

Preparation of fatty acid methyl esters (FAME) mixture

- Measure the amount indicated of each fatty acid into separate vials.
- Add 1 mL of chloroform and vortex to mix.
- Combine all 13 solutions into a 25 mL volumetric flask and bring the final volume to 25 mL with chloroform.
- Stir using a stir bar/stir plate.
- Transfer the contents to an amber bottle.

Chemical	Amount (mg)	Final Concentration (mg/mL)
Methyl caprylate/ octanoic (C08)	20	0.8
Methyl perlargonate/ nonanoic (C09)	20	0.8
Methyl caprate/ decanoic (C10)	20	0.8
Methyl laurate/ dodecanoic (C12)	20	0.8
Methyl myristate/ tetradecanoic (C14)	20	0.8
Methyl palmitate/ hexadecanoic (C16)	20	0.8
Methyl stearate/ octadecanoic (C18)	10	0.4
Methyl arachidate/ icosanoic (C20)	10	0.4
Methyl behenate/ docosanoic (C22)	10	0.4
Methyl tetracosanoic (C24)	10	0.4
Methyl hexacosanoic (C26)	10	0.4
Methyl octacosanoic (C28)	10	0.4
Methyl triacontanoic (C30)	10	0.4

The mixture is prepared in an approach similar to the methods published by Dr. Oliver Fiehn, Director, RCMRC UC Davis' standard operating procedures; QC and FAME Preparation for GCTOF.