed, and this is linked to diseases such as infantile phytanic acid storage disease and Refsum's disease.<sup>1</sup>

### Reference

1. Wanders, R.J.A., Boltshauser, E., Steinmann, B., *et al.* Infantile phytanic acid storage disease, a disorder of peroxisome biogenesis: A case report. *J. Neurol. Sci.* **98**, 1-11 (1990).

**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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