



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: CG0103

ESSENTIAL OIL: CLOVE BUD

BOTANICAL NAME: SYZYGIUM AROMATICUM

ORIGIN: INDONESIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF CLOVE BUD OIL	%
EUGENOL	82.0
EUGENYL ACETATE	9.6
B-CARYOPHYLLENE	5.6

Comments from Robert Tisserand: Rich, sweet-spicy odor quality. All three key ISO constituents are within range.

Date : August 23, 2017

SAMPLE IDENTIFICATION

Internal code : 17H16-PTH1-1-DM

Customer identification : Clove Bud - Indonesia - CG010369R

Type : Essential oil

Source : *Syzygium aromaticum*

Customer : Plant Therapy

ANALYSIS

Method : PC-PA-001-15E06, "Analysis of the composition of a liquid essential oil by GC-FID" (in French).

Identifications double-checked by GC-MS

Analyst : Sylvain Mercier, M. Sc., chimiste

Analysis date : 2017-08-22

Checked and approved by :

Alexis St-Gelais, M. Sc., chimiste 2013-174

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IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Furfural	2.20	842	0.07	0.06	1395	6.78	Furan
Methyl salicylate	9.28	1199	0.21	0.21	1663	16.51	Phenolic ester
Chavicol	13.22	1286	0.15	0.18	2239	43.87	Phenylpropanoid
Eugenol	18.54*	1370	82.18	82.01	2068	39.31	Phenylpropanoid
α -Copaene	18.54*	1370	[82.18]	0.11	1431	7.63	Sesquiterpene
β -Caryophyllene	20.80	1403	5.62	5.64	1521	10.13	Sesquiterpene
Methyleugenol	21.67	1413	0.03	0.03	1935	34.20	Phenylpropanoid
α -Humulene	23.48	1435	0.69	0.68	1583	12.45	Sesquiterpene
δ -Cadinene	29.38	1506	0.08	0.07	1674	17.06	Sesquiterpene
Eugenyl acetate	31.59	1537	9.64	9.70	2162	41.95	Phenylpropanoid ester
Caryophyllene oxide	33.86	1569	0.13	0.09	1846	28.59	Sesquiterp. ether
Total identified			98.80%	98.78%			

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not taken account in the identified total

Note: no correction factor was applied

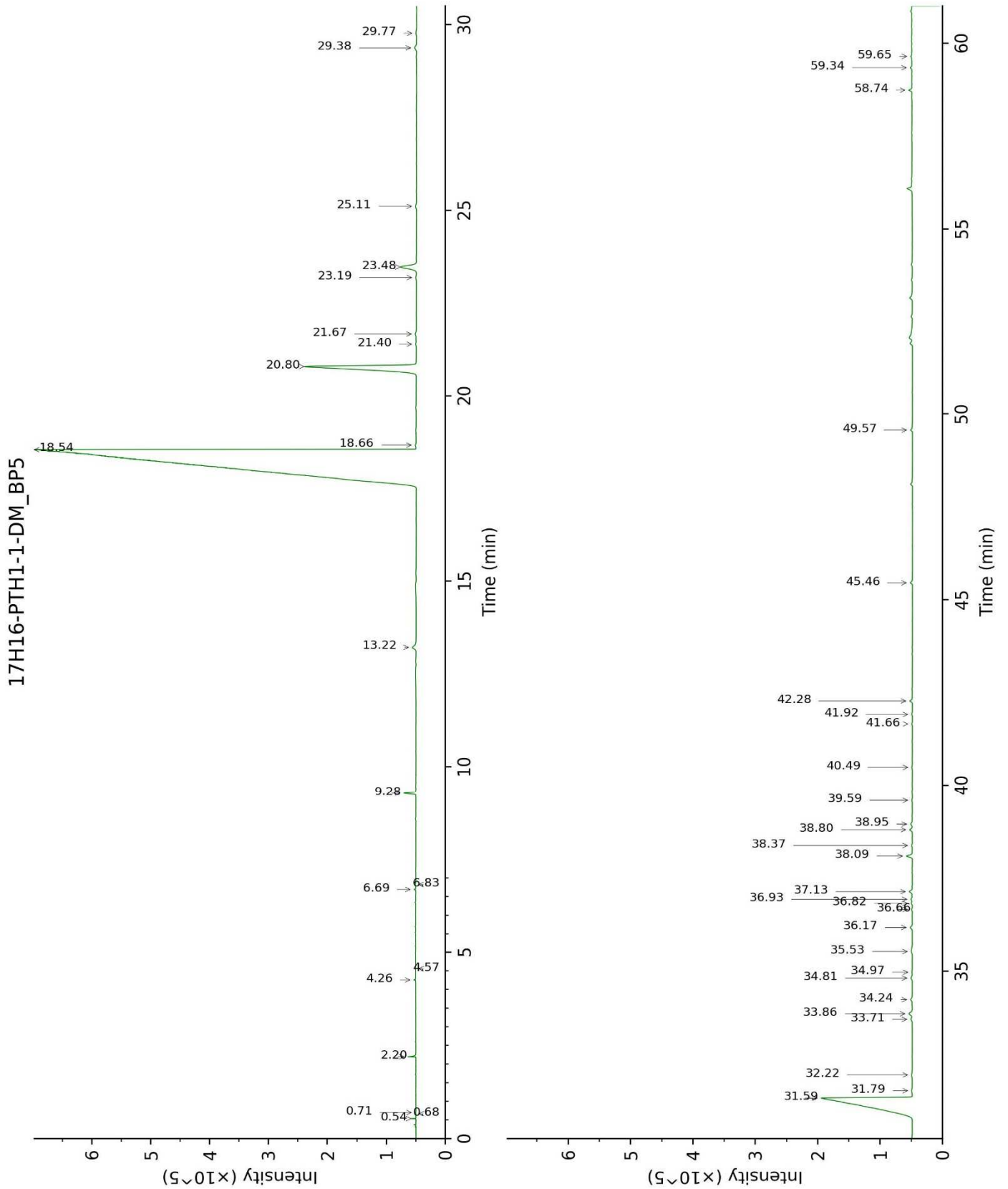
OTHER DATA

Physical aspect : Yellow liquid

Refractive index : 1.5330 \pm 0.0003 (20 °C)

CONCLUSION

No adulterant, contaminant or diluent were detected using this method.



17H16-PTH1-1-DM_WAX

