



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: GK0101

ESSENTIAL OIL: GRAPEFRUIT PINK ORGANIC

BOTANICAL NAME: CITRUS X PARADISI

ORIGIN: USA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF GRAPEFRUIT PINK ORGANIC OIL	%
Limonene	92.06
Myrcene	1.92

Comments from Robert Tisserand: Excellent fresh, fruity odor quality. Meets 8 of 10 ISO standards, with b-pinene and limonene marginally low - not a concern.

Date : June 26, 2017

SAMPLE IDENTIFICATION

Internal code : 17F22-PTH1-1-DM

Customer identification : Grapefruit Pink Organic - USA - GK010172R

Type : Essential oil

Source : *Citrus x paradisi*

Customer : Plant Therapy

ANALYSIS

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

Analyst : Sylvain Mercier, M. Sc., chimiste

Analysis date : 2017-06-26

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.	
α -Thujene	3.32	923	tr	0.51	945	1.03*	Monoterpene
α -Pinene	3.43	929	0.51	[0.51]	945	1.03*	Monoterpene
Sabinene	4.14	972	0.47	0.47	1060	1.76	Monoterpene
β -Pinene	4.21	976	0.03	0.02	1043	1.60	Monoterpene
Myrcene	4.49	993	1.92	1.90	1118	2.31	Monoterpene
α -Phellandrene	4.77	1008	0.02	0.01	1110	2.24	Monoterpene
Octanal	4.88	1014	0.31	0.29	1232	3.80	Aliphatic aldehyde
Limonene	5.31*	1038	92.21	92.06	1154	2.78	Monoterpene
1,8-Cineole	5.31*	1038	[92.21]	0.80	1155	2.79	Monoterp. ether
<i>trans</i> - β -Ocimene	5.55	1051	0.10	0.10	1202	3.38	Monoterpene
Octanol	6.19	1086	0.02	0.02	1499	8.34	Aliphatic alcohol
Linalool	6.68	1109	0.09	0.09	1489	8.12	Monoterp. alcohol
Nonanal	6.79	1113	0.08	0.08	1338	5.33	Aliphatic aldehyde
<i>cis</i> -Limonene oxide	7.35	1133	0.04	0.03	1371	5.83	Monoterp. ether
<i>trans</i> -Limonene oxide	7.47	1137	0.02	0.02	1382	6.01	Monoterp. ether
Citronellal	7.97	1156	0.09	0.07	1416	6.54	Monoterp. aldehyde
α -Terpineol	9.44	1206	0.04	0.03	1635	12.79	Monoterp. alcohol
Decanal	9.79	1214	0.33	0.34	1442	7.01	Aliphatic aldehyde
Neral	11.15	1244	0.03	0.02	1598	11.47	Monoterp. aldehyde
Geranial	12.66	1277	0.05	0.06	1653	13.60	Monoterp. aldehyde
α -Copaene	17.71	1361	0.10	0.07	1439	6.93	Sesquiterpene
β -Cubebene	18.69	1376	0.10	0.07	1477	7.83	Sesquiterpene
Geranyl acetate	19.35	1386	0.03	0.04	1692	15.56	Monoterp. ester
β -Caryophyllene	20.59	1404	0.26	0.29	1523	8.90	Sesquiterpene
α -Humulene	23.38	1437	0.04	0.03	1584	10.91	Sesquiterpene
<i>trans</i> - β -Farnesene	24.52	1451	0.04	0.05	1618	12.20	Sesquiterpene
Germacrene D	25.59	1464	0.07	0.10	1625	12.40	Sesquiterpene
δ -Cadinene	29.33	1510	0.10	0.11	1677	14.83	Sesquiterpene
β -Sinensal	39.76	1698	0.06	0.06	2132	39.39	Sesquiterp. aldehyde
Nootkatone	42.97	1798	0.23	0.22	2350	44.85	Sesquiterp. ketone
7-Methoxy-8-(2-formyl-methylpropyl)-coumarin	53.56*	2238	0.20	0.22	3418	63.40*	Coumarin
Auraptene	61.25	2636	0.82	0.60	3722	67.67	Coumarin
Epoxyauraptene?	63.64	2772	0.20				Coumarin
Total identified			98.61%	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

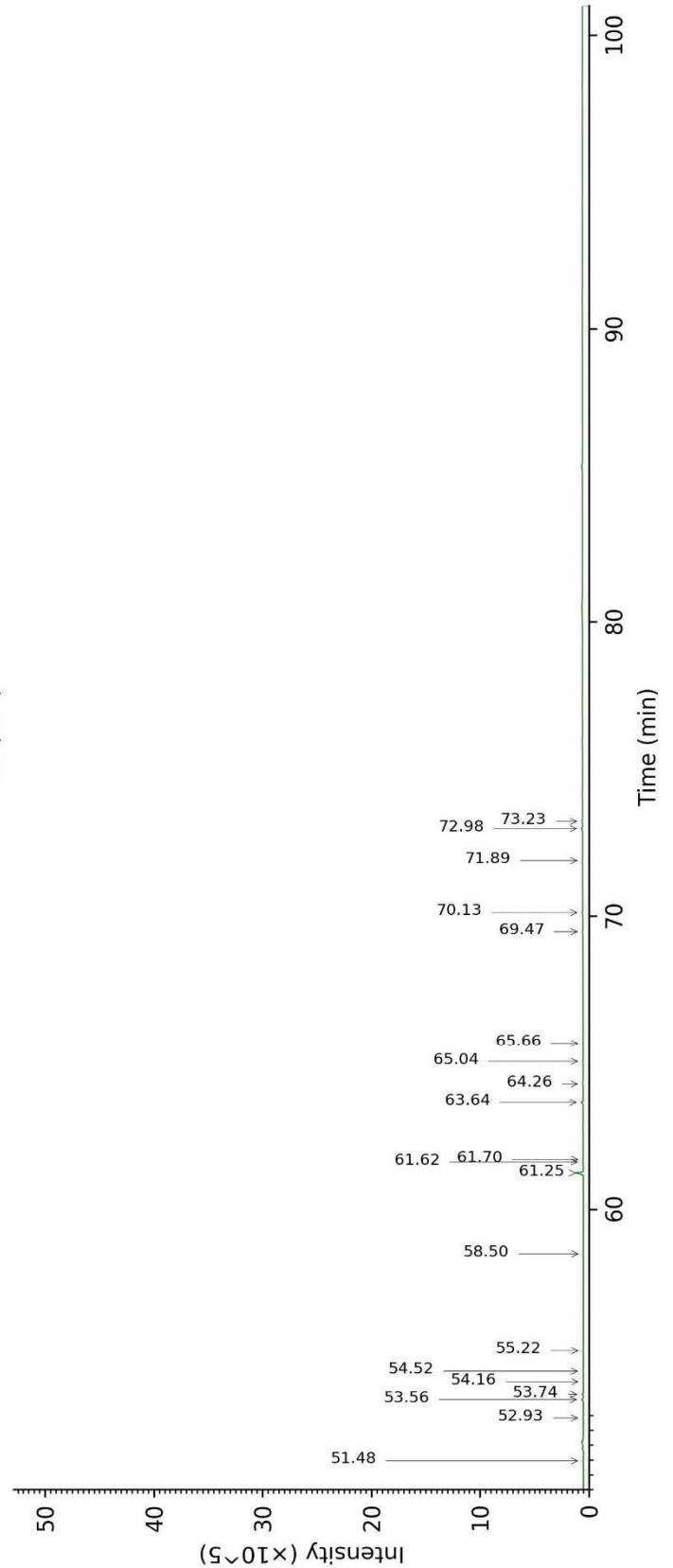
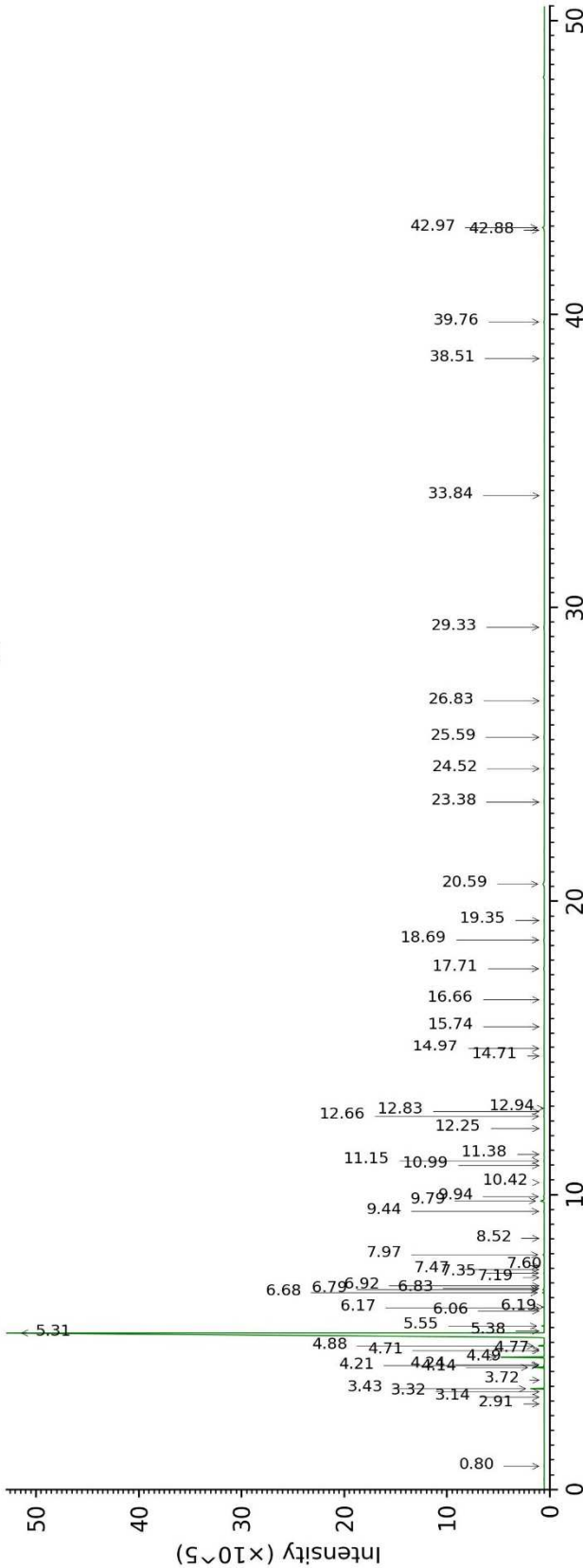
Physical aspect : Bright yellow liquid

Refractive index : 1.4730 ± 0.0003 (20 °C)

CONCLUSION

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

17F22-PTH1-1-DM_BP5



17F22-PTH1-1-DM_WAX

