# **PRODUCT** INFORMATION



12-hydroxy Lauric Acid

Item No. 28494

CAS Registry No.:	505-95-3
Formal Name:	12-hydroxy-dodecanoic acid
Synonyms:	ω-hydroxy Lauric Acid, FA 12:0;O,
	NSC 159293, NSC 664211
MF:	C <sub>12</sub> H <sub>24</sub> O <sub>3</sub>
FW:	216.3
Purity:	≥95% OH
Supplied as:	A 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

12-hydroxy Lauric acid is supplied as a solid. A stock solution may be made by dissolving the 12-hydroxy lauric acid in the solvent of choice, which should be purged with an inert gas. 12-hydroxy Lauric acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 12-hydroxy lauric acid in these solvents is approximately 15, 10, and 3 mg/ml, respectively.

12-hydroxy Lauric acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 12-hydroxy lauric acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 12-hydroxy Lauric acid has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

12-hydroxy Lauric acid is a hydroxylated fatty acid that has been found in honey bee royal jelly.<sup>1</sup> It is active against S. aureus, B. subtilis, B. cereus, E. coli, and P. aeruginosa bacteria (MICs = 6.25-125 µg/ml) and the fungus C. albicans (MIC =  $15.63 \mu g/ml$ ).

## Reference

1. Isidorov, W., Witkowski, S., Zambrzycka, M., et al. Royal jelly aliphatic acids contribute to antimicrobial activity of honey. J. Apic. Sci. 62(1), 111-123 (2018).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFFTY DATA

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.

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/25/2024

## 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