

Customer :

KOBASHI

**Higher Cotley Barn, Cotley Ballard
DUNSFORD, Devon EX6 7BH - UK.**

Sample Nature : ESSENTIAL OIL
Botanical name : CITRUS AURANTIUM AMARA
Sample name : DAIDAI CITRUS AURANTIUM AMARA
Batch number : 20208 DAIDAI OIL
Origin : CHINA
Plant part : FLOWER
Our reference : BX74

Receipt : 02/07/2020

Analysis date : 03/07/2020

Packaging : Transparent flask of 2 ml

Requested analysis : GC

Sample storage : 1 year - room temperature

The above informations are provided by the customer and sampling is under his responsibility

Comments and conclusions :

Presence of Plinol : Synthetic Linalool

Report validated by :

Daniel Dantin - *Laboratory director*



Report written by :

Laurie Assemat - *Analyst technician*

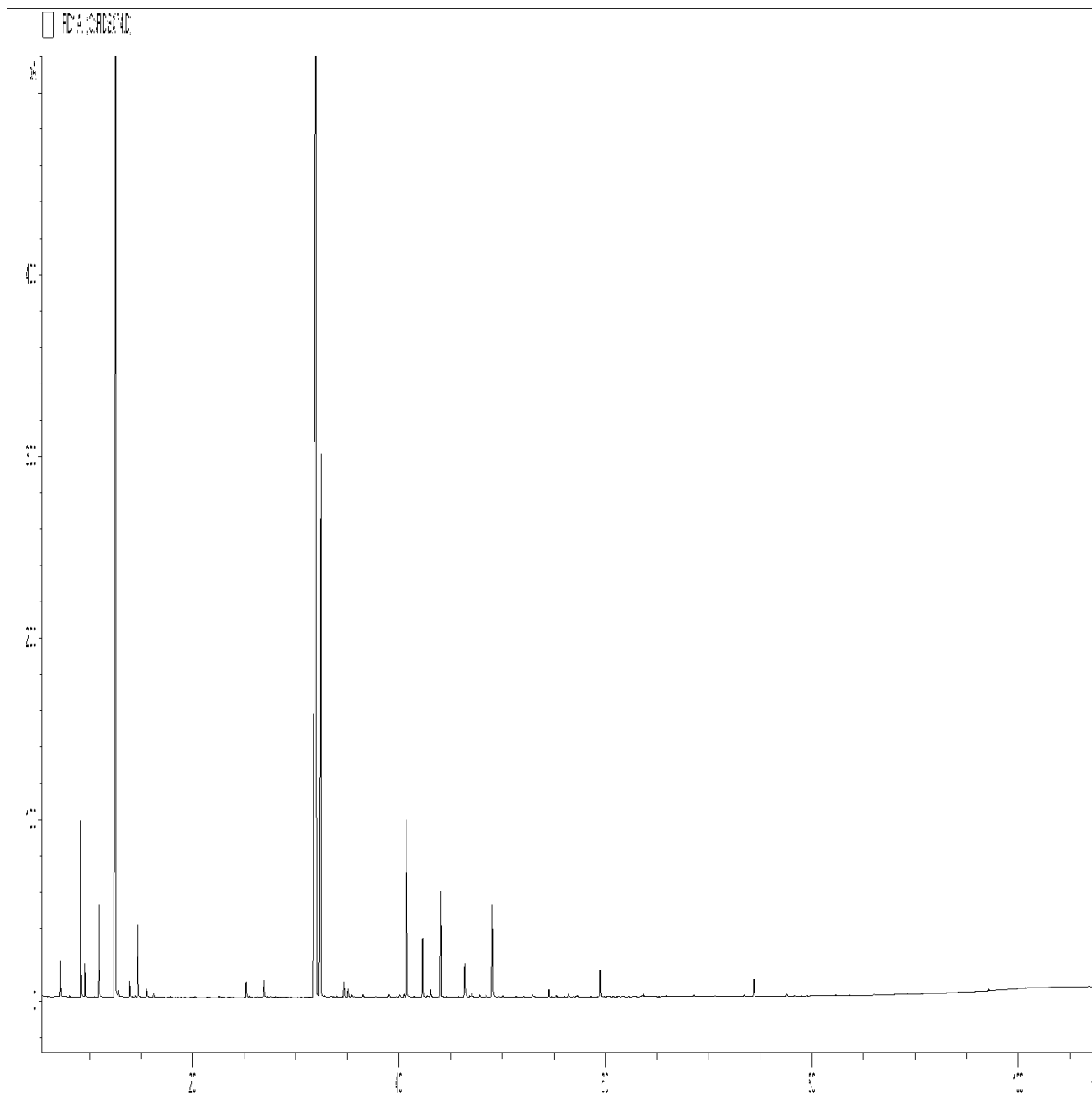


GAS CHROMATOGRAPHY (according to the norm NF ISO 11024)

Analysis conditions :

- . GC/MS Agilent 7890 / 5977 – Column : VF WAX (polaire) 60 m * 0.25 mm * 0.25 µm
- . GC/FID Agilent 6890 – Column : VF WAX (polaire) 60 m * 0.25 mm * 0.25 µm
- . Temperature program : 5 min to 60°C - 2°C/min until 250°C - 15 min 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 compounds are identified by a combination of retention times and mass spectra library (our own database and NIST commercial database).
- . Percentages are calculated from GC/FID peaks areas without using corrections factors.
- . Peaks identification limit : 0.01 %

Chromatographic profile :



Identification results : DAIDAI CITRUS AURANTIUM AMARA OIL CHINA BATCH N° 20208					
Peaks	RT (min)	Compound name	%	Norm (%)	Allergens (%)
1	5.08	ACETONE	0.06		
2	6.11	METHYL VINYL KETONE	0.02		
3	7.20	alpha-PINENE	0.31		
4	7.24	alpha-THUYENE	0.04		
5	8.11	CAMPHENE	0.02		
6	9.18	beta-PINENE	3.34		
7	9.56	SABINENE	0.38		
8	10.94	beta-MYRCENE	1.08		
9	12.55	LIMONENE	21.33		21.33
10	12.86	beta-PHELLANDRENE + cis-ARBUSCULONE	0.12		
11	13.92	Cis-beta-OCIMENE	0.20		
12	14.46	gamma-TERPINENE	0.02		
13	14.72	Trans-beta-OCIMENE	0.92		
14	15.58	p-CYMENE	0.12		
15	16.24	TERPINOLENE	0.06		
16	17.66	4,8-DIMETHYL-1,3,7-NONATRIENE	0.01		
17	22.56	ALIPHATIC ESTER	0.02		
18	22.73	ROSEFURANE	0.02		
19	25.20	LINALOOL Cis-OXIDE	0.23		
20	25.51	SESQUITERPENE	0.03		
21	26.94	LINALOOL Trans-OXIDE	0.25		
22	27.57	OCTYL ACETATE	0.02		
23	28.09	COMPOUND Mw=152	0.02		
24	32.00	LINALOOL	49.97		49.97
25	32.46	LINALYL ACETATE	11.48		
26	33.99	PLINOL	0.04		
27	34.68	beta-CARYOPHYLLENE	0.25		
28	35.08	TERPINENE-4-OL	0.14		
29	35.47	HOTRIENOL	0.03		
30	36.49	cis-p-MENTHADIEN-1-OL	0.05		
31	37.77	Trans-PINOCARVEOL	0.02		
32	38.96	alpha-HUMULENE + trans-p-MENTHADIEN-1-OL	0.06		
33	39.08	Z-beta-FARNESENE	0.04		
34	40.07	NERAL	0.05		0.05
35	40.51	TERPENYL ACETATE	0.05		
36	40.74	alpha-TERPINEOL	2.83		
37	41.45	GERMACRENE D	0.01		
38	42.30	NERYL ACETATE	0.86		
39	42.77	CARVONE	0.02		
40	43.05	GERANIAL	0.15		0.15
41	44.07	GERANYL ACETATE	1.64		
42	46.38	NEROL	0.57		
43	46.45	ISOGERANIOL	0.08		
44	46.84	Cis-EPOXY-LINALYL ACETATE	0.02		
45	47.04	2-PHENYLETHYL ACETATE	0.07		
46	47.18	Trans-EPOXY-LINALYL ACETATE	0.02		
47	47.81	3.5.7-OCTATRIENE-2-OL.E.E-2.6-DIMETHYL	0.04		
48	48.42	Trans-CARVEOL	0.04		
49	49.04	GERANIOL	1.57		1.57
50	49.16	p-CYMENE-8-OL	0.02		

Identification results : DAIDAI CITRUS AURANTIUM AMARA OIL CHINA BATCH N° 20208					
Peaks	RT (min)	Compound name	%	Norm (%)	Allergens (%)
51	50.04	Cis-CARVEOL	0.03		
52	52.94	PHENYLACETONITRILE	0.04		
53	54.51	3.7-OCTADIENE-2.6-DIOL.2.6-DIMETHYL-	0.11		
54	55.26	HEXENYLIC ESTER	0.02		
55	56.43	CARYOPHYLLENE OXIDE	0.06		
56	57.27	SESQUITERPENIC OXIDE	0.02		
57	59.49	Trans-NEROLIDOL	0.41		
58	63.56	SESQUITERPENIC OXIDE	0.03		
59	63.71	SPATHULENOL	0.06		
60	65.89	SESQUITERPENOL	0.03		
61	68.56	METHYL ANTHRANILATE	0.03		
62	70.64	SESQUITERPENOL	0.02		
63	73.43	TRICOSANE	0.02		
64	74.39	FARNESOL	0.30		0.30
65	77.55	INDOLE	0.05		
66	82.33	METHYL-N-FORMYLANTHRANILATE	0.02		
67	86.02	PHYTOL	0.02		
		TOTAL	100.00		73.38