

## CERTIFICATE OF ANALYSIS

PRODUCT IDENTIFICATION		COMPANY IDENTIFICATION	
PRODUCT NAME:	Red bergamot	COMPANY:	ZAYAT AROMA INC.
BOTANICAL NAME:	Monarda didyma	ADDRESS:	1339 SHEFFORD, BROMONT (QC) J2L 1C9, CANADA
SYNONYM(S):	Scarlet beebalm	TELEPHONE:	1.855.534.1671
		FAX:	1.855.553.6010
		WEB:	WWW.ZAYATAROMA.COM
		E-MAIL:	INFO@ZAYATAROMA.COM
INCI NAME:	N/A		
CAS TSCA:	N/A	HS CODE:	3301.29
CAS EINECS:	N/A	EINECS:	N/A
FEMA:	N/A	COE:	N/A
COUNTRY OF ORIGIN:	Canada	FDA CODE:	N/A
PRODUCTION TYPE:	Certified Organic		Certified organic by Ecocert Canada
PRODUCTION METHOD:	Steam distilled		
PART DISTILLED:	Flowers		
LOT NUMBER:	EAB666343CA25424A		
PRODUCTION DATE:	12/2024		
EXPIRATION DATE:	12/2029		



PROPERTIES	SPECIFICATIONS	RESULTS
APPEARANCE	N/A	Complies
ODOR	N/A	Complies
SOLUBILITY	N/A	Complies
SPECIFIC GRAVITY:	N/A	0.929
OPTICAL ROTATION:	N/A	N/A
REFRACTIVE INDEX:	N/A	N/A
PEROXYDE VALUE:	<= 15 mEq O2/KG	N/A

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ANALYSIS SUMMARY – CONSOLIDATED CONTENTS

New readers of similar reports are encouraged to read table footnotes at least once.

Identification	%	Class
Isovaleral	tr	Aliphatic aldehyde
2-Methylbutyral	tr	Aliphatic aldehyde
(3Z)-Hexenol	0.01	Aliphatic alcohol
3-Heptenol	0.01	Aliphatic alcohol
Santene	0.01	Normonoterpene
Hashishene	0.01	Monoterpene
Tricyclene	0.01	Monoterpene
$\alpha$ -Thujene	1.52	Monoterpene
$\alpha$ -Pinene	0.54	Monoterpene
Unknown	0.02	Monoterpene
Camphene	0.14	Monoterpene
Benzaldehyde	0.01	Simple phenolic
Sabinene	0.05	Monoterpene
$\beta$ -Pinene	0.20	Monoterpene
Octen-3-ol	3.08	Aliphatic alcohol
Octan-3-one	0.04	Aliphatic ketone
Myrcene	2.42	Monoterpene
Octan-3-ol	0.06	Aliphatic alcohol
Pseudolimonene	0.02	Monoterpene
$\alpha$ -Phellandrene	0.37	Monoterpene
$\Delta^3$ -Carene	0.22	Monoterpene
$\alpha$ -Terpinene	2.95	Monoterpene
para-Cymene	8.23	Monoterpene
Limonene	0.80	Monoterpene
$\beta$ -Phellandrene	0.01	Monoterpene
1,8-Cineole	0.36	Monoterpenic ether
(Z)- $\beta$ -Ocimene	0.02	Monoterpene
(E)- $\beta$ -Ocimene	0.12	Monoterpene
$\gamma$ -Terpinene	15.70	Monoterpene
cis-Sabinene hydrate	0.25	Monoterpenic alcohol
Octanol	0.02	Aliphatic alcohol
Nonen-3-ol	0.07	Aliphatic alcohol
Terpinolene	0.13	Monoterpene
para-Cymenene	0.01	Monoterpene
trans-Sabinene hydrate	0.10	Monoterpenic alcohol
Linalool	0.05	Monoterpenic alcohol
Nonanal	0.03	Aliphatic aldehyde
$\beta$ -Thujone	0.01	Monoterpenic ketone
cis-para-Menth-2-en-1-ol	0.05	Monoterpenic alcohol
Cosmene	0.01	Monoterpene
trans-para-Menth-2-en-1-ol	0.03	Monoterpenic alcohol
trans-Verbenol	0.01	Monoterpenic alcohol
Borneol	0.10	Monoterpenic alcohol
Unknown	0.01	Oxygenated monoterpene
Unknown	0.02	Unknown

Terpinen-4-ol	0.76	Monoterpenic alcohol
para-Cymen-8-ol	0.01	Monoterpenic alcohol
Decen-3-ol	0.06	Aliphatic alcohol
$\alpha$ -Terpineol	0.03	Monoterpenic alcohol
Methyl salicylate	0.03	Phenolic ester
<i>cis</i> -Piperitol	0.08	Monoterpenic alcohol
Decanal	0.01	Aliphatic aldehyde
Nerol	0.01	Monoterpenic alcohol
Cuminal	tr	Monoterpenic aldehyde
Carvone	0.02	Monoterpenic ketone
Carvacrol methyl ether	5.46	Monoterpenic ether
Piperitone	0.01	Monoterpenic ketone
Bornyl acetate	0.02	Monoterpenic ester
(4Z)-Undecenal	0.02	Aliphatic aldehyde
Thymol analogue I (isothymol?)	0.16	Monoterpenic alcohol
Thymol	0.28	Monoterpenic alcohol
Carvacrol	48.15	Monoterpenic alcohol
$\alpha$ -Cubebene	0.04	Sesquiterpene
Eugenol	0.05	Phenylpropanoid
$\alpha$ -Ylangene	0.02	Sesquiterpene
Carvacryl acetate	0.03	Monoterpenic ester
$\alpha$ -Copaene	0.09	Sesquiterpene
$\beta$ -Bourbonene	0.12	Sesquiterpene
$\beta$ -Cubebene	0.02	Sesquiterpene
$\beta$ -Elemene	0.05	Sesquiterpene
(Z)-Jasmone	0.02	Jasmonate
$\beta$ -Caryophyllene	1.30	Sesquiterpene
$\beta$ -Ylangene	0.02	Sesquiterpene
Opposita-4(15),11-diene	0.01	Sesquiterpene
$\beta$ -Copaene	0.08	Sesquiterpene
<i>cis</i> -Muurolo-3,5-diene	0.01	Sesquiterpene
$\alpha$ -Humulene	0.08	Sesquiterpene
<i>cis</i> -Muurolo-4(15),5-diene	0.02	Sesquiterpene
(E)- $\beta$ -Farnesene	0.10	Sesquiterpene
Unknown	0.01	Sesquiterpene
<i>trans</i> -Cadina-1(6),4-diene	0.01	Sesquiterpene
$\gamma$ -Muurolole	0.22	Sesquiterpene
Germacrene D	0.52	Sesquiterpene
$\beta$ -Selinene	0.07	Sesquiterpene
Valencene	0.18	Sesquiterpene
$\alpha$ -Muurolole	0.10	Sesquiterpene
$\delta$ -Amorphene	0.01	Sesquiterpene
$\gamma$ -Cadinene	0.18	Sesquiterpene
Cubebol	0.03	Sesquiterpenic alcohol
(3E,6E)- $\alpha$ -Farnesene	0.22	Sesquiterpene
$\delta$ -Cadinene	0.35	Sesquiterpene
<i>trans</i> -Cadina-1,4-diene	0.03	Sesquiterpene
$\alpha$ -Cadinene	0.03	Sesquiterpene
Thymohydroquinone	0.12	Monoterpenic alcohol
(E)-Nerolidol	0.05	Sesquiterpenic alcohol
Caryophyllene oxide	0.08	Sesquiterpenic ether
Caryophyllene oxide isomer	0.01	Sesquiterpenic ether

Eudesm-5-en-11-ol	0.04	Sesquiterpenic alcohol
Torilenol	0.03	Oxygenated sesquiterpene
10-epi-Cubenol	0.03	Sesquiterpenic alcohol
$\tau$ -Cadinol	0.06	Sesquiterpenic alcohol
$\alpha$ -Muurolol	0.03	Sesquiterpenic alcohol
Unknown	0.03	Unknown
$\alpha$ -Cadinol	0.07	Sesquiterpenic alcohol
Eudesma-4(15),7-dien-1 $\beta$ -ol	0.04	Sesquiterpenic alcohol
Unknown	0.05	Oxygenated sesquiterpene
Cyclocolorone	0.02	Sesquiterpenic ketone
Eudesma-3,11-dien-2-one	0.02	Sesquiterpenic ketone
Phytone	0.01	Terpenic ketone
Unknown	0.04	Unknown
Unknown	0.06	Unknown
Unknown	0.01	Unknown
Unknown	0.05	Unknown
meta-Camphorene	0.03	Diterpene
Unknown	0.03	Unknown
Unknown	0.01	Unknown
Unknown	0.03	Unknown
Unknown	0.03	Unknown
Unknown	0.05	Unknown
Unknown	0.08	Unknown
<b>Consolidated total</b>	<b>98.09%</b>	

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

Note: no correction factor was applied