



NHR ORGANIC OILS
24 CHATHAM PLACE, BRIGHTON, BN1 3TN, UK
+44 (0)1273 746505 info@nhrorganicoils.com www.nhrorganicoils.com

Certificate of Analysis & Gas Chromatography
Organic Maritime Pine Needle Essential Oil
(Pinus pinaster)

Batch number: 210325-2

Origin: Portugal

Composant	CAS N°	TR (min)	Teneur (%)	Cosm. Allerg
α -Thujene	2867-05-2	5.469	0.033	
α-Pinene	80-56-8	5.609	35.352	Oui/Yes
Camphene	79-92-5	5.770	0.679	
β-Myrcene	123-35-3	5.937	4.876	
β-Pinene	127-91-3	6.044	16.132	Oui/Yes
α -Phellandrene	99-83-2	6.231	0.051	
δ-3-Carene	13466-78-9	6.284	2.075	
α -Terpinene	99-86-5	6.334	0.034	Oui/Yes
α -Phellandrene	99-83-2	6.375	0.040	
P-Cymene	99-87-6	6.413	0.145	
D-Limonene	5989-27-5	6.488	3.657	Oui/Yes
β -Phellandrene	555-10-2	6.550	0.598	
Eucalyptol	470-82-6	6.573	1.144	
γ -Terpinene	99-85-4	6.782	0.074	
Terpinolene	586-62-9	7.168	0.819	Oui/Yes
Fenchol	1632-40-5	7.740	0.061	
Myrtenyl angelate	138530-45-7	8.158	0.212	
α -Terpineol	98-55-5	8.955	0.611	Oui/Yes
Thymol methyl ether	1076-56-8	9.427	0.111	
α -Cubebene	17699-14-8	12.487	0.412	
α -Longipinene	1493692.000	12.846	0.198	
Ylangene	14912-44-8	13.236	0.169	
(-)- β -Bourbonene	5208-59-3	13.680	0.270	
Longifolene	475-20-7	14.711	1.640	

β-Caryophyllene	87-44-5	14.929	9.701	Oui/Yes
(+)-Epi-Bicyclosesquiphellandrene	54274-73-6	15.092	0.324	
β -Farnesene	28973-97-9	15.192	0.145	
Humulene	6753-98-6	15.960	1.446	
γ-Cadinene	39029-41-9	16.397	2.212	
α -Muurolene	10208-80-7	16.538	0.212	
Phenethyl isovalerate	140-26-1	16.614	0.264	
Isoledene	95910-36-4	16.779	5.174	
Copaene	3856-25-5	16.982	0.362	
α -Cadinene	24406-05-1	17.114	0.875	
Cadina-3,5-diene	267665-20-3	17.304	0.112	
γ-Cadinene	39029-41-9	17.686	1.023	
δ-Cadinene	483-76-1	17.780	2.829	
(E)-Calamene	73209-42-4	17.918	0.154	
Epizonarene	41702-63-0	17.976	0.165	
(Z,E)- α -Farnesene	26560-14-5	20.251	0.368	
Abieta-7,13-diene	35241-40-8	38.160	0.865	
			95.62 %	

Operatory conditions of analysis

- Colonne : Elite 5MS 60 m x 0.18 mm x 18 μ m
- Dilution : 1 % dans l'hexane
- Injection : 1 μ l. Split 60

Programmation en T°

Rampe	Vitesse (°C/min)	T °C	Durée (min)
Initial	-	65	0
1	30.0	135	3
2	3.0	210	0
3	30.0	290	6.57