

GC-MS Profiling Analysis Prepared for Jade Bloom, Inc

Date: April 17, 2018
Sample: Parsley Seed
Type: Essential Oil
Source: *Petroselinum sativum*
Batch: 041810070

ANALYSIS SUMMARY

Identification	DB-5 (%)	DB-WAX (%)	Classe
Isovaleral	tr	tr	Aliphatic aldehyde
2-Methylbutyral	tr	tr	Aliphatic aldehyde
Hexanal	tr	tr	Aliphatic aldehyde
Heptanal	tr	tr	Aliphatic aldehyde
Tricyclene	0.01	0.01	Monoterpene
α -Thujene	0.11	0.15	Monoterpene
α -Pinene	12.76	12.81	Monoterpene
Camphene	0.11*	0.11	Monoterpene
α -Fenchene	[0.11]*	0.01	Monoterpene
Thuja-2,4(10)-diene	0.01	0.36*	Monoterpene
β -Pinene	10.97*	10.67	Monoterpene
Sabinene	[10.97]*	[0.36]*	Monoterpene
6-Methyl-5-hepten-2-one	0.01*	0.01	Aliphatic ketone
<i>cis</i> -Carane	[0.01]*		Monoterpene
Myrcene	0.59	0.58	Monoterpene
α -Phellandrene	0.14*	0.12	Monoterpene
Pseudolimonene	[0.14]*	0.02	Monoterpene
Δ 3-Carene	0.01	tr	Monoterpene
α -Terpinene	0.03	0.03	Monoterpene
para-Cymene	0.18	0.19	Monoterpene
Limonene	4.07*	0.55	Monoterpene
β -Phellandrene	[4.07]*	3.57	Monoterpene
(<i>Z</i>)- β -Ocimene	0.02	0.01	Monoterpene
(<i>E</i>)- β -Ocimene	0.03	0.03	Monoterpene
γ -Terpinene	0.26	0.27	Monoterpene
<i>cis</i> -Sabinene hydrate	0.01	tr	Monoterpenic alcohol
Terpinolene	0.08	0.08	Monoterpene
para-Cymenene	0.26	0.26	Monoterpene
α -Pinene oxide	0.01	0.01	Monoterpenic ether
Linalool	0.02	0.03	Monoterpenic alcohol
para-Mentha-1,3,8-triene	0.08	0.08	Monoterpene
endo-Fenchol	0.01	0.01	Monoterpenic alcohol
<i>cis</i> -para-Menth-2-en-1-ol	0.01	0.01	Monoterpenic alcohol
α -Campholenal	0.02	0.02	Monoterpenic aldehyde
Cosmene?	0.01		Monoterpene
<i>trans</i> -Pinocarveol	0.04	0.07	Monoterpenic alcohol
<i>trans</i> -Verbenol	0.01	0.01	Monoterpenic alcohol
1,4-Dimethyl-4-acetylcyclohexene	0.04	0.08*	Monoterpenic ketone
Pinocarvone	0.03	0.03	Monoterpenic ketone
Unknown	0.01		Oxygenated monoterpene
Terpinen-4-ol	0.08	0.19*	Monoterpenic alcohol
Unknown	0.09*		Unknown
4-Methylacetophenone	[0.09]*	0.06	Simple phenolic
para-Cymen-8-ol	0.01	tr	Monoterpenic alcohol
α -Terpineol	0.19*	0.08	Monoterpenic alcohol
Myrtenal	[0.19]*	0.16	Monoterpenic aldehyde
Myrtenol	0.06	0.04	Monoterpenic alcohol
Unknown	0.04		Oxygenated monoterpene

Unknown	0.03		Unknown
Verbenone	0.05	0.02*	Monoterpenic ketone
<i>trans</i> -Carveol	0.02	0.03	Monoterpenic alcohol
Unknown	0.01	0.01	Oxygenated monoterpene
Cuminal	0.01	0.01	Monoterpenic aldehyde
Carvone	0.03	0.04*	Monoterpenic ketone
Phellandral	0.08		Monoterpenic aldehyde
α -Terpinen-7-al	0.01	0.01	Monoterpenic aldehyde
Carvacrol	0.01	0.02	Monoterpenic alcohol
4-Vinylguaiacol	0.04	0.01	Simple phenolic
α -Terpinyl acetate	0.01	0.05*	Monoterpenic ester
α -Copaene	0.01	tr	Sesquiterpene
Daucene	0.06	[0.08]*	Sesquiterpene
Geranyl acetate	0.02	0.02	Monoterpenic ester
β -Elemene	0.03	[0.19]*	Sesquiterpene
Methyleugenol	0.01	0.01	Phenylpropanoid
β -Caryophyllene	0.06	[0.19]*	Sesquiterpene
<i>trans</i> - α -Bergamotene	0.06	[0.19]*	Sesquiterpene
α -Humulene	0.01	0.01	Sesquiterpene
(<i>E</i>)- β -Farnesene	0.14	0.14	Sesquiterpene
Unknown	0.05*	[0.05]*	Sesquiterpene
γ -Decalactone	[0.05]*	0.01	Aliphatic lactone
Germacrene D	0.02	0.01	Sesquiterpene
Liguloxide analog II	0.06*	[0.02]*	Sesquiterpenic ether
β -Selinene	[0.06]*	0.02	Sesquiterpene
Isodaucene	0.03	[0.04]*	Sesquiterpene
β -Bisabolene	0.04	0.03	Sesquiterpene
Myristicin	36.62	36.60	Phenylpropanoid
Copaen-15-ol	0.02		Sesquiterpenic alcohol
Elemicin	5.06	4.97	Phenylpropanoid
Caryophyllene oxide	0.04	0.04	Sesquiterpenic ether
Carotol	0.65	0.64	Sesquiterpenic alcohol
1,2,3,4-Tetramethoxy-5-allylbenzene	8.53	8.56	Phenylpropanoid
Unknown	0.07		Oxygenated sesquiterpene
Unknown	0.04		Unknown
Daucol	0.04	0.02	Sesquiterpenic alcohol
Unknown	0.01		Oxygenated sesquiterpene
Apiole	16.17	16.15	Phenylpropanoid
Phytone	0.05	0.05	Terpenic ketone
Unknown	0.12		Unknown
Total identified	98.42%	98.22%	

*: Two or more compounds are coeluting on this column

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

tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied

PHYSICOCHEMICAL DATA

Physical aspect: Light yellow liquid

Refractive index: 1.5183 ± 0.0003 (20 °C)

COMPLIANCE WITH ISO 3527:2016 (PETROSELINUM CRISPUM, SYN. P. SATIVUM)

Compound	Min. %	Max. %	Observed %	Complies?
α-Pinene	10	22	12.8	Yes
β-Pinene	7	15	10.7	Yes
Myristicin	25	50	36.6	Yes
Apiole	5	35	16.2	Yes
1,2,3,4-Tetramethoxy-5-allylbenzene	1	12	8.5	Yes
Elemicin	1	12	5.1	Yes
Refractive index	1.513	1.522	1.5183	Yes

CONCLUSION

No adulterant, contaminant or diluent has been detected using this method. The oil complies with the ISO standard for parsley seed oil.



Jade Bloom

HEALTH, HEALING & HAPPINESS