



## GC/MS BATCH NUMBER: CH0101

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**ESSENTIAL OIL:** CLOVE BUD ORGANIC  
**BOTANICAL NAME:** SYZYGIIUM AROMATICUM  
**ORIGIN:** SRI LANKA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF CLOVE BUD ORGANIC	%
EUGENOL	80.2
EUGENYL ACETATE	11.1
B-CARYOPHYLLENE	6.7

Comments from Robert Tisserand: A rounded, rich clove bud oil which conform to the ISO standard.

**Date :** October 22, 2015

*SAMPLE IDENTIFICATION*

**Internal code :** 15J15-PTH4-1-LC

**Customer identification :** Clove Bud organic - Sri Lanka - CH0101

**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).

**Analyst :** Alexis St-Gelais, M. Sc.

**Analysis date :** 2015-10-16

*IDENTIFIED COMPOUNDS*

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Chavicol	11.19	1289	0.09	0.12	2264	43.35	Phenylpropanoid
$\alpha$ -Cubebene	13.28	1329	0.11	0.09	1418	6.59	Sesquiterpene
Eugenol	15.75	1372	80.22	80.45	2092	38.76	Phenylpropanoid
$\beta$ -Caryophyllene	17.37	1401	6.70	6.40	1534	9.39	Sesquiterpene
Methyleugenol	18.40	1414	0.05	0.04	1962	33.35	Phenylpropanoid
$\alpha$ -Humulene	19.68	1431	0.50	0.54	1597	11.47	Sesquiterpene
$\gamma$ -Muurolene	21.18	1451	0.03	0.02	1620	12.52	Sesquiterpene
$\delta$ -Cadinene	25.09	1502	0.12	0.20	1686	15.66	Sesquiterpene
<i>trans</i> -Calamenene	25.45	1506	0.09	0.09	1746	19.17	Sesquiterpene
Eugenyl acetate	27.66	1533	11.10	10.93	2188	41.48	Phenylpropanoid ester
Caryophyllene oxide	29.80	1558	0.44	0.40	1861	26.95	Sesquiterp. ether
<b>Total identified</b>			<b>99.45%</b>	<b>99.28%</b>			

\*: 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 :** Light yellow liquid

**Refractive index :**  $1.5355 \pm 0.0003$  (20 °C)

*CONCLUSION*

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

Checked and approved by :

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

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