

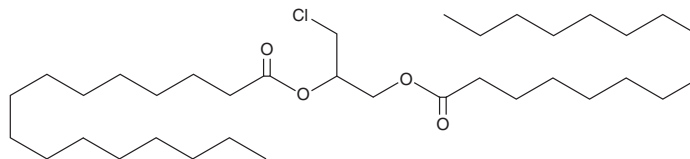
# PRODUCT INFORMATION



## *rac*-1,2-bis-Palmitoyl-3-chloropropanediol

Item No. 9003677

**CAS Registry No.:** 51930-97-3  
**Formal Name:** hexadecanoic acid, 1,1'-[1-(chloromethyl)-1,2-ethanediyl] ester  
**Synonyms:** *rac*-3-Chloro-1,2-propandiol Dipalmitate, PP-3-MCPD  
**MF:** C<sub>35</sub>H<sub>67</sub>ClO<sub>4</sub>  
**FW:** 587.4  
**Purity:** ≥95%  
**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

*rac*-1,2-bis-Palmitoyl-3-chloropropanediol is supplied as a solid. A stock solution may be made by dissolving the *rac*-1,2-bis-palmitoyl-3-chloropropanediol in the solvent of choice, which should be purged with an inert gas. *rac*-1,2-bis-Palmitoyl-3-chloropropanediol is slightly soluble in chloroform and ethyl acetate.

### Description

*rac*-1,2-bis-Palmitoyl-3-chloropropanediol is a 3-monochloropropane-1,2-diol (3-MCPD) ester.<sup>1</sup> It has been found as a contaminant in edible olive oils, with the lowest and highest concentrations in extra virgin and olive pomace oils, respectively. *rac*-1,2-bis-Palmitoyl-3-chloropropanediol has also been found in cottonseed and palm oils, as well as in shortening.<sup>2</sup> It induces renal tubular necrosis and a decrease in spermatids, but no gross pathological changes, in mice.<sup>3</sup>

### References

1. Hung, W.-C., Peng, G.-J., Tsai, W.-J., *et al.* Identification of 3-MCPD esters to verify the adulteration of extra virgin olive oil. *Food Addit. Contam. Part B Surveill.* **10(3)**, 233-239 (2017).
2. MacMahon, S., Begley, T.H., and Diachenko, G.W. Occurrence of 3-MCPD and glycidyl esters in edible oils in the United States. *Food Addit. Contam. Part A. Chem. Anal. Control Expo. Risk Assess.* **30(12)**, 2081-2092 (2013).
3. Liu, M., Gao, B.-Y., Qin, F., *et al.* Acute oral toxicity of 3-MCPD mono- and di-palmitic esters in Swiss mice and their cytotoxicity in NRK-52E rat kidney cells. *Food Chem. Toxicol.* **50(10)**, 3785-3791 (2012).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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