

PRODUCT DATA SHEET

FIM-FAME-7 Mixture (quantitative)

Catalog No: 2010

Solvent: Methylene chloride

Storage: -20°C

Column: SP-2560, 100m x 0.25mm x 0.2µm

Oven: 100°C (hold 5 min.) to 230°C @
5°C/min. (hold 19 min.)

Carrier: Helium @ 20cm/sec.

Detector: FID, 250 °C

Injector: 250°C

Elution Order	Carbon Number	COMPONENT NAME	Elution Order	Carbon Number	COMPONENT NAME
1	C4:0	Methyl tetraoate, (butyrate)	20	C18:2	Methyl octadecadienoate (all <i>cis</i> -9,12), (linoleate)
2	C6:0	Methyl hexanoate (caproate)	21	C20:0	Methyl eicosanoate (arachidate)
3	C8:0	Methyl octanoate (caprylate)	22	C18:3	Methyl octadecatrienoate (all <i>cis</i> -6,9,12), (<i>gamma</i> -linolenate)
4	C10:0	Methyl decanoate (caprate)	23	C20:1	Methyl eicosenoate (<i>cis</i> -11), (gondoate)
5	C11:0	Methyl undecanoate (hendecanoate)	24	C18:3	Methyl octadecatrienoate (all <i>cis</i> -9,12,15), (linolenate)
6	C12:0	Methyl dodecanoate (laurate)	25	C21:0	Methyl heneicosanoate
7	C13:0	Methyl tridecanoate	26	C20:2	Methyl eicosadienoate (all <i>cis</i> -11,14)
8	C14:0	Methyl tetradecanoate (myristate)	27	C22:0	Methyl docosanoate (behenate)
9	C14:1	Methyl tetradecenoate (<i>cis</i> -9), (myristoleate)	28	C20:3	Methyl eicosatrienoate (all <i>cis</i> -8,11,14), (<i>homogamma</i> -linolenate)
10	C15:0	Methyl pentadecanoate	29	C22:1	Methyl docosenoate (<i>cis</i> -13), (erucate)
11	C15:1	Methyl pentadecenoate (<i>cis</i> -10)	30	C20:3	Methyl eicosatrienoate (all <i>cis</i> -11,14,17)
12	C16:0	Methyl hexadecanoate (palmitate)	31	C20:4	Methyl eicosatetraenoate (all <i>cis</i> -5,8,11,14), (arachidonate)
13	C16:1	Methyl hexadecenoate (<i>cis</i> -9), (palmitoleate)	32	C23:0	Methyl tricosanoate
14	C17:0	Methyl heptadecanoate (margarate)	33	C22:2	Methyl docosadienoate (all <i>cis</i> -13,16)
15	C17:1	Methyl heptadecenoate (<i>cis</i> -10)	34	C24:0	Methyl tetracosanoate (lignocerate)
16	C18:0	Methyl octadecanoate (stearate)	35	C20:5	Methyl eicosapentaenoate (all <i>cis</i> -5,8,11,14,17)
17	C18:1	Methyl octadecenoate (<i>trans</i> -9), (elaidate)	36	C24:1	Methyl tetracosenoate (<i>cis</i> -15), (nervonate)
18	C18:1	Methyl octadecenoate (<i>cis</i> -9), (oleate)	37	C22:6	Methyl docosahexaenoate, (all <i>cis</i> -7,10,13,16,19)
19	C18:2	Methyl octadecadienoate (all <i>trans</i> -9,12), (linoelaidate)			

Application notes:

This fatty acid methyl ester mixture contains 37 fatty acids for the identification and quantification of unknowns.¹ It is prepared from high purity stock ester material and contains saturated and unsaturated fatty acids. This mixture is very useful for bacterial identification,² triglyceride determination and the analysis of various plant and animal lipids.³ Understanding the role of fatty acids and fatty acid metabolism in plants and animals is important in drug development.

Selected References:

1. T. Murata "Analysis of fatty acid methyl esters by a gas-liquid chromatography-chemical ionization mass spectrometry computer system" *Journal of Lipid Research*, Vol. 19:166, 1978
2. N. Rozès et al. "A rapid method for the determination of bacterial fatty acid composition" *Applied Microbiology*, Vol. 3:17 pp.126, 1993
3. D. Welch "Applications of cellular fatty acid analysis" *Clinical Microbiology Reviews*, Vol. 4:4 pp. 422, 1991

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