

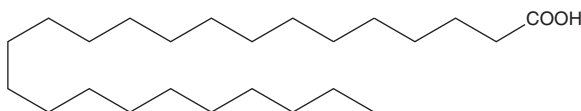
# PRODUCT INFORMATION



## Lignoceric Acid

Item No. 13353

**CAS Registry No.:** 557-59-5  
**Formal Name:** tetracosanoic acid  
**Synonyms:** C24:0, FA 24:0  
**MF:** C<sub>24</sub>H<sub>48</sub>O<sub>2</sub>  
**FW:** 368.6  
**Purity:** ≥98%  
**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

Lignoceric acid is supplied as a crystalline solid. A stock solution may be made by dissolving the lignoceric acid in the solvent of choice, which should be purged with an inert gas. Lignoceric acid is soluble in organic solvents such as chloroform and THF. The solubility of lignoceric acid in these solvents is approximately 2 and 5 mg/ml, respectively.

### Description

Lignoceric acid is a 24-carbon saturated (24:0) fatty acid. In mammals, it is synthesized during brain development and is found in cerebroside.<sup>1</sup> The deficient peroxisomal oxidation of very-long-chain fatty acids, including lignoceric acid, contributes to certain syndromes, including Zellweger cerebro-hepato-renal syndrome and X chromosome-linked adrenoleukodystrophy.<sup>2</sup> Lignoceric acid is also a by-product of lignin production.

### References

1. Bourre, J.-M., Paturneau-Jouas, M.Y., Daudu, O.L., *et al.* Lignoceric acid biosynthesis in the developing brain. Activities of mitochondrial acetyl-CoA-dependent synthesis and microsomal malonyl-CoA chain-elongating system in relation to myelination. *Eur. J. Biochem* **72(1)**, 41-47 (1977).
2. Singh, I., Moser, A.E., Goldfischer, S., *et al.* Lignoceric acid is oxidized in the peroxisome: Implications for the Zellweger cerebro-hepato-renal syndrome and adrenoleukodystrophy. *Proc. Natl. Acad. Sci. USA* **81(13)**, 4203-4207 (1984).

#### 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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#### 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](http://WWW.CAYMANCHEM.COM)