

Product Data Sheet

Product Name: Nonanoic Acid

Cat. No.: GC47790

Chemical Properties

Cas. No. 112-05-0

SMILES OC(CCCCCCCC)=O

Formula C₉H₁₈O₂

M.Wt 158.2

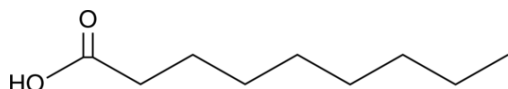
Solubility Chloroform: 2.5 mg/mL

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Nonanoic acid is a medium-chain saturated fatty acid. It is a volatile compound that has been found in raw and roasted pecans.¹ Nonanoic acid inhibits mycelial growth and spore germination in the plant pathogenic fungi *M. roleri* and *C. perniciosus* in a concentration-dependent manner.² It has herbicidal activity against a variety of species, including crabgrass.^{3,4} Nonanoic acid has been used as an internal standard for the quantification of free fatty acids in olive mill waste waters.⁵ Formulations containing nonanoic acid have been used in indoor and outdoor weed control and as cleansing and emulsifying agents in cosmetics.

1. Gong, Y., Kerrihard, A.L., and Pegg, R.B. Characterization of the volatile compounds in raw and roasted Georgia pecans by HS-SPME-GC-MSJ. *Food Sci.* 83(11)2753-2760(2018) 2. Aneja, M., Gianfagna, T.J., and Hebbar, P.K. *Trichoderma harzianum* produces nonanoic acid, an inhibitor of spore germination and mycelial growth of two cacao pathogens *Physiol. Mol. Plant Pathol.* 67(6)304-307(2005) 3. Fukuda, M., Tsujino, Y., Fujimori, T., et al. Phytotoxic activity of middle-chain fatty acids I: Effects on cell constituents *Pesticide Biochem. Physiol.* 80(3)143-150(2004) 4. Miller, T.W. Natural herbicides and amendments for organic weed control *Crop protection products for organic*

Caution: Product has not been fully validated for medical applications. For research use only.

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agriculture947174-185(2007) 5.Procida, G., and Ceccon, L.Gas chromatographic determination of
free fatty acids in olive mill waste watersAnal. Chim. Acta561(1-2)103-106(2006)

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