

## CERTIFICATE OF ANALYSIS

PRODUCT IDENTIFICATION		COMPANY IDENTIFICATION	
PRODUCT NAME:	Frankincense	COMPANY:	ZAYAT AROMA INC.
BOTANICAL NAME:	Boswellia carterii	ADDRESS:	1339 SHEFFORD, BROMONT (QC) J2L 1C9, CANADA
SYNONYM(S):	Olibanum	TELEPHONE:	1.855.534.1671
		FAX:	1.855.318.6124
		WEB:	WWW.ZAYATAROMA.COM
		E-MAIL:	INFO@ZAYATAROMA.COM
INCI NAME:	Boswellia carterii (olibanum) oil		
CAS TSCA:	8016-36-2	HS CODE:	3301.29
CAS EINECS:	89957-98-2	EINECS:	283-626-9
FEMA:	2816	COE:	93n
COUNTRY OF ORIGIN:	Somalia	FDA CODE:	172.51
PRODUCTION TYPE:	Certified Organic	Certified organic by Ecocert Canada	
PRODUCTION METHOD:	Distillation complète à la vapeur d'eau		
PART DISTILLED:	Oleo-resin		
LOT NUMBER:	EAB267227SO63818A		
PRODUCTION DATE:	March 2018		
EXPIRATION DATE:	March 2020		



PROPERTIES	SPECIFICATIONS	RESULTS
APPEARANCE	<i>Colorless to pale yellow liquid</i>	<i>Complies</i>
ODOR	<i>Characteristic warm, spicy balsamic incense-like aroma</i>	<i>Complies</i>
SOLUBILITY	<i>Soluble in alcohol and oils. Insoluble in water.</i>	<i>Complies</i>
SPECIFIC GRAVITY:	<i>0.836 - 0.900 @ 20°C</i>	<i>0.846</i>
OPTICAL ROTATION:	<i>-20.0 - +10.0 @ 20°C</i>	<i>-5</i>
REFRACTIVE INDEX:	<i>1.400 - 1.565 @ 20°C</i>	<i>1.462</i>
PEROXYDE VALUE:	<i>&lt;= 15 mEq O2/KG</i>	<i>Complies</i>

### DISCLAIMER

The information above is given in good faith and is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ZAYAT AROMA INC. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ZAYAT AROMA INC. has been advised of the possibility of such damages. This data is not to be constructed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. This data relates only to the specific material designated and not to be used in combination with any other material. Many regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize themselves with all applicable regulations.

## CERTIFICATE OF ANALYSIS

Frankincense  
Boswellia carterii

LOT: SO63818A

CERTIFICATE OF ANALYSIS

COMPONENTS	% TOTAL: 99.79
ACETONE	0.03
TETRAMETHYL CYCLOPENTENE Mw=124	0.01
NONANE	0.03
TETRAMETHYL CYCLOPENTENE Mw=124	0.03
ISOVALERALDEHYDE	0.01
HEXANE, 1-METHOXY	0.03
CYCLOPENTADIENE ETHENYL	0.05
TRICYCLENE	0.06
<i>a</i> -PINENE	30.82
<i>a</i> -THUYENE	2.50
TOLUENE	0.07
METHYLFURAN, ACETYL	0.09
<i>a</i> -FENCHENE	0.01
CAMPHERE	0.64
<i>b</i> -PINENE	2.89
SABINENE	4.63
PINADIENE	0.83
THUYADIENE	0.03
<i>p</i> -MENTH-2-ENE	0.03
3-CARENE	0.49
OCTANE, 1-METHOXY	2.77
<i>b</i> -MYRCENE	2.60
<i>a</i> -PHELLANDRENE	0.53
<i>y</i> -LIMONENE	0.02
<i>o</i> -CYMENE	0.05
<i>a</i> -TERPINENE	0.41
HEPTATRIENE TRIMETHYL	0.01
1,8-CINEOLE-2,3-DEHYDRO	0.06
MENTHATRIENE ISOMER	0.15
LIMONENE	2.82
ALIPHATIC ESTER	0.02
<i>b</i> -PHELLANDRENE + 1,8-CINEOLE	0.43
TERPENIC COMPOUND Mw=152	0.01
<i>Cis-b</i> -OCIMENE	0.82
<i>y</i> -TERPINENE	0.70
<i>Trans-b</i> -OCIMENE	0.18
METHYL NONYL ETHER	0.52
<i>p</i> -CYMENE	1.47
METHYLBUTYRATE, 2-METHYLBUTYL	0.02
TERPINOLENE	0.16
STYRENE ISOMER	0.03
1,3,7-NONATRIENE,4,8-DIMETHYL	0.09
COMPOUND Mw=138	0.04
6-METHYL-5-HEPTEN-2-ONE	0.01
ALIPHATIC ESTER	0.03
ACETYL METHYLCYCLOHEXENE Mw=138	0.04
DECANE, 1-METHOXY	12.93
KETONE COMPOUND	0.02
ALLO-OCIMENE	0.07
PINENE EPOXIDE	0.07
2-NONANONE	0.02
ALIPHATIC ESTER	0.15
TERPENIC KETONE	0.16
<i>o</i> -METHYLANISOLE	0.09
AROMATIC COMPOUND	0.01
HEXYL BUTYRATE	0.05
PERILLENE	0.04

CERTIFICATE OF ANALYSIS

a,p-DIMETHYLSTYRENE	0.14
Trans-2-DECEN-1-OL, METHYL ETHER	0.31
b-THUYONE	0.03
LINALOOL Cis-OXIDE	0.01
HEXYL 3-METHYLBUTYRATE	0.05
a-CUBEBENE	0.37
METHYL UNDECYL ETHER	0.05
s-ELEMENE	0.02
OCTYL ACETATE	1.79
CYCLOSATIVENE	0.10
ALDEHYDE a-CAMPHOLENE	0.25
YLANGENE	0.10
a-COPAENE	0.70
DECANAL	0.04
CAMPHOR	0.06
a-PINOCAMPHONE	0.13
a-BOURBONENE	0.06
SESQUITERPENE	0.06
b-BOURBONENE	0.80
COPACAMPHENE	0.03
a-GURJUNENE	0.10
ALIPHATIC ESTER	0.10
b-PINOCAMPHONE	0.03
b1-CUBEBENE	0.08
LINALOOL	0.17
1-OCTANOL	0.40
PINOCARVONE	0.12
TERPENIC EPOXIDE	0.05
NOPINONE	0.04
e-CADINENE	0.09
BORNYL ACETATE	0.52
FENCHOL	0.03
a,trans-BERGAMOTENE	0.06
s-ELEMENE	0.13
s-CUBEBENE	0.29
b-CARYOPHYLLENE	0.67
TERPINENE-4-OL	1.13
6,9-GUAIADIENE	0.20
ALIPHATIC ALCOHOL	0.07
HEXYL CAPROATE	0.09
MYRTENAL	0.43
SABINAKETONE	0.10
Cis-p-MENTH-2-EN-1-OL	0.05
CADINA-3,5-DIENE	0.13
CADINADIENE ISOMER	0.02
SESQUITERPENE	0.05
ALLO-AROMADENDRENE	0.09
Trans-PINOCARVEOL	1.10
Cis-VERBENOL	0.17
Trans-p-MENTHA-1,5-DIEN-8-OL	0.52
ZONARENE	0.13
CITRONELLYL ACETATE	0.03
a-HUMULENE	0.21
Trans-VERBENOL	0.66
y-SELINENE	0.06
NERAL	0.02
DECYL ACETATE	0.17
y-MUUROLENE	0.30
LEDENE	0.04
a-TERPINEOL	0.35
VERBENONE	1.06
ALIPHATIC METHOXY ETHER	0.13
GERMACRENE D	0.37
MUUROLENE ISOMER	0.25
b-SELINENE	0.16

CERTIFICATE OF ANALYSIS

<i>a</i> -MUUROLENE + <i>a</i> -SELINENE	0.22
CARVONE	0.20
BICYCLOGERMACRENE	0.03
<i>Cis</i> -PIPERITOL	0.05
<i>Trans</i> -ISOPIPERITENOL	0.03
<i>y</i> -CADINENE	0.24
<i>s</i> -CADINENE	1.00
1-DECANOL	0.89
CUMINAL	0.09
MENTHADIENOL ISOMER	0.04
CADINA-1,4-DIENE	0.15
MYRTENOL	0.31
<i>a</i> -AMORPHENE	0.05
<i>Trans</i> -SABINOL	0.01
TERPENIC ALCOHOL	0.04
<i>Trans</i> -CARVEOL	0.13
CALAMENENE	0.10
<i>a</i> -DIHYDRO-AGAROFURANE	0.60
TOLUENE 2,6-DIMETHOXY	0.12
<i>p</i> -CYMENE-8-OL	0.17
GERANIOL	0.04
<i>Cis</i> -CARVEOL	0.02
1-UNDECANOL	0.03
<i>Epi</i> -CUBEBOL	0.07
<i>a</i> -CALACORENE	0.05
PALUSTROL	0.04
CUBEBOL	0.13
BOURBONENOL ISOMER	0.04
ISOCARYOPHILLENE EPOXIDE	0.05
CARYOPHYLLENE EPOXIDE	0.16
SESQUITERPENOL	0.01
SESQUITERPENOL	0.01
LEDOL	0.04
EPOXY-6,7-HUMULENE	0.05
NEROLIDOL	0.10
SESQUITERPENOL	0.03
CAPRYLIC ACID	0.02
<i>EPI</i> -CUBENOL	0.06
CUBENOL	0.05
ELEMOL	0.18
VIRIDIFLOROL	1.34
FUROPALARGONE	0.01
CUMINOL	0.02
10- <i>Epi-y</i> -EUDESMOL	1.07
SPATHULENOL	0.01
<i>y</i> -EUDESMOL	0.01
LEVOJUNENOL	0.14
<i>a</i> -MUUROLOL	0.23
<i>s</i> -CADINOL	0.03
EUDESMOL ISOMER	0.03
CYMENE ISOMER	0.04
GERANYLGERANIADIENE ISOMER	0.02
<i>a</i> -EUDESMOL	0.04
SESQUITERPENOL	0.03
<i>b</i> -EUDESMOL	0.06
<i>a</i> -CADINOL	0.02
CEMBRENE Mw=272	0.34
CAPRIC ACID	0.09
AROMATIC COMPOUND	0.06
DITERPENE Mw=272	0.05
AROMATIC COMPOUND	0.19
AROMATIC COMPOUND	0.02
LAURIC ACID	0.12
INCENSYL ACETATE	0.93
CEMBRENOL	0.14

CERTIFICATE OF ANALYSIS

<i>MENTHATRIENE ISOMER</i>	<i>0.19</i>
<i>CYMENE ISOMER</i>	<i>0.04</i>
<i>PINOL</i>	<i>0.02</i>
<i>T-CADINOL</i>	<i>0.13</i>

CERTIFICATE OF ANALYSIS

Revision Date: 13/04/2018

ZA.COA\_Frankincense.EAB267227SO63818A

Page: 5/5