Mono-, Di-, and Tristearoylglycerol Analysis on Agilent PLgel by GPC

Application Note

Materials Testing and Research, Polymers

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Introduction

Stearoylglycerols are esters of glycerol and stearic acid. They can be produced as stable intermediates during the microbial metabolism of vegetable oils and animal fats. Microbial transformation of natural oils is used in the search for commercially valuable compounds.

Analysis of stearoylglycerols is straightforward using gel permeation chromatography (GPC) with Agilent PLgel columns.

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Analysis of Stearoylglycerols

GPC with an Agilent PLgel 5 µm 50Å column separates mono-, di, and tristearoylglycerol from stearic acid in less than 16 minutes (Figure 1).

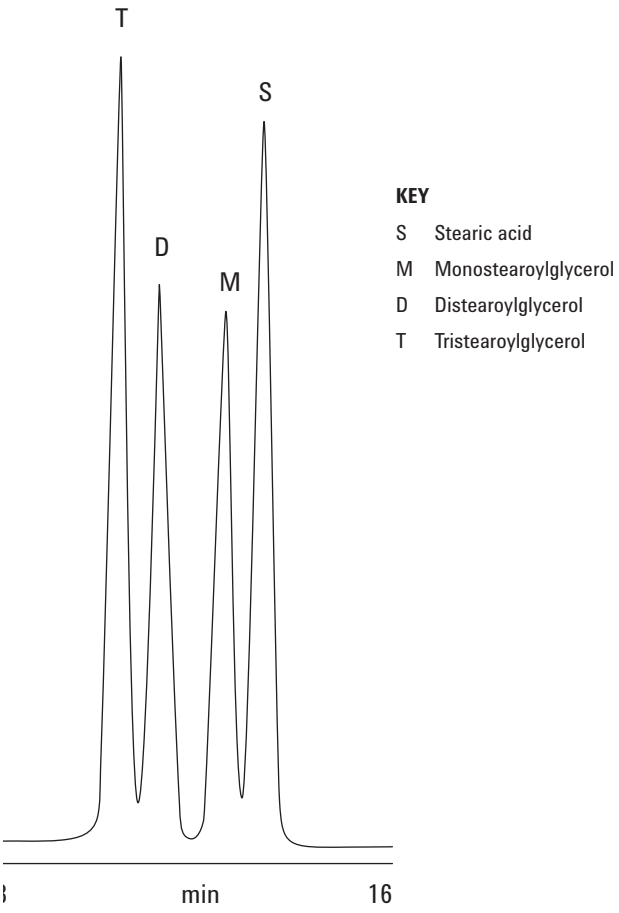

Figure 1. Stearoylglycerols separated on an Agilent PLgel 5 µm column.

Conditions

Column	Agilent PLgel 5 µm 50Å, 300 × 7.5 mm (p/n PL1110-6515)
Eluent	THF
Flow rate	0.5 mL/min
Detector	RI
System	Agilent PL-GPC 50

Conclusion

Low-pore-size PLgel columns are well suited to the separation of complex esters produced by metabolic processes.

Acknowledgment

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For More Information

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