PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: E20102

ESSENTIAL OIL: EUCALYPTUS
BOTANICAL NAME: EUCALYPTUS GLOBULUS
ORIGIN: CHINA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF EUCALYPTUS GLOBULUS OIL	%
1,8-CINEOLE	80.2
LIMONENE	8.1
γ-TERPINENE	3.5
p-CYMENE	3.2
α-PINENE	2.1
α-PHELLANDRENE	0.5
β-PINENE	0.3
α-TERPINEOL	0.03
CAMPHENE	0.01

Comments from Robert Tisserand: Very good odor quality. All 8 key constituents conform to the ISO standard for Australian type Eucalyptus globulus oil.

CUSTOMER :

PLANT THERAPY
510 2nd Avenue South
Twin Falls, ID 83301
USA

Sample nature:	ESSENTIAL OIL
Botanical species:	EUCALYPTUS GLOBULUS
Reference name:	EUCALYPTUS GLOBULUS
Batch number:	E20102
Origin:	CHINA
Part:	LEAF
Pyrenessences reference:	C794
Date of reception:	02/13/2015
Date analysis:	02/19/2015
Packaging:	Amber flask of 5 ml – ambiant temperature
Analysis:	Classic

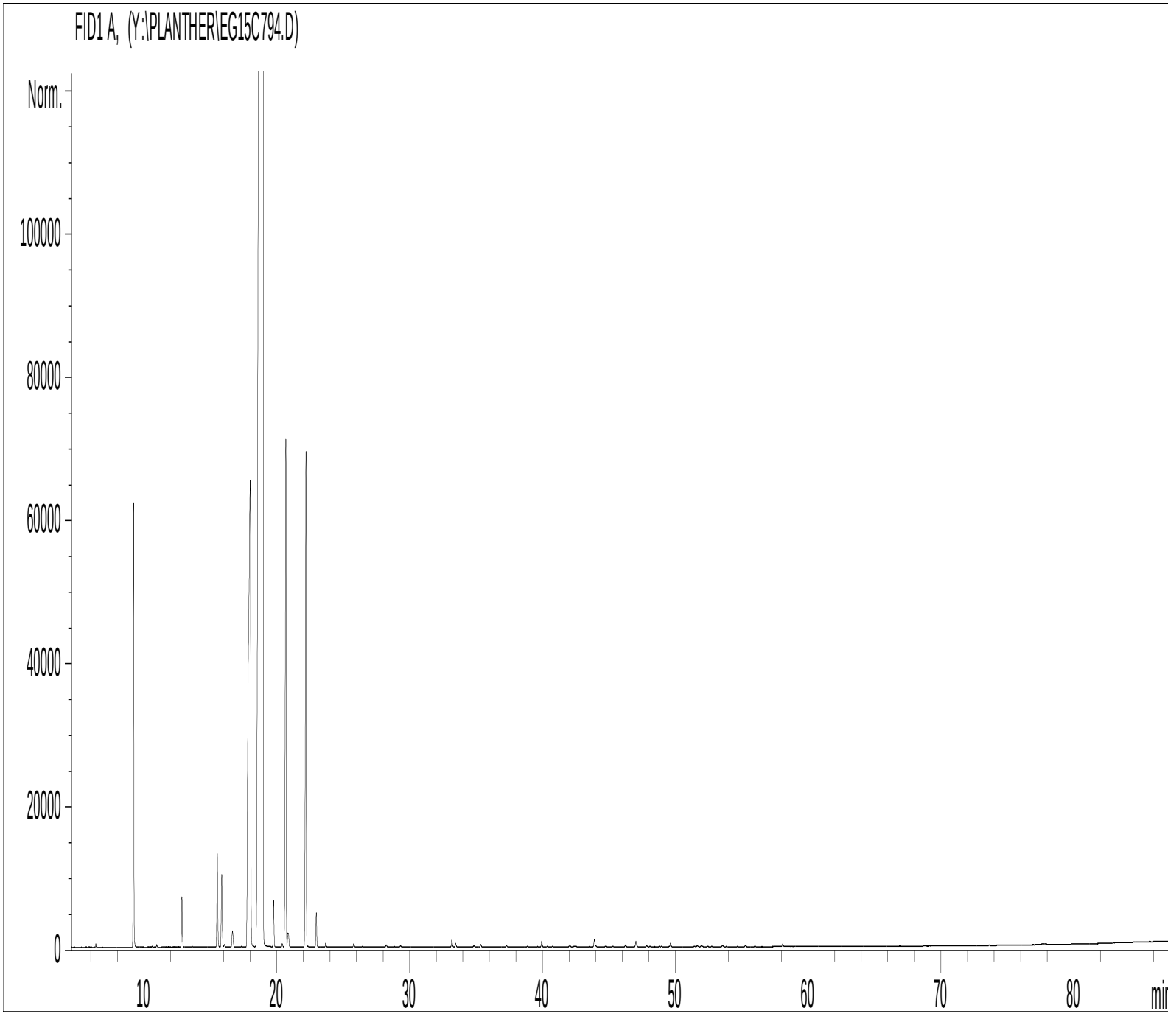
Validated report by : **Daniel DANTIN**

GAS CHROMATOGRAPHY norm NF ISO 11024

Analysis conditions :

CPG 7890 / MS 5975 AGILENT – Column : VF WAX polar 60 m × 0,25 mm × 0,5 µm
CPG 5890 FID AGILENT - Column : : HP INNOWAX polar 60 m × 0,25 mm × 0,5 µm
Temperature program : 6 mn to 60 °C –2 °C/mn→250 °C - 20mn to 250 °C
Carrier gas He : 23 psis/MS – 30 psis/FID
Sample injection / split : 1 µl of 10 % solution in hexane,
Mass range : 30 to 350, Oil components are identified by a combination of retention times (our own database) and mass spectra library NKS 75 000 records,
Percentages are calculated from GC/FID peaks areas without using corrections factors,

Chromatographic profile (GC/FID)



Identification results : EUCALYPTUS GLOBULUS CHINA BATCH N° E20102

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
1	6,4	ETHANOL	0,01		
2	9,2	**α-PINENE**	**2,14**	**0,1 – 9**	
3	9,3	α-THUYENE	0,01		
4	10,6	α-FENCHENE	0,01		
5	11,0	**CAMPHENE**	**0,01**	**Nd – 0,2**	
6	12,8	**β-PINENE**	**0,30**	**Nd – 1,5**	
7	13,6	PINADIENE	0,01		
8	15,5	β-MYRCENE	0,61		
9	15,8	**α-PHELLANDRENE**	**0,52**	**Nd – 1,5**	
10	16,1	ψ-LIMONENE	0,02		
11	16,6	α-TERPINENE	0,14		
12	18,0	**LIMONENE**	**8,09**	**0,1 – 12**	8,09
13	19,0	**1,8-CINEOLE**	**80,23**	**80 - 85**	
14	19,2	MENTHATRIENE ISOMER	0,10		
15	19,7	Cis-β-OCIMENE	0,25		
16	20,4	Trans-ARBUSCULONE	0,02		
17	20,6	**γ-TERPINENE**	**3,51**		
18	20,8	Trans-β-OCIMENE	0,07		
19	20,9	MENTHATRIENE ISOMER	0,07		
20	22,2	**p-CYMENE**	**3,21**	**0,5 - 4**	
21	22,9	TERPINOLENE	0,21		
22	23,7	ISOVALERATE D'ISOAMYLE	0,02		
23	25,8	PINOL	0,02		
24	28,2	Trans-5-METHYL-2-ISOPROPYL-2-HEXEN-1-AL	0,01		
25	33,2	α,p-DIMETHYLSTYRENE	0,05		
26	33,4	Cis-LINALOOL OXIDE	0,02		
27	35,3	Trans-LINALOOL OXIDE	0,02		
28	37,3	α-COPAENE	0,01		
29	39,9	LINALOOL	0,04		0,04
30	42,0	PINOCARVONE	0,02		
31	42,4	FENCHOL	0,02		
32	43,9	TERPINENE-4-OL	0,04		
33	44,0	β-CARYOPHYLLENE	0,01		
34	44,8	AROMADENDRENE	0,01		
35	46,2	CADINA-3,5-DIENE	0,01		
36	47,0	Trans-PINOCARVEOL	0,04		
37	47,8	ZONARENE	0,01		
38	48,0	δ-TERPINEOL	0,01		
39	49,6	**α-TERPINEOL**	**0,03**	**Nd – 12**	
40	51,6	β-SELINENE	0,01		
41	51,9	α-SELINENE	0,01		
42	53,5	δ-CADINENE	0,01		
43	55,3	CADINA-1,4-DIENE	0,01		
44	58,0	CALAMENENE	0,02		
		TOTAL	**99,99**		**8,13**