

**CERTIFICATE OF ANALYSIS**

PRODUCT IDENTIFICATION		COMPANY IDENTIFICATION	
PRODUCT NAME:	Ledum	COMPANY:	ZAYAT AROMA INC.
BOTANICAL NAME:	Ledum groenlandicum	ADDRESS:	1339 SHEFFORD, BROMONT (QC) J2L 1C9, CANADA
SYNONYM(S):		TELEPHONE:	1.855.534.1671
		FAX:	1.855.553.6010
		WEB:	WWW.ZAYATAROMA.COM
		E-MAIL:	INFO@ZAYATAROMA.COM
INCI NAME:	Ledum groenlandicum (Labrador tea) oil		
CAS TSCA:	90063-39-1	HS CODE:	3301.29
CAS EINECS:	90063-39-1	EINECS:	289-997-3
FEMA:	N/A	COE:	N/A
COUNTRY OF ORIGIN:	Canada	FDA CODE:	N/A
PRODUCTION TYPE:	Organic		
PRODUCTION METHOD:	Steam distilled		
PART DISTILLED:	Flowers		
LOT NUMBER:	EAB533476CA47918I		
PRODUCTION DATE:	Aout 2018		
EXPIRATION DATE:	Aout 2023		

PROPERTIES	SPECIFICATIONS	RESULTS
APPEARANCE	<i>Limpid, mobile and fluid liquid; incolor to pale yellow</i>	<i>Complies</i>
ODOR	<i>Herbal, wild, sweet and astringent</i>	<i>Complies</i>
SOLUBILITY	<i>Soluble in alcohol and oils. Insoluble in water.</i>	<i>Complies</i>
SPECIFIC GRAVITY:	<i>0.885 – 0.930 @ 20 °C</i>	<i>.900</i>
OPTICAL ROTATION:	<i>-55 – -5 @ 20°C</i>	<i>Complies</i>
REFRACTIVE INDEX:	<i>1.489 – 1.499 @ 20 °C</i>	<i>Complies</i>
PEROXYDE VALUE:	<i>&lt;= 15 mEq O2/KG</i>	<i>N/A</i>

**DISCLAIMER**

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% TOTAL: 96.9	COMPONENTS
0.02	Octane
0.01	(3Z)-Hexénol
0.04	Inconnu
0.01	Nonane
0.09	Tricyclène
0.19	Alpha-Thujène
2.68	Alpha-Pinène
1.02	Camphène
0.01	Thuja-2,4(10)-diène
0.01	Benzaldéhyde
11.18	Sabinène
0.02	6-Méthyl-5-heptén-2-one
0.29	Myrcène
0.01	Delta3-Carène
0.48	Alpha-Terpinène
1.93	Menthatriène, isomère III
11.82	Beta-Phellandrène
0.15	(Z)-Beta-Ocimène
0.06	(E)Beta-Ocimène
1.39	Gamma-Terpinène
0.09	cis-Hydrate de sabinène
0.02	Inconnu
0.43	para-Cyménène
0.03	trans-Hydrate de sabinène
0.05	Linalol
0.11	Nonanal
0.16	para-Mentha-1,3,8-triène
0.49	Déhydrosabinacétone
1.29	trans-para-Mentha-2,8-dién-1-ol
0.15	Inconnu
0.03	4-Hydroxy-4-méthylcyclohex-2-énone
2.40	cis-para-Mentha-2,8-dién-1-ol
0.06	Camphre
0.03	Époxyterpinolène
0.03	Inconnu
0.04	para-Vinylanisole
0.06	4-Isopropénylcyclohexanone
2.09	Inconnu
0.17	Bornéol
0.05	Inconnu
1.42	Terpinén-4-ol
0.78	Thuj-3-én-10-al
0.09	para-Cymén-8-ol
2.94	trans-Isocarvéol
2.32	Myrténal
0.74	trans-4-Caranone
1.56	trans-Isopipériténol
0.48	cis-Isopipériténol
0.47	trans-Carvéol
2.51	cis-Isocarvéol
0.13	Néro
0.37	Cuminal
0.70	Carvone
0.02	Géranio
0.01	Isopipériténone
0.17	Perillaldehyde
0.02	Phellandral
1.64	Acétate de bornyle

0.06	Cuminol
0.08	Carvacrol
0.05	Acétate de myrtényle
0.12	1,4-para-Menthadién-7-ol
0.14	Delta-Élémène
0.05	Acétate de citronellyle
0.08	Alpha-Copaène
0.08	Beta-Bourbonène
0.11	Acétate de géranyle
1.17	Beta-Élémène
0.50	Alpha-Gurjunène
0.67	Beta-Caryophyllène
0.62	Gamma-Élémène
0.01	Isogermacrène D
2.80	Alpha-Humulène
0.25	allo-Aromadendrane
0.26	Eudesma-2,4,11-triène
1.29	Germacrène D
7.94	Beta-Sélinène
0.08	trans-Muurolo-4(15),5-diène
4.78	Alpha-Sélinène
1.25	Curzérène
0.06	Alpha-Muuroloène
0.84	Eudesma-2,4(15),11-triène
0.64	Beta-Bisabolène
0.48	(3E,6E)-alpha-Farnésène
0.39	trans-Calaménène
0.09	trans-Cadina-1,4-diène
0.10	Alpha-Cadinène
0.07	(E)-alpha-Bisabolène
6.48	Germacrène B
0.05	Inconnu
0.26	Palustrol
0.15	Oxyde de caryophyllène
0.86	Eudesm-5-én-11-ol
0.11	Inconnu
0.06	Inconnu
0.10	1-épi-Cubénol
0.06	Caryophylladiénol II
0.15	Beta-Eudesmol
0.03	Inconnu
4.79	Germacrène
0.34	Inconnu
1.00	Cyclocolorénone
0.61	Eudesma-3,11-diène-2-one
0.18	Diterpène I
0.04	Diterpène II
0.15	Diterpène III
0.03	Diterpène IV
0.05	Inconnu
0.78	Isomère de menthatriène I