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

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 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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