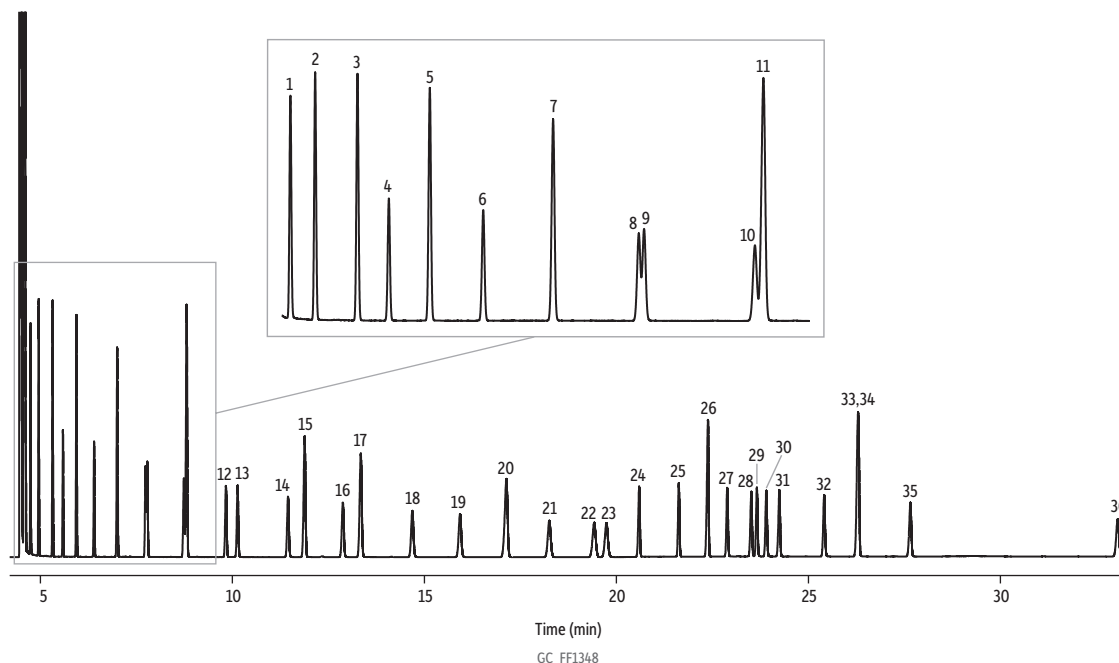


Food Industry FAMES on Rt-2560 by AOCs Method Ce-1j-07 Using H₂ (Optimized Method)



Peaks	t _r (min)	Conc. (µg/mL)	Structural Nomenclature
1. Methyl caproate	4.740	400	C6:0
2. Methyl octanoate	4.953	400	C8:0
3. Methyl decanoate	5.317	400	C10:0
4. Methyl undecanoate	5.587	200	C11:0
5. Methyl dodecanoate	5.939	400	C12:0
6. Methyl tridecanoate	6.398	200	C13:0
7. Methyl myristate	6.998	400	C14:0
8. Methyl myristoleate	7.736	200	C14:1 (c9)
9. Methyl pentadecanoate	7.781	200	C15:0
10. Methyl pentadecenoate	8.734	200	C15:1 (C10)
11. Methyl palmitate	8.806	600	C16:0
12. Methyl palmitoleate	9.831	200	C16:1 (c9)
13. Methyl heptadecanoate	10.136	200	C17:0
14. Methyl heptadecenoate	11.448	200	C17:1 (c10)
15. Methyl stearate	11.882	400	C18:0
16. Methyl octadecenoate	12.877	200	C18:1 (t9)
17. Methyl oleate	13.345	400	C18:1 (c9)
18. Methyl linolelaidate	14.685	200	C18:2 (t9,t12)
19. Methyl linoleate	15.928	200	C18:2 (c9,c12)
20. Methyl arachidate	17.136	400	C20:0
21. Methyl linolenate	18.252	200	C18:3 (c6,c9,c12)
22. Methyl eicosenoate	19.422	200	C20:1 (c11)
23. Methyl linolenate	19.740	200	C18:3 (c9,c12,c15)
24. Methyl heneicosanoate	20.592	200	C21:0
25. Methyl eicosadienoate	21.621	200	C20:2 (c11,c14)
26. Methyl behenate	22.380	400	C22:0
27. Methyl eicosatrienoate	22.884	200	C20:3 (c8,c11,c14)
28. Methyl erucate	23.510	200	C22:1 (c13)
29. Methyl eicosatrienoate	23.656	200	C20:3 (c11,c14,c17)
30. Methyl arachidonate	23.901	200	C20:4 (c5,c8,c11,c14)
31. Methyl tricosanoate	24.240	200	C23:0
32. Methyl docosadienoate	25.408	200	C22:2 (c13,c16)
33. Methyl eicosapentaenoate	26.293	200	C20:5 (c5,c8,c11,c14,c17)
34. Methyl lignocerate	26.293	400	C24:0
35. Methyl nervonate	27.653	200	C24:1 (c15)
36. Methyl docosahexaenoate	33.053	200	C22:6 (c4,c7,c10,c13,c16,c19)

Column Rt-2560, 100 m, 0.25 mm ID, 0.20 µm (cat.# 13198)
Sample Food industry FAME mix (cat.# 35077)
Diluent: Hexane
Conc.: 10,000 µg/mL total concentration

Injection
Inj. Vol.: 1 µL split (split ratio 20:1)
Liner: Topaz 4.0 mm ID Precision inlet liner w/wool (cat.# 23305)
Inj. Temp.: 250 °C

Oven
Oven Temp.: 180 °C (hold 19.8 min) to 215 °C at 32.3 °C/min (hold 11 min)
Carrier Gas H₂, constant flow
Flow Rate: 2.5 mL/min
Detector FID @ 250 °C

Constant Column +
Constant Make-up: 52 mL/min
Hydrogen flow: 40 mL/min
Air flow: 400 mL/min
Data Rate: 50 Hz

Instrument Agilent 7890A GC
Notes Method optimized from He using the EZGC method translator (<https://blog.restek.com/?p=52224>).
 C4:0 Methyl butyrate (623-42-7) elutes in the solvent front.
 Resolution of critical pair *cis*-11-C20:1 (#22) and *cis*-9,12,15-C18:3 (#23) is 2.03.