NQAC
Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Fatty Acid Profile (FAP) - MCT

Method Number: LI-21.016

Scope of Application: Description of an in-house method for the quantitative determination of fatty acids: C8:0 Caprylic acid and C10:0 Capric Acid, to detect specific medium chain triglycerides (MCT oil), at low detection levels (less than 10 mg/kg) in soluble coffee by capillary gas chromatography (GC-FID).

Description: Analysis of specific medium chain fatty acids (C8:0 Caprylic acid and C10:0 Capric acid), in soluble coffee is accomplished by several steps; first, lyophilization of the sample portion. Then, in the same tube lyophilization occurred, direct saponification and derivatization of the fatty acids to fatty acid methyl esters (FAMEs). Separation of FAMEs by capillary gas chromatography (GC) with a flame ionization detector (FID). Quantification of the two fatty acids is determined by calculation using C11:0 triglyceride (triundecanoin) as an internal standard.

Sample Weight Required: 50 g (at least 100 g for soluble coffee)

Analytical Platform: Gas Chromatography

Special Information: Coffee and Coffee Substitutes

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
8:0 Caprylic		mg/kg	4	30%
10:0 Capric		mg/kg	3	30%
Ratio of C8:0 to C10:0				