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

Batch Number: 230118-4

Origin: Portugal

Date fabrication: AOÛT 2017

Caractéristiques d'analyse :

GC- 7820 A GC System Agilent Technologies

Colonne: HP-101 METHYL SILICONE FLUID

Programmation de température : 7mn à 130°C -40°C/mn 220°C-7mn à 220°C

Gaz vecteur N2 : 28 psis

Caractéristiques Physiques :

ESSAI	RESULTAT	METHODE
Apparence	Liquide Jaune	Conforme std
Color	pâle	Conforme std
Odeur	Caractéristique	Conforme std
Densité relative (20°C):	0.875	NSOC 57
Indice de refraction (20°C)	1.482	NSOC 68
a-Pinene	36.003%	CG
Camphene	0.513%	CG
P-Pinene	19.914 o/o	CG
P-Myrcene	8.126 °/o	CG

le 10 Août 2017

LES ANALYSES DONT LES RESULTATS SONT PRESENTES SUR CE DOCUMENT ONT ETE
EFFECTUEES PAR LE LABORATOIRE DE NOTRE FOURNISSEUR

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Acq. Operator
 Acq. Instrument GC 7820 Location Vial 1
 Injection Date 8/10/2017 9:38:36 AM Inj Volume Manually
 Method C:\CHEM32\1\METHODS\EUCALIPTO.M
 Last changed 11/6/2015 8:00:29 PM by
 Method Info METHOD: EUCALIPTO

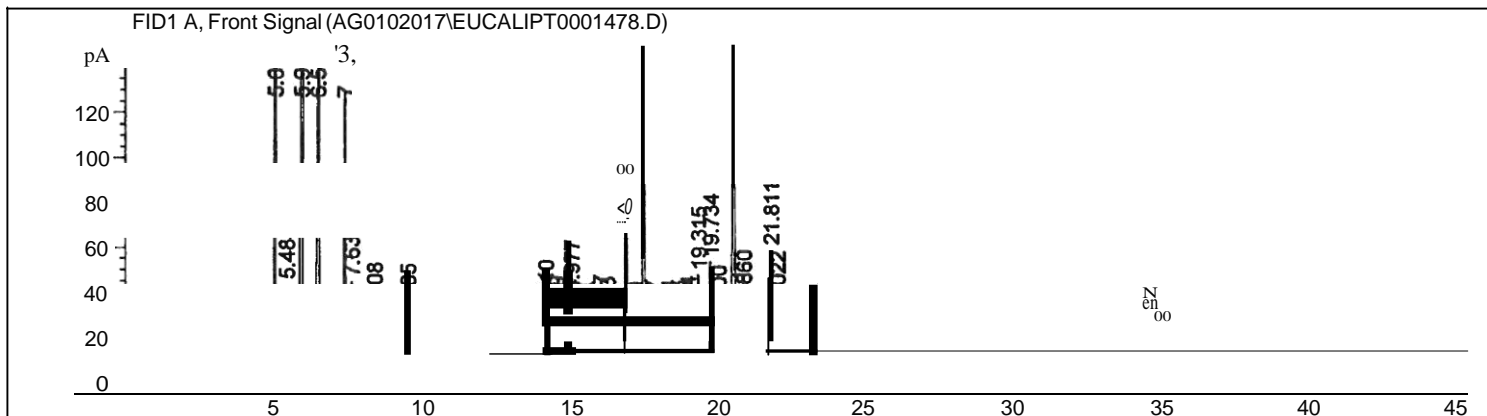
OVEN: 90°C - 10 MIN - 20°C/MIN - 150°C
 0,1 mel AMOSTRA INJECTADA PURA

SLOPE SENSITIVITY: 1

SPLIT RATIO 80:1 = 60 ML/MIN (N2)

COLUMN: SUPELCO 24081 - POLAR

Sample Info ORGANIC PINUS PINASTER ESSENTIAL OIL PORTUGAL



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 Area Percent Report
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Sorted By Signal
 Multiplier: 1.0000
 Dilution: 1.0000
 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	4.782	VV	0.0301	2.54316	1.20938	0.01917
2	4.992	VV	0.0260	6.73692	4.01164	0.05079
3	5.089	VV	0.0251	4775.84277	2857.73169	6.00304- <i>x-pinene</i>
4	5.397	VV	0.0364	10.41607	4.05033	0.07852
5	5.488	VV	0.0314	68.07858	32.75931	0.51322 <i>C-te</i>
6	5.955	BV	0.0331	2641.67822	1226.45544	19.9144 ⁵ -camphre 6-b-pinene
7	6.134	VV	0.0765	29.15539	4.96261	0.21979-s abinene
8	6.514	VV	0.0480	1077.92859	314.60040	8.12604 <i>myrcene</i>

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
9	6.740	VV	0.0964	35.32707	4.79390	0.26632
10	6.997	VV	0.0769	16.30954	2.93238	0.12295
11	7.394	VV	0.0515	420.68976	119.29993	3.17140
12	7.639	VV	0.0686	164.07817	33.81645	1.23692
13	7.919	VV	0.1088	11.61756	1.33462	0.08758
14	8.408	VB	0.0757	89.78207	17.08289	0.67683
15	9.174	VV	0.0791	10.54437	1.85508	0.07949
16	9.505	VV	0.0774	87.41774	16.62114	0.65901
17	9.752	VB	0.1023	8.33321	1.12670	0.06282
18	12.361	BB	0.1012	11.82052	1.60267	0.08911
19	12.891	VB	0.0501	4.02409	1.25885	0.03034
20	14.110	VV	0.0543	44.52672	12.52517	0.33567
21	14.296	VV	0.0582	10.15355	2.61208	0.07654
22	14.459	VV	0.0577	19.66518	5.19811	0.14825
23	14.738	VV	0.0621	21.71795	5.22083	0.16372
24	14.977	VV	0.0572	81.07257	21.28867	0.61117
25	15.176	VV	0.0758	9.10401	1.73081	0.06863
26	15.574	VV	0.0526	8.83095	2.59079	0.06657
27	15.762	VV	0.0963	15.68051	2.21273	0.11821
28	15.957	VV	0.0796	29.12267	5.62797	0.21954
29	16.203	VV	0.0606	19.84042	4.84704	0.14957
30	16.426	VV	0.0783	5.81354	1.06193	0.04383
31	16.828	VV	0.0634	234.51161	54.96213	1.76788
32	17.149	VV	0.0827	12.67908	2.42048	0.09558
33	17.426	VV	0.0615	1222.64441	303.09601	9.21699
34	17.727	VV	0.1029	25.48529	3.35775	0.19212
35	18.304	VV	0.0641	14.08817	3.41851	0.10620
36	18.488	VV	0.0786	10.89785	2.00466	0.08215
37	18.818	VV	0.0613	13.93863	3.52620	0.10508
38	18.954	VV	0.0809	27.87149	5.07001	0.21011
39	19.315	VV	0.0759	185.35931	36.11011	1.39734
40	19.734	VV	0.0747	207.01186	41.74490	1.56057
41	20.000	VV	0.1507	101.53701	9.65130	0.76544
42	20.525	VV	0.0830	780.72534	139.19089	5.88555
43	20.741	VV	0.0720	36.13648	7.31852	0.27242
44	20.860	VB	0.1134	131.10654	16.24146	0.98836
45	21.811	BV	0.0953	294.98151	47.19860	2.22374
46	22.022	VB	0.1126	124.22385	15.79111	0.93647
47	22.957	BV	0.1084	9.32135	1.28866	0.07027
48	23.103	VV	0.0994	8.21211	1.21919	0.06191
49	23.288	VB	0.1324	12.24484	1.35790	0.09231
50	24.913	BB	0.1377	12.39142	1.08749	0.09341
51	33.624	BB	0.2546	31.34539	1.55327	0.23630
52	34.892	BB	0.3568	30.54474	1.02154	0.23026

Totals: 1.32651e4 5411.05224

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 *** End of Report ***