



CERTIFICATE OF ANALYSIS
COA



Mobile Phone: (+355692430707)

Website: www.esencial.al

Email: contact@esencial.al

Product Name: Sambucus nigra CO₂ Total Extract

Product Use: Raw materials for industry

Scientific Name: *Sambucus nigra*

Country of origin: Albania

Company Name: Esencial®

INCI Name: *Sambucus nigra* fruitExtract

Lot # TOT210218

Batch # 210310-C

Manufacturing Date- 03/2021

Best Before Date- 03/2030

Part Used: Elderberry

Extraction Method: SCFE CO₂

Quality: 100% Pure and Natural



**CERTIFICATE OF ANALYSIS
COA**



PROPERTIES	SPECIFICATIONS	RESULTS	METHOD
Appearance:	Dark brown	CONFORMS	Visual
Physical state	Liquid/ Viscous	CONFORMS	Organoleptic
Odor:	Natural and fresh fragrance	CONFORMS	Organoleptic
Relative Density (g/ml):	-	0.9 at 20°C	ISO 279:1998 (E)
Solubility:	Soluble in lipophilic fluids such as essential oils and vegetable oils.	CONFORMS	
Avid Value:	-	65.5	ISO 124:1999 (E)
Flash Point:	-	> 104 °C	
Boiling point:	-	80 °C	ISO/TR 11018 (E)
Melting point :	-	60 °C	
Loss of drying:	≤5.0%	0.4%	ISO 212:2007(E)
Residual Solvents:	no	CONFORMS	GC-FID
Total ashes:	-	4.0%	WHO
Shelf life:		9 years	
Storage:	Keep in tightly closed container in a cool and dry place, protected from sunlight. These are best stored in the refrigerator 2 - 10°C.		



COMPONENTS Range %

Identification	Conforms to reference standard	CONFORMS	GC-FID
-----------------------	--------------------------------	-----------------	---------------

	<u>Compound</u>	<u>%</u>
1	Decane	3.5
2	Hexanal	2.4
3	Isoamyl acetate	2.4
4	Limonene	2
5	Isoamyl alcohol	1.1
6	2-Amylfuran	1.5
7	2-Nonanone	4
8	Nonanal	2.2
9	Furfural	1.1
10	Benzaldehyde	8.9
11	Linalool	5.5
12	5-Methyl furfural	1.5
13	Bornyl acetat	2
14	Calarene	0.9
15	Hotrienol	0.6
16	Phenylacetaldehyde	32.3
17	Heptadecane	1.1
18	Octadecane	1
19	2- Phenyl ethyl acetate	1.6
20	(E)-b- damascenone	2.5
21	Ethyl dodecanoate	0.6
22	Phenyl ethyl alcohol	4.1
23	Hexahydro farnesyl acetone	1.1
24	3,4-Dimethyl-5-pentiliden-2-(5H)-furanone	0.5
25	4-Vinyl guaiacol	4.9
26	Methyl hexadecanoate	2
27	Carvacrol	0.1
28	Ethyl hexadecanoate	1.9
29	Ethyl linoleate	5.4
30	Methyl linolenate	0.1
31	Hexadecanoic acid	0.6



CERTIFICATE OF ANALYSIS
COA



HEAVY METAL TESTS	SPECIFICATIONS	RESULTS	METHOD
Lead (Pb)	≤5.0 ppm	0.3 ppm	ISO 11212 Spectrofotometry
Cadmium (Cd)	≤1.0 ppm	0.05 ppm	
Arsenic (As)	≤1.5 ppm	0.05 ppm	
Mercury (Hg)	≤0.1 ppm	<0.04 ppm	

MICROBIAL ANALYSIS	SPECIFICATIONS	RESULTS	METHOD
Bacterial Count			
<i>Staphylococcus aureus</i>	< 1000 CFU/g	CONFORMS	ISO 21149
<i>Escherichia coli</i>	< 1000 CFU/g	CONFORMS	
<i>Pseudomonas aeruginosae</i>	< 1000 CFU/g	CONFORMS	
Yeast and Mould			
<i>Candida albicans</i>	< 100 CFU/g	CONFORMS	ISO 16212
<i>Aspergillus fumigatus</i>	< 100 CFU/g	CONFORMS	

BaP	Limit 0.18 µg/kg	NOT DETECTED	Ph. Eur.
TOTAL PAHs (BaP, BaA, BbF, CHR)	Limit 0.2 µg/kg	NOT DETECTED	Ph. Eur.
PESTICIDES	Limit 0.01 mg/kg	NOT DETECTED	Ph. Eur.
AFLATOXINS B1	Limit 2 µg/kg	CONFORMS	Elisa
TOTAL AFLATOXIN (B1, B2, G1, G2)	Limit 4 µg/kg	CONFORMS	Elisa



CERTIFICATE OF ANALYSIS
COA



COMMENTS

This CO₂ total extract is a 100% pure and natural product. It does not contain any artificial ingredients or adulteration of any kind to the best of our knowledge. The analysis and statements herein constitute the most complete information available to Esencial®. This product is guaranteed by to Esencial® be of excellent quality.

DISCLAIMER: Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources Esencial® provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

DO NOT COPY

Prepared By: Ms. Megi Pashollari

Production pharmacist in ESENCIAL®

Signature

Revised by: Mrs. Lindita Vrushi

Biochemist in ESENCIAL®

Signature