3-hydroxy Palmitic Acid methyl ester
Item No. 20108

CAS Registry No.: 51883-36-4
Formal Name: 3-hydroxy-hexadecanoic acid, methyl ester
Synonyms: 3-hydroxy PAME, 3-hydroxy PA methyl ester
MF: \( \text{C}_{17}\text{H}_{34}\text{O}_3 \)
FW: 286.5
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \): 209 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

3-hydroxy Palmitic acid methyl ester (3-hydroxy PAME) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-hydroxy PAME in the solvent of choice. 3-hydroxy PAME is soluble in organic solvents such as ethanol, which should be purged with an inert gas. The solubility of 3-hydroxy PAME in this solvent is approximately 0.5 mg/ml.

3-hydroxy PAME is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3-hydroxy PAME should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 3-hydroxy PAME 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

3-hydroxy PAME is an esterized long-chain fatty acid involved in quorum sensing in \( \text{R. solanacearum} \), a bacteria that causes lethal wilting in plants.\(^1\) 3-hydroxy PAME (175 nM) increases levels of PhcA-regulated virulence factors, greater than 20-, 30-, and 25-fold for EPS I, EGL, and PME, respectively, in the AW1-83 strain of \( \text{R. solanacearum} \).\(^2\)

References