



NHR ORGANIC OILS

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Gas Liquid Chromatography (GLC) Certificate of Analysis Sheet

Product: Organic Ravensara Essential Oil

Species: *Ravensara aromatica*

Origin: Madagascar

Certified Organic Ravensara Oil (Ravensara aromatica)

Main Components:

21.71	THUJENE<ALPHA>	1.13%
22.20	PINENE<ALPHA>	5.55%
23.27	CAMPHENE	1.33%
25.45	SABINENE	11.40%
25.58	PINENE<BETA>	2.91%
26.90	MYRCENE	3.43%
27.81	PELLANDRENE<ALPHA>	1.99%
28.27	CARENE <DELTA-3>	3.52%
28.82	TERPINENE<ALPHA>	2.98%
29.26	CYMENE<ORTHO>	0.09%
29.47	CYMENE <PARA>	0.97%
29.92	LIMONENE	19.38%
30.01	CINEOLE <1,8>	1.08%
30.65	OCIMENE<(Z)-BETA>	1.30%
31.44	OCIMENE<(E)-BETA>	0.19%
32.23	TERPINENE<GAMMA>	2.15%
32.85	SABINENE HYDRATE<CIS>	0.08%
34.54	TERPINOLENE	0.56%
35.32	SABINENE HYDRATE<TRANS>	0.08%
35.63	LINALOOL	5.26%
37.14	MENTH-2-EN-1-OL<CIS-PARA>	0.10%
38.55	MENTH-2-EN-1-OL<TRANS-PARA>	0.08%
40.59	BORNEOL	0.21%
41.56	TERPINEN-4-OL	4.00%
42.53	TERPINEOL<ALPHA>	0.38%
43.24	METHYL CHAVICOL	7.94%
49.56	BORNYL ACETATE	0.36%
53.24	ELEMENE<DELTA>	0.55%
54.06	CUBEBENE<ALPHA>	0.47%
54.57	EUGENOL	0.12%
55.92	COPAENE<ALPHA>	0.69%

56.54	BOURBONENE<BETA->	0.08%
56.89	CUBEBENE<BETA->	0.16%
57.02	ELEMENE<BETA->	0.63%
57.92	METHYL EUGENOL	5.00%
58.96	CARYOPHYLLENE<E->	3.54%
59.52	COPAENE<BETA->	0.07%
60.94	MUUROLA-3,5-DIENE<CIS->	0.07%
61.17	HUMULENE<ALPHA->	0.79%
61.64	GUAIEENE<ALPHA->	0.37%
62.45	CADINA-1(6),4-DIENE<TRANS->	0.06%
63.04	GERMACRENE D	4.76%
63.32	SELINENE <BETA->	0.09%
63.81	MUUROLENE<GAMMA->	0.22%
63.95	BICYCLOGERMACRENE	0.20%
64.13	MUUROLENE<ALPHA->	0.11%
64.59	AMORPHENE<DELTA->	0.10%
65.04	CADINENE<GAMMA->	0.19%
65.60	CADINENE<DELTA->	0.60%
66.17	CADINA-1,4-DIENE<TRANS->	0.08%
67.20	ELEMOL	0.34%
67.54	ELEMICIN	0.23%
67.76	GERMACRENE B	0.07%
69.39	CARYOPHYLLENE OXIDE	0.07%
70.21	GUAIOL	0.05%
72.26	EUDESMOL<GAMMA->	0.06%
73.39	EUDESMOL<BETA->	0.05%
73.57	EUDESMOL<ALPHA->	0.10%

The composition of the sample corresponds to that expected for true *Ravensara aromatica* essential oil from Madagascar. It should be noted that the true Ravensara oil has very little 1.8 cineole content, unlike the "Ravintsara" oil (*Cinnamomum camphora*) that also comes from Madagascar which contains about 60-70% cineole. No adulteration or contamination was detected. Odour quality is excellent.