

**CERTIFICATE OF ANALYSIS
COA**

Mobile Phone:	(+355692430707)
Website:	www.esencial.al
Email:	contact@esencial.al

Product Name:	Sambucus nigra CO ₂ Total Extract
Product Use:	Raw materials for industry
Scientific Name:	<i>Sambucus nigra</i>
Country of origin:	Albania
Company Name:	Esencial®
INCI Name:	<i>Sambucus nigra flower</i> Extract

Lot #	TOT190318
Batch #	191009-C
Manufacturing Date-	10/2019
Best Before Date-	10/2028

Part Used:	Elderflower
Extraction Method:	SCFE CO ₂
Quality:	100% Pure and Natural

**CERTIFICATE OF ANALYSIS
COA**

PROPERTIES	SPECIFICATIONS	RESULTS	METHOD
Appearance:	Dark brown	CONFORMS	Visual
Physical state	Solid	CONFORMS	Organoleptic
Odor:	Natural and fresh fragrance	CONFORMS	Organoleptic
Relative Density (g/ml):	-	1.2 at 20°C	ISO 279:1998 (E)
Solubility:	Soluble in lipophilic fluids such as essential oils and vegetable oils.	CONFORMS	
Avid Value:	-	72.3	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 a tightly closed container in a cool and dry place, protected from sunlight.		

**CERTIFICATE OF ANALYSIS
COA**

COMPONENTS Range %

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

	<u>Compound</u>	%
1	3-Hexanone	6.2
2	2-Hexanone	10.5
3	3-Hexanol	4
4	2-Hexanol	6.2
5	cis-Rose oxide	2.2
6	Nonanal	1.3
7	Tetradecane	1.2
8	trans-Linalool oxide	2.9
9	Hotrienol	2.6
10	Hexanoic acid	2.1
11	Nonadecane	12.3
12	Eicosane	3.5
13	Anisaldehyde	3.9
14	Heneicosane	18.8
15	Tricosane	17.3
16	(E)-Anethol	1.4
17	2-Ethyl hexanoic acid	1.7
18	2-Phenoxyethanol	1.9

**CERTIFICATE OF ANALYSIS
COA**

Secondary metabolites	Results	Method
<i>Phenolic acid</i>	<i>220 mg/gr extract</i>	<i>HPLC</i>
<i>Fatty acid</i>	<i>105 mg/gr extract</i>	<i>HPLC</i>

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.

Prepared By: Ms. Megi Pashollari

Production pharmacist in ESENCIAL®

Signature-----



Revised by: Mrs. Lindita Vrush

Biochemist in ESENCIAL®

Signature-----

