

Date: 2026-03-10

COFFEE EXTRACT MASS SPECTROMETRIC ANALYSIS (QUALITATIVE)

SAMPLE IDENTIFICATION

Internal code : 26B17-PTH01

Customer identification : Coffee - Venezuela - CB3116R

Type : Extract

Source : *Coffea arabica*

Customer : Plant Therapy

This report is an update of the version first issued on 2026-02-18 to make a correction in the sample identification section.

ANALYSIS

Method : Analysis by GC-MS alone using a HP-5MS column. The sample is diluted in acetone prior to injection.

Analyst : Sylvain Mercier

Analysis date : 2026-02-18

Compounds identified	Signal percentage*	Class
Furfuryl alcohol	1.89	Furan
Dimethylpyrazine isomer	0.39	Alkaloid
5-Methylfurfural	0.57	Furan
Furfuryl acetate	0.16	Furan
Limonene	0.80	Monoterpene
Furfuryl ether	0.05	Furan
4-Vinylguaiaicol	0.42	Simple phenolic
N-Furfuryl pyrrole	0.04	Pyrrole
Myristic acid	0.04	Aliphatic acid
Caffeine	8.94	Alkaloid
Methyl palmitate	0.10	Aliphatic ester
Palmitic acid	20.47	Aliphatic acid
Methyl linoleate	0.12	Aliphatic acid
Linoleic acid	8.75	Aliphatic acid
Stearic acid	2.89	Aliphatic acid
Furfuryl palmitate	0.81	Furan
Coffee unknown I (m/z 131, 146 (58), 145 (51), 131 (30), 296 (23))	1.10	Unknown

Coffee unknown II (m/z 131, 146 (91), 145 (90), 296 (34))	15.25	Unknown
"Coffee unknown IV (m/z 298, 147 (72), 283 (62), 148 (62), 91 (62))	15.56	Unknown
γ-Tocopherol	1.41	Tocopherol
α-Tocopherol	0.53	Tocopherol
Campesterol	0.42	Sterol
Stigmasterol	0.86	Sterol
γ-Sitosterol	1.07	Sterol

*These percentage are only indicative of relative peak ratios on the chromatogram, and not of their concentration in the sample. The extract very likely contains non-volatile material that could not be estimated by this analysis. Furthermore, GC-MS response factors vary more than for responses measured in GC-FID, and ratios comparisons should be considered with care.

CONCLUSION

No adulterant, contaminant or diluent has been detected using this method.

Checked and approved by :

Sylvain Mercier, M. Sc. Chimiste, 2014-005

Notes: This report is digitally signed, it is only considered valid if the digital signature is intact. The results only describe the samples that were submitted to the assays.