

# PRODUCT DATA SHEET

## RM-6 Mixture (AOCS)

Suitable standard for lard, beef tallow, mutton tallow, and palm oil

**Catalog number:** 1089

**Solvent:** none

**Storage:** -20°C

**Concentration:** neat

**Quantity:** 50mg

**Source:** synthetic or plant

**GC Conditions:**

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

**Oven:** 180°C (isothermal)

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

**Detector:** FID, 250°C

**Injector:** 250°C

Elution Order	Carbon Number	Component Name	% Conc. by weight
1	C14:0	Methyl tetradecanoate (myristate)	2.0
2	C16:0	Methyl hexadecanoate (palmitate)	30.0
3	C16:1	Methyl hexadecenoate <i>cis</i> -9 (palmitoleate)	3.0
4	C18:0	Methyl octadecanoate (stearate)	14.0
5	C18:1	Methyl octadecenoate <i>cis</i> -9 (oleate)	41.0
6	C18:2	Methyl all octadecadienoate <i>cis</i> -9,12 (linoleate)	7.0
7	C18:3	Methyl all octadecatrienoate <i>cis</i> -9,12,15 (linolenate)	3.0

### Application Notes:

This fatty acid reference mixture contains saturated, mono and poly-unsaturated fatty acid methyl esters for the qualitative identification and quantitation of samples. This AOCS reference mixture is especially ideal as a standard for lard, beef tallow, mutton tallow, and palm 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 99% 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. Z. Li, T. Gu, B. Kelder and J. J. Kopchick "Analysis of fatty acids in mouse cells using reversed-phase high-performance liquid chromatography" *Chromatographia*, Oct. Vol. 54 pp. 463-467 2001
2. L. D. Metcalfe, A. A. Schmitz, J. R. Pelka "The Rapid Preparation of Fatty Acid Esters from Lipids for Gas Chromatographic Analysis" *Analytical Chemistry*, March, Vol. 38(3) pp. 514-515 1966

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