

# PRODUCT DATA SHEET

## RM-4 Mixture (AOCS) (quantitative)

Suitable standard for olive, teaseed, and neatsfoot oils

**Catalog number:** 1087

**Solvent:** none

**Storage:** -20°C

**Concentration:** neat

**Source:** synthetic and plant

**GC Conditions:**

**Column:** SP-2330, 30 x 0.25mm x 0.2µm

**Oven:** 170°C isothermal

**Carrier:** helium @ 20cm/sec.

**Detector:** FID, 200°C

**Injector:** 250°C

Elution Order	Carbon Number	Component Name	% Conc. by weight
1	C16:0	Methyl hexadecanoate; (palmitate)	11.0
2	C18:0	Methyl octadecenoate; (stearate)	3.0
3	C18:1 ( <i>cis</i> -9)	Methyl octadecenoate ( <i>cis</i> -9); (oleate)	80.0
4	C18:2 (all <i>cis</i> -9,12)	Methyl octadecadienoate (all <i>cis</i> -9,12); (linoleate)	6.0

### Application Notes:

This fatty acid reference mixture contains saturated and mono and polyunsaturated fatty acid methyl esters for the qualitative identification and quantitation of unknowns. This AOCS RM mixture is especially ideal as a standard for olive, teaseed, and neatsfoot oils. By studying problems with the quantitative analysis of animal and vegetable oils and fats, the American Oil Chemists' Society has found certain mixtures to be useful as reference standards. The composition of each mixture is similar to the fatty acid distribution of certain oils. This is an excellent standard for identifying unknown fatty acid isomers in samples.

All materials are analyzed to verify their identity and to determine their purity. All analytes are 98% pure. This standard is accurately prepared by gravimetric technique (+/- 0.5%) and all glassware is class A rated. Ampules are purged with nitrogen/argon before and after filling and chilled before being flame sealed. Store ampules sealed as received and process without delay immediately after opening the ampule.

### Selected References:

1. M. Or-Rashid, N. Odongo and B. McBride, "Fatty acid composition of ruminal bacteria and protozoa, with emphasis on conjugated linoleic acid, vaccenic acid, and odd-chain and branched-chain fatty acids" *Journal of Animal Science* vol. 85 pp. 1228, 2007
2. Y-M Zhang, S. White, and C. Rock "Inhibiting Bacterial Fatty Acid Synthesis" *The Journal of Biological Chemistry* vol. 281 pp. 17541, 2006
3. N. Rozès, S. Garbay, M. Denayrolles, A. Lonvaud-Funel "A rapid method for the determination of bacterial fatty acid composition" *Applied Microbiology* vol. 3(17) pp. 126, 1993

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