

Date : 2026-05-07

CERTIFICATE OF ANALYSIS - GC PROFILING (MAIN TERPENES)

SAMPLE IDENTIFICATION

Internal code : 26E06-DOG01

Customer Identification : Miracle Alien Cookies - Lot: 3142025MAC

Type : Plant material

Source : *Cannabis sativa*

Customer : 2172181 Alberta Ltd. (Dog Star Cannabis)

Checked and approved by:

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

Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia. 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. The compliance status of the sample is provided to facilitate the reading of the report. The client remains ultimately responsible for reviewing the results presented within this report and to establish compliance of the tested batch against relevant quality criteria.

PHYSICOCHEMICAL DATA

Method : PC-MAT-024 - Vegetal material moisture content determination

Moisture content : 13.94 % m/m

Analyst : Kassandra Baker

Date : 2026-05-07

GAS CHROMATOGRAPHIC ANALYSIS

Method : PC-MAT-004 - Terpenes and volatiles profiling by response factor

Results : See analysis summary (table)

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

Date : 2026-05-07

REFERENCE

(1) Cachet, T.; Brevard, H.; Chaintreau, A.; Demyttenaere, J.; French, L.; Gassenmeier, K.; Joulain, D.; Koenig, T.; Leijts, H.; Liddle, P.; et al. IOFI Recommended Practice for the Use of Predicted Relative-Response Factors for the Rapid Quantification of Volatile Flavouring Compounds by GC-FID. *Flavour Fragr. J.* 2016, 31 (3), 191–194.

ANALYSIS SUMMARY - CONSOLIDATED CONTENTS

Identification	Anhydrous (mg/g)	As is (mg/g)	Class
Terpinolene	11.17	9.61	Monoterpene
β -Caryophyllene	3.19	2.74	Sesquiterpene
Selina-3,7(11)-diene	2.60	2.24	Sesquiterpene
Limonene	2.52	2.17	Monoterpene
Germacrene B	2.27	1.95	Sesquiterpene
Myrcene	2.24	1.93	Monoterpene
Selina-4(15),7(11)-diene	2.06	1.78	Sesquiterpene
(E)- β -Ocimene	2.06	1.77	Monoterpene
β -Pinene	1.65	1.42	Monoterpene
α -Humulene	1.10	0.95	Sesquiterpene
α -Pinene	0.98	0.84	Monoterpene
γ -Elemene	0.89	0.76	Sesquiterpene
β -Phellandrene	0.83	0.72	Monoterpene
Selina-4,7(11)-diene	0.78	0.67	Sesquiterpene
α -Terpineol	0.78	0.67	Monoterpenic alcohol
Linalool	0.74	0.63	Monoterpenic alcohol
(3E,6E)- α -Farnesene	0.62	0.53	Sesquiterpene
(E)- β -Farnesene	0.58	0.5	Sesquiterpene

α -Phellandrene	0.51	0.44	Monoterpene
α -Selinene	0.46	0.4	Sesquiterpene
Δ^3 -Carene	0.44	0.38	Monoterpene
α -Terpinene	0.44	0.38	Monoterpene
endo-Fenchol	0.43	0.37	Monoterpenic alcohol
β -Selinene	0.39	0.34	Sesquiterpene
α -Guaiene	[0.34]	[0.29]	Sesquiterpene
<i>trans</i> - α -Bergamotene	[0.34]	[0.29]	Sesquiterpene
Eremophila-1(10),7(11)-diene	0.32	0.27	Sesquiterpene
<i>trans</i> -Pinene hydrate	0.30	0.26	Monoterpenic alcohol
γ -Terpinene	0.29	0.25	Monoterpene
α -Thujene	0.24	0.2	Monoterpene
Sabinene	0.23	0.19	Monoterpene
Juniper camphor	0.21	0.18	Sesquiterpenic alcohol
Spirovetiva-1(10),7(11)-diene	0.18	0.15	Sesquiterpene
(<i>E</i>)-Nerolidol	0.18	0.15	Sesquiterpenic alcohol
Eudesma-5,7(11)-diene	0.16	0.14	Sesquiterpene
Borneol	0.14	0.12	Monoterpenic alcohol
Phytol	0.14	0.12	Diterpenic alcohol
(<i>E</i>)- α -Bisabolene	0.14	0.12	Sesquiterpene
Terpinen-4-ol	0.12	0.1	Monoterpenic alcohol
Unknown	0.11	0.09	Sesquiterpene
α -Eudesmol	0.10	0.09	Sesquiterpenic alcohol
Unknown	0.09	0.08	Sesquiterpene
Unknown	0.09	0.08	Oxygenated monoterpene
δ -Guaiene	0.09	0.08	Sesquiterpene
Camphene	0.08	0.07	Monoterpene
<i>cis</i> -Sabinene hydrate	0.08	0.07	Monoterpenic alcohol
α -Bisabolol	0.08	0.07	Sesquiterpenic alcohol
<i>cis</i> -Pinene hydrate	0.07	0.06	Monoterpenic alcohol
Caryophyllene oxide	0.07	0.06	Sesquiterpenic ether
<i>para</i> -Cymen-8-ol	0.07	0.06	Monoterpenic alcohol
Selin-6-en-4 α -ol isomer	0.07	0.06	Sesquiterpenic alcohol
β -Bisabolene	0.07	0.06	Sesquiterpene
Hexyl hexanoate	0.07	0.06	Aliphatic ester
<i>trans</i> -Sabinene hydrate	0.06	0.05	Monoterpenic alcohol
Aromadendrane-4,10-diol	0.06	0.05	Sesquiterpenic alcohol
α -Santalene	0.05	0.04	Sesquiterpene
allo-Aromadendrene	0.05	0.04	Sesquiterpene
Epoxyterpinolene	0.05	0.04	Monoterpenic ether
Valencene	0.04	0.04	Sesquiterpene
(3 <i>Z</i>)-Caryophylla-3,8(13)-dien-5 β -ol	0.04	0.04	Sesquiterpenic alcohol
α -Ylangene	0.04	0.04	Sesquiterpene
Humulene epoxide II	0.04	0.03	Sesquiterpenic ether
Ipsdienol	0.04	0.03	Monoterpenic alcohol

(2E,6E)-Farnesol	0.04	0.03	Sesquiterpenic alcohol
<i>para</i> -Cymenene	0.04	0.03	Monoterpene
γ -Eudesmol	0.04	0.03	Sesquiterpenic alcohol
Selin-6-en-4 α -ol	0.04	0.03	Sesquiterpenic alcohol
β -Eudesmol	0.03	0.03	Sesquiterpenic alcohol
Geraniol	0.03	0.03	Monoterpene alcohol
Fenchone	0.03	0.02	Monoterpene ketone
(Z)- β -Ocimene	0.03	0.02	Monoterpene
Camphene hydrate	0.02	0.02	Monoterpene alcohol
Decanol	0.02	0.01	Aliphatic alcohol
α -Cubebene	0.01	0.01	Sesquiterpene
<i>para</i> -Cymene	0.01	0.01	Monoterpene
10-epi- γ -Eudesmol	0.01	0.01	Sesquiterpenic alcohol
α -Fenchene	0.01	0.01	Monoterpene
<i>meta</i> -Camphorene	0.01	0.01	Diterpene
Bulnesol	0.01	0.01	Sesquiterpenic alcohol
Cryptomeridiol	0.01	0.01	Sesquiterpenic alcohol
Octanol	0.01	0.0	Aliphatic alcohol
Citronellol	0.01	0.0	Monoterpene alcohol
Hexanol	0.01	0.0	Aliphatic alcohol
Guaïol	tr	tr	Sesquiterpenic alcohol
Hashishene	tr	tr	Monoterpene
Consolidated total	44.75	38.51	

tr: The compound has been detected below 0.01 mg/g.

[xx]: Duplicate concentration due to coelutions, taken only once into account in the consolidated total

Note: Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).

Unknown compounds are expressed in equivalents of internal standard without correction factor.

About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm is set to prioritize data from the most standard DB-5 column, and smallest values so as to avoid overestimating individual content. This process is semi-automatic.

Unknowns: The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion. Some recurring, characteristic unknowns are listed for cannabis samples as they are representative of the actual composition of the material.