

Internal Code: A / 3863



Sample Identification

Product Name	Cinnamon Bark oil	Date Received	06/04/2022 16:29
Product Type	Essential oils	Report Issue Date	12/04/2022 16:37
Botanical Name	Cinnamomum zeylanicum Nees	DMD	07/2025
Batch	E220353 <i>Affiliate batch : ECH-220401-04</i>	Norm/Specification	Based on Ph. Eur. 04/2011:1501
Label name	CANNELLE ECORCE		
Origin	Sri lanka		

Essential Oil Authentication - Full

Organoleptic Analysis

Test	Results	Units	Specification	Method	S.O.P.
Aspect	Complies.		Clear liquid. Light yellow to reddish .	Visual	
Olfactory Profile	Complies.		Characteristic, sweet, spicy.	Panel	

Physico-Chemical Analysis

Test	Results	Units	Specification	Method	S.O.P.
Relative Density (20/20)	1.013			UNE 84156	1.00-N8.5
Refractive Index (20°C)	1.579			ISO 280	2.00-N8.5
Optical Rotation (20°C)	-1.4	°		ISO 592	3.00-N8.5

Chromatographic Analysis

Essential Oils Authentication

Technique: GC-FID + GC-MS (SIM & SCAN Mode).

GC-FID: Fingerprint Analysis. GC/MS: Trace marker compounds analysis by "Selected Ion Monitoring" mode. GC-FID: Volatile Content Analysis by Total Area Analysis.

Operating Conditions:

POLAR COLUMN: GC (FID) 8890 / MS 5977B. Column: DB_WAX UI 60m x 0.25mm x 0.5 µm. Carrier gas: Helium.

Injection: 0.1 µl (FID), 0.2 µl (MSD). Split 100:1. Mass Range: 33 to 350.

Temperature Program: 6 min at 50°C -> 2°C/min to 190°C -> 4°C/min to 220°C -> 10 min at 220°C -> 4°C/min to 240°C -> 10 min at 240°C

APOLAR COLUMN: GC (FID) 7820A. Column: HP-5MS Ultra Inert 30m x 0.25mm x 0.25 µm. Carrier gas: Helium.

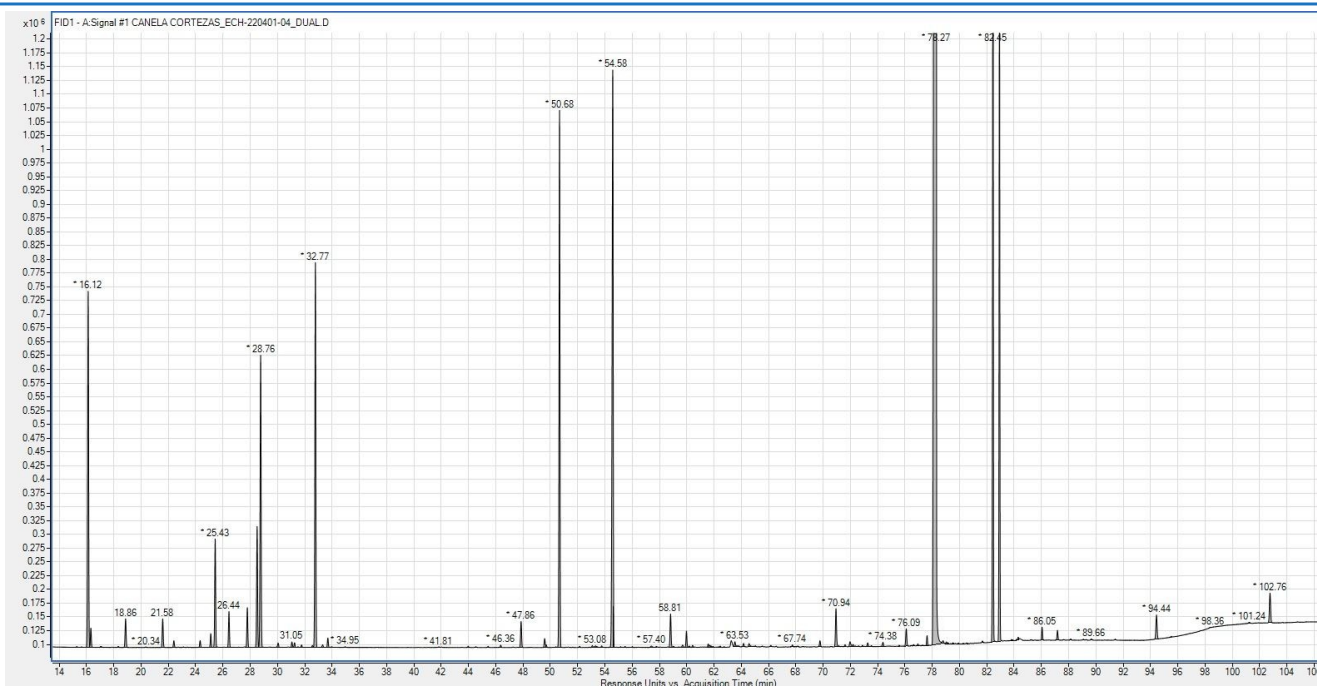
Injection: 1 µl. Split 200:1. Flow rate 1ml/min.

Temperature Program: 0 min at 50°C -> 3°C/min to 240°C -> 10 min at 240°C.

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Chromatogram



RT	Compounds	CAS N°	% (Relative)	Specification	Chemical Family	IFRA Restriction
7.44	Acetone	67-64-1	0.01		Aliphatic ketone	
15.29	Tricyclene	508-32-7	0.01		Monoterpene	
16.12	Alpha-Pinene	80-56-8	2.94		Monoterpene	
16.32	Alpha-Thujene	2867-05-2	0.14		Monoterpene	
18.34	Alpha-Fenchene	471-84-1	0.01		Monoterpene	
18.86	Camphene	79-92-5	0.25		Monoterpene	
21.58	Beta-Pinene	127-91-3	0.24		Monoterpene	
22.4	Sabinene	3387-41-5	0.05		Monoterpene	
24.33	Delta-3-Carene	13466-78-9	0.05		Monoterpene	
25.11	Beta-Myrcene	123-35-3	0.10		Monoterpene	
25.43	Alpha-Phellandrene	99-83-2	0.85		Monoterpene	
26.44	Alpha-Terpinene	99-86-5	0.28		Monoterpene	
27.79	Limonene	5989-27-5	0.31		Monoterpene	Cosmetic Allergen
28.5	Beta-Phellandrene	555-10-2	0.98		Monoterpene	
28.76	1,8-Cineole	470-82-6	2.47		Monoterpenic ether	
30.04	Cis-Beta-Ocimene	3338-55-4	0.04		Monoterpene	
31.05	Gamma-Terpinene	99-85-4	0.04		Monoterpene	

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31.25	Trans-Beta Ocimene	3779-61-1	0.03		Monoterpene	
32.56	m-Cymene	535-77-3	0.02		Monoterpene	
32.77	Para-Cymene	99-87-6	3.03		Monoterpene	
33.31	2-Methyl Butyl-2-Methyl Butyrate	2445-78-5	0.02		Aliphatic ester	
33.69	Alpha-Terpinolene	586-62-9	0.07		Monoterpene	
43.98	Alpha-p-Dimethylstyrene	1195-32-0	0.01		Monoterpene	
44.53	Cis-Linalool Oxide (Furanoid)	5989-33-3	0.01		Monoterpenic epoxide	
45.44	Alpha-Cubebene	17699-14-8	0.01		Sesquiterpene	
46.36	Trans-Linalool Oxide (Furanoid)	34995-77-2	0.02		Monoterpenic epoxide	
47.86	Alpha-Copaene	3856-25-5	0.22		Sesquiterpene	
49.58	Benzaldehyde	100-52-7	0.08		Aromatic aldehyde	Dermal Sens. and Systemic Tox.
49.69	Camphor	76-22-2	0.02		Monoterpenic ketone	
50.68	Linalool	78-70-6	4.06		Monoterpenic alcohol	Cosmetic Allergen
52.14	Trans-Para-Menth-2-en-1-ol	29803-82-4	0.01		Monoterpenic alcohol	
53.76	Trans-Beta Elemene	515-13-9	0.01		Sesquiterpene	
54.58	Trans-Beta Caryophyllene	87-44-5	5.33		Sesquiterpene	
54.64	Terpinen-4-ol	562-74-3	0.04		Monoterpenic alcohol	
56.01	Cis-Para-Menth-2-en-1-ol	29803-82-5	0.01		Monoterpenic alcohol	
58.81	Alpha-Humulene	6753-98-6	0.29		Sesquiterpene	
59.98	Alpha-Terpineol	98-55-5	0.13		Monoterpenic alcohol	
60.2	Ledene	21747-46-6	0.01		Sesquiterpene	
60.43	Borneol	507-70-0	0.02		Monoterpenic alcohol	
61.57	Beta-Bisabolene	495-61-4	0.02		Sesquiterpene	
63.53	Delta-Cadinene	483-76-1	0.05		Sesquiterpene	
64.16	Ar-Curcumene	644-30-4	0.03		Sesquiterpene	
64.57	Phenyl Propionic Aldehyde	104-53-0	0.04		Aromatic aldehyde	
66.56	Phenethyl Acetate	103-45-7	0.01		Phenolic ester	
67.74	Trans-Calamenene	73209-42-4	0.02		Sesquiterpene	
68.13	Para-Cymen-8-ol	1197-01-9	0.01		Monoterpenic alcohol	
69.76	Safrole	94-59-7	0.05		Phenolic ether	Prohibition/Restriction

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70.94	Z-Cinnamaldehyde	57194-69-1	0.34		Phenylpropanoid	Cosmetic Allergen/ S.Toxicity
71.61	Phenethyl Alcohol	60-12-8	0.02		Aromatic alcohol	
71.97	Tetradecanal	124-25-4	0.06		Aliphatic aldehyde	
73.26	3-Phenyl Propyl Acetate	122-72-5	0.03		Monoterpenic ester	
74.38	Ortho-Anisaldehyde	135-02-4	0.04		Aromatic aldehyde	
76.09	Caryophyllene Oxide	1139-30-6	0.16		Sesquiterpenic epoxide	
77.62	Trans-Nerolidol	40716-66-3	0.07		Sesquiterpenic alcohol	
78.27	E-Cinnamaldehyde	104-55-2	65.25		Phenylpropanoid	Cosmetic Allergen/ S.Toxicity
78.79	Humulene Epoxide II	19888-34-7	0.03		Sesquiterpenic epoxide	
82.45	E-Cinnamyl Acetate	21040-45-9	5.85		Phenylpropanoid	
82.93	Eugenol	97-53-0	4.42		Phenylpropanoid	Cosmetic Allergen/ S.Toxicity
86.05	Eugenyl Acetate	93-28-7	0.09		Phenylpropanoid	
87.17	Cinnamic Alcohol	104-54-1	0.08		Phenylpropanoid	Cosmetic Allergen/ S.Toxicity
94.44	Trans-Ortho-Methoxy-Cinnam aldehyde	1504-74-1	0.24		Phenylpropanoid	Dermal Sensitization
102.76	Benzyl Benzoate	120-51-4	0.30		Phenolic ester	Cosmetic Allergen/ S.Toxicity
Total Identified (%)		99.43				
Total Area:		1.1E+8				

Conclusion

No synthetic markers have been detected by GC/MS analysis (SCAN mode).
The level of biomarkers are OK.
In the olfactory profile, the sample corresponds to our standard.
Compared to the previous samples, the chromatographic profiles are very similar.
The sample seems 100% pure & natural.

Checked & Approved by:

Andrea Villa
GC/MS Analyst