LABORATOIRE D'ÉTUDES ET D'ANALYSES DES FLUIDES

CERTIFICATE OF ANALYSIS

PRODUCT IDENTIFICATION

CLIENT:
PRODUCT NAME : FULL SPECTRUM 02/05/2019
BATCH: CONO19-33

PHYSICO-CHEMICAL ANALYSIS

GC-MS ANALYSIS:
Extraction solution: Ethanol. 100 mg of the sample is weighed and 5 mL of extraction solvent is added. Everything is immersed for 20 minutes in an ultrasonic bath. The solution is injected into the following apparatus.

Equipment : GCMS QP2010 SE Shimadzu

Injection parameters
- ***Mode* : Split**
- ***Split ratio* : 5.0**
- ***Volume injection* : 1µL**
- ***Temperature* : 250°C**

Column parameters
- ***Type :* Rtx-VMS**
- ***Characteristics:* 30m ; 0.25mm ; 1.40µm**
- ***Mode :* Vitesse constante**
- ***Velocity :* 30.6 cm/sec**
- ***Vector gas :* Hélium**

Oven parameters
- ***Isocratic temperature* : 240°C**
- ***Total duration* : 50min**

Detector parameters
- ***Type :* MS**
- ***Model :* GCMS QP2010 SE**
- ***Source temperature :* 260°C**

Laboratoire d'Etudes et d'Analyses des Fluides (LEAF)
31-33, rue du 8 Mai 1945 – 94470 – Boissy-St-Léger
Tél : 01.70.25.73.25 / E-mail : contact@lab-leaf.com
N° SIRET : 818 276 651 00028 – Au capital de 15 000€

- ***Solvent cut time :*** **1min**

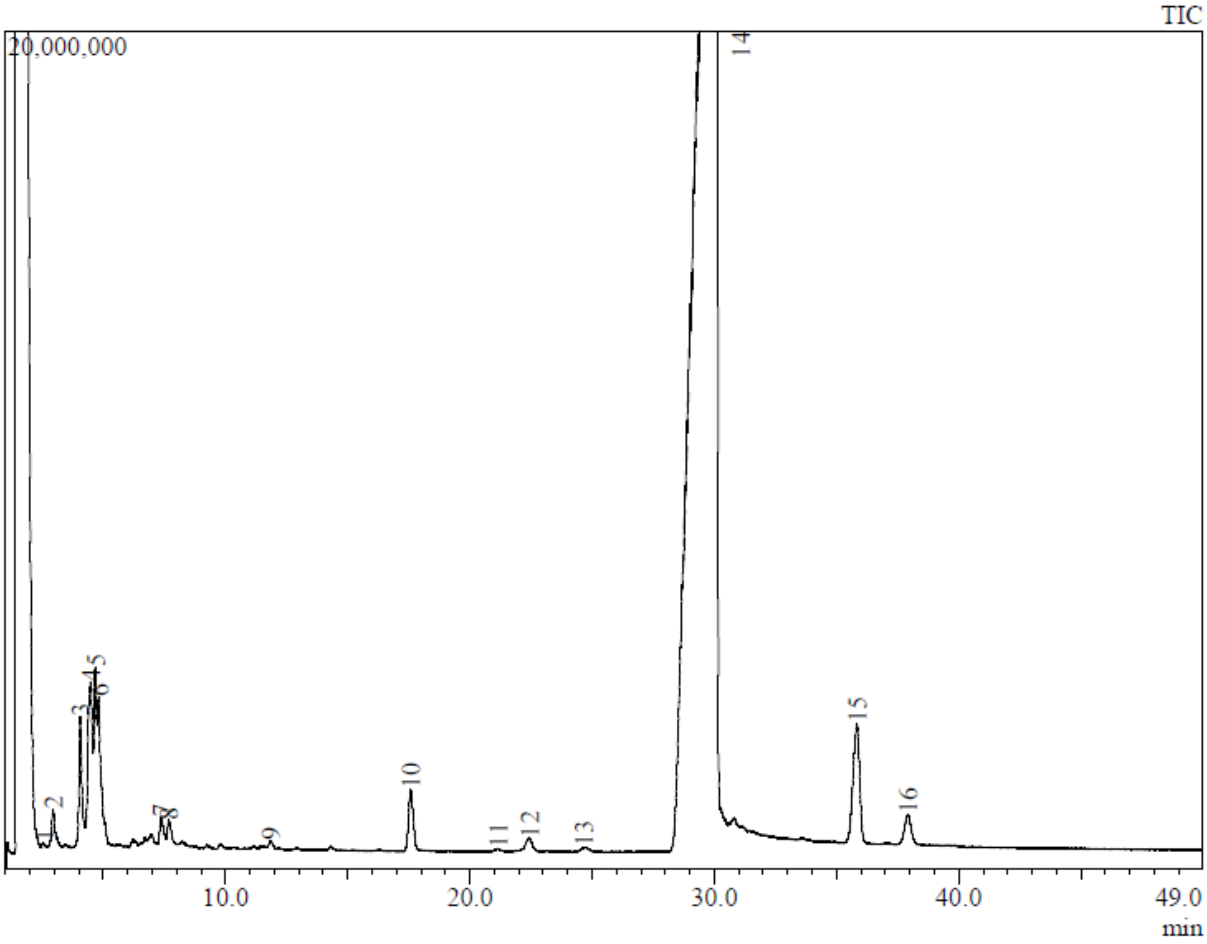

Figure 1 : GC/MS chromatogram of the sample.

Estimation of the quantity of **CBD** in the sample: **92.96 % ± 0.03 %.**

Moreover, no traces of Delta-9-tétrahydrocannabinol (THC) were not observed at the expected retention time (peak between 35.495 and 36.195 min). LOQ = 0,05% - LOD = 0,01%.

Pic	Temps de rétention (min)	Aire %	Nom	Type de composé
1	2.555	0.04	Pyrrolidine, 1-acetyl-	Terpène
2	2.946	0.35	Caryophyllene <(E)->	Terpène
3	4.051	1.29	Guaiol	Terpène
4	4.484	1.26	Caryophyllene oxide	Terpène
5	4.679	1.62	Bulnesol	Terpène
6	4.809	1.82	beta.-Eudesmol	Terpène
7	7.373	0.32	Cryptomeridiol	Terpène
8	7.671	0.32	(1R,4aR,7R,8aR)-7-(2-Hydroxypropan-2-yl)-1,4a-dimethyldecahydronaphthalen-1-ol	Terpène

9	11.843	0.12	Cannabidiorcol (CBD-C1)	Cannabinoïde
10	17.574	0.98	Cannabidivarine (CBDV)	Cannabinoïde
11	21.139	0.06	Cannabicyclol (CBL) ou Cannabichromene (CBC)	Cannabinoïde
12	22.433	0.28	Cannabidiol-C4 (CBD-C4)	Cannabinoïde
13	24.659	0.13	Cannabinol (CBN)	Cannabinoïde
14	30.104	88.17	Cannabidiol (CBD)	Cannabinoïde
15	35.829	2.59	Cannabielsoin (CBE)	Cannabinoïde
16	37.923	0.64	Autre cannabinoïde	Cannabinoïde

Figure 2 : Detected molecules with the retention time.

SEARCH FOR PESTICIDES:

The automatic pointing of the equipment is based on a very large database of organic molecules in the field of cosmetics or food. No peak corresponding to a pesticide molecule (of natural or synthetic origin) was identified in the study of the product in question.

The databases used are the following:

• NIST Library (267,376 general compounds);

• FFNSC Library (Flavor and Fragrance Natural and Synthetic Compounds), which contains more than 3,000 cosmetic compounds.

SEARCH FOR ENDOCRINE DISRUPTORS:

Taking into account the natural origin of the product extracted under conditions according to green chemistry (supercritical carbon dioxide extraction), the product can not contain endocrine disruptors which, moreover, were not detected by the equipment.

Report approved on : May, 9th 2019
Par : Elie Doppelt
R&D Manager

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