



CERTIFICATE of ANALYSIS (COA)

COMMON NAME	Fir, Balsam Absolute
LATIN NAME	<i>Abies balsamea</i>
COUNTRY OF ORIGIN	Canada
CULTIVATION METHOD	Wild Grown
TYPE	Absolute
EXTRACTION METHOD	Solvent Extracted
PLANT PART	Needles
USE	Natural Perfumery

SKU	325
LOT #	20
MANUFACTURING DATE	June 2021
BEST BY DATE	June 2026

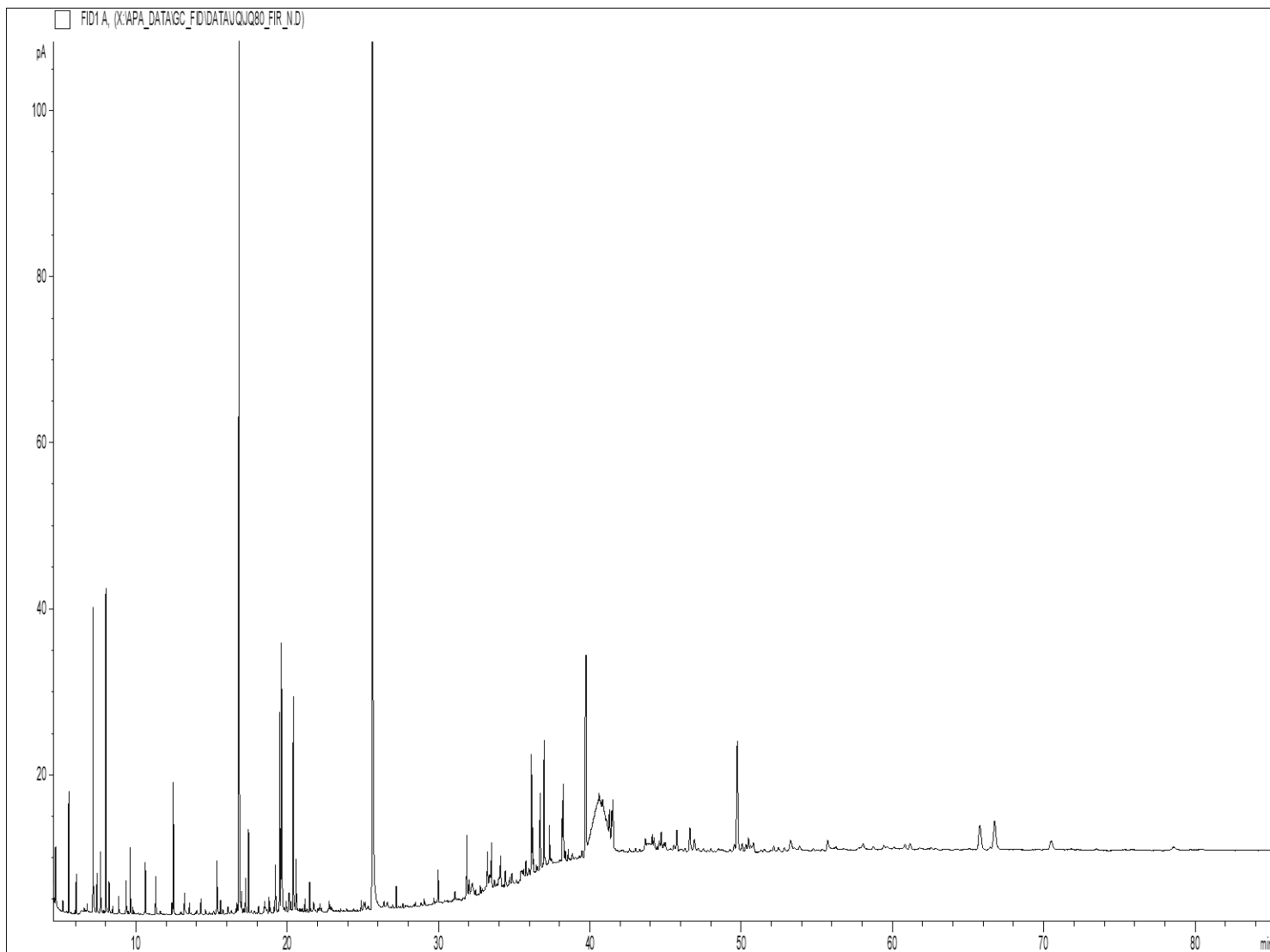
	SPECIFICATIONS (Range)	
SPECIFIC GRAVITY @20°C	<i>na</i>	<i>na</i>
REFRACTIVE INDEX @20°C	<i>na</i>	<i>na</i>
OPTICAL ROTATION @20°C	<i>na</i>	<i>na</i>

PHYSICAL APPEARANCE	Thick resinous substance, solid at room temperature.	<i>Conforms</i>
COLOR	Dark brown	<i>Conforms</i>
ODOR	Sweet, fresh, fruity and balsamic.	<i>Conforms</i>
SOLUBILITY	Soluble in alcohol and fixed oils	
SPECIAL USE INSTRUCTIONS	Dilute before use. This product will require intense heating to liquefy.	

PRIMARY CONSTITUENTS	Bornyl Acetate, Abienol.
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THIRD PARTY LAB ANALYSIS (GCMS)

CHROMATOGRAPHIC PROFILE:



- FIR BALSAM ABS - SKU 325 LOT 20 -

Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
1	4.68	ETHANOL	0.47		
2	5.16	SANTENE	0.08		
3	5.55	alpha-PINENE	0.77		
4	6.05	CAMPHENE	0.25		
5	7.16	delta3-CARENE	1.98		
6	7.41	alpha-PHELLANDRENE	0.27		
7	7.65	alpha-TERPINENE	0.43		
8	8.00	LIMONENE	2.21		2.21
9	8.22	beta-PHELLANDRENE	0.25		
10	8.85	gamma-TERPINENE	0.12		
11	9.35	p-CYMENE	0.24		
12	9.63	TERPINOLENE	0.47		
13	10.62	COMPOUND Mw=172	0.40		
14	11.31	ALIPHATIC ESTER	0.35		
15		2-PENTANONE, 4-HYDROXY-4-METHYL-			
16	12.37	FENCHONE	0.09		
17	12.47	COMPOUND Mw=172	1.08		
18	13.21	alpha,p-DIMETHYLSTYRENE	0.21		
19	13.53	TERPENIC COMPOUND Mw=136	0.08		
20	14.29	alpha-LONGIPINENE	0.13		
21	15.35	CAMPHOR	0.57		
22	15.60	PINOCAMPHONE	0.12		
23	16.09	LINALOOL	0.08		0.08
24	16.68	TERPENIC COMPOUND	0.13		
25	16.81	BORNYL ACETATE	7.93		
26	16.98	alpha-trans-BERGAMOTENE	0.21		
27	17.11	CAMPHENE HYDRATE	0.07		
28	17.25	TERPINENE-4-OL	0.35		
29	17.44	beta-CARYOPHYLLENE	0.70		
30	18.11	MYRTENAL	0.07		
31	18.51	trans-PINOCARVEOL	0.15		
32	18.57	SESQUITERPENE	0.06		
33	18.80	DIETHYL SUCCINATE	0.15		
34	19.13	CRYPTONE	0.07		
35	19.22	alpha-HUMULENE	0.48		
36	19.50	alpha-TERPINEOL	1.73		
37	19.62	BORNEOL	3.54		
38	19.83	SESQUITERPENE	0.07		
39	19.93	11-alpha-HIMACHALA-1,4-DIENE	0.16		
40	20.11	VERBENONE	0.20		
41	20.15	beta-HIMACHALENE	0.17		
42	20.24	CADINENE ISOMER	0.13		
43	20.40	beta-BISABOLENE	1.76		

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Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
44	20.44	alpha-MUUROLENE	0.20		
45	20.58	PIPERITONE	0.53		
46	21.16	delta-CADINENE	0.15		
47	21.47	trans-alpha-BISABOLENE	0.26		
48	21.74	MYRTENOL	0.19		
49	22.15	TERPENIC COMPOUND	0.11		
50	22.77	AROMATIC COMPOUND	0.12		
51	22.93	AROMATIC COMPOUND	0.07		
52	24.87	alpha-CALACORENE	0.09		
53	25.05	TERPENIC COMPOUND	0.15		
54	25.14	TERPENIC COMPOUND	0.10		
55	25.35	ALIPHATIC ESTER	0.08		
56	25.63	MALTOL	24.01		
57	25.97	TERPENIC COMPOUND	0.08		
58	26.39	TERPENIC COMPOUND	0.08		
59	26.60	AROMATIC COMPOUND	0.10		
60	27.20	NEROLIDOL	0.18		
61	27.95	ETHYL MYRISTATE	0.09		
62	28.84	AROMATIC COMPOUND	0.07		
63	29.04	SESQUITERPENIC OXIDE	0.07		
64	29.69	SESQUITERPENIC COMPOUND	0.06		
65	29.97	THYMOL	0.30		
66	31.08	ALIPHATIC ESTER	0.14		
67	31.86	ETHYL PALMITATE	0.70		
68	32.02	AROMATIC COMPOUND	0.28		
69	32.23	DITERPENE	0.55		
70	32.45	AROMATIC COMPOUND	0.09		
71	32.75	AROMATIC COMPOUND	0.12		
72	32.89	DITERPENE	0.07		
73	33.23	ALIPHATIC ESTER	0.74		
74	33.36	DITERPENE	0.35		
75	33.49	DITERPENE	0.65		
76	33.68	DITERPENE	0.21		
77	33.85	SESQUITERPENIC COMPOUND	0.16		
78	34.03	AROMATIC COMPOUND	0.30		
79	34.09	COMPOUND Mw=275	0.38		
80	34.41	COMPOUND Mw=275	0.25		
81	34.69	ALIPHATIC ESTER	0.14		
82	34.84	BENZOIC ACID	0.22		
83	35.13	AROMATIC COMPOUND	0.09		
84	35.49	ALIPHATIC ESTER	0.30		
85	35.61	AROMATIC COMPOUND	0.21		
86	35.77	ALIPHATIC ESTER	0.25		

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Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
87	35.97	ALIPHATIC ESTER	0.23		
88	36.14	ETHYL OLEATE	1.08		
89	36.20	DITERPENE	0.49		
90	36.27	ALIPHATIC ESTER	0.18		
91	36.46	TERPENIC COMPOUND	0.10		
92	36.53	AROMATIC COMPOUND	0.08		
93	36.71	COMPOUND Mw=290	0.96		
94	36.89	AROMATIC COMPOUND	0.09		
95	36.97	ETHYL LINOLEATE	1.17		
96	37.04	AROMATIC COMPOUND	0.18		
97	37.33	TERPENIC COMPOUND	0.49		
98	37.44	AROMATIC COMPOUND	0.14		
99	38.17	METHYL LINOLEATE ISOMER	0.43		
100	38.24	METHYL IONONE ISOMER	0.94		
101	38.38	PHYTOL	0.12		
102	38.56	AROMATIC COMPOUND	0.11		
103	38.83	COMPOUND Mw=290	0.13		
104	39.32	TERPENIC COMPOUND	0.07		
105	39.47	AROMATIC COMPOUND	0.12		
106	39.74	trans-ABIENOL	3.76		
107	40.61	cis-ABIENOL	12.16		
108	41.28	ABIENOL ISOMER	0.31		
109	41.44	AROMATIC COMPOUND	0.40		
110	41.52	SESQUITERPENIC COMPOUND	0.59		
111	43.66	AROMATIC ESTER	0.15		
112	43.79	AROMATIC COMPOUND	0.08		
113	44.12	AROMATIC COMPOUND	0.15		
114	44.24	TERPENIC COMPOUND	0.14		
115	44.57	AROMATIC COMPOUND	0.16		
116	44.71	PALMITIC ACID	0.30		
117	44.90	AROMATIC COMPOUND	0.12		
118	44.99	TERPENIC COMPOUND	0.13		
119	45.56	COMPOUND Mw=286	0.12		
120	45.74	COMPOUND Mw=286	0.37		
121	46.60	HOMOVANILLIC ACID	0.52		
122	46.90	AROMATIC COMPOUND	0.33		
123	47.16	AROMATIC COMPOUND	0.11		
124	47.51	TERPENIC COMPOUND	0.08		
125	48.00	TERPENIC COMPOUND	0.06		
126	48.51	TERPENIC COMPOUND	0.12		
127	49.54	AROMATIC COMPOUND	0.14		
128	49.74	COMPOUND Mw=286	2.32		
129	50.07	AROMATIC COMPOUND	0.14		

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Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
130	50.31	AROMATIC COMPOUND	0.14		
131	50.48	METHYL DEHYDROABIETATE	0.28		
132	50.63	COMPOUND Mw=300	0.13		
133	50.80	METHYL ABIETATE	0.25		
134	51.52	AROMATIC COMPOUND	0.07		
135	52.15	AROMATIC COMPOUND	0.14		
136	52.44	AROMATIC COMPOUND	0.11		
137	52.86	AROMATIC COMPOUND	0.07		
138	53.26	ALIPHATIC ESTER	0.34		
139	53.86	AROMATIC COMPOUND	0.09		
140	55.72	AROMATIC COMPOUND	0.29		
141	58.05	COMPOUND Mw=288	0.15		
142	58.73	AROMATIC COMPOUND	0.07		
143	59.42	AROMATIC COMPOUND Mw=312	0.10		
144	59.65	AROMATIC COMPOUND	0.07		
145	60.83	AROMATIC COMPOUND	0.14		
146	61.17	AROMATIC COMPOUND	0.16		
147	65.78	COMPOUND Mw=288	0.97		
148	66.74	AROMATIC COMPOUND	1.09		
149	70.51	AROMATIC COMPOUND	0.36		
		TOTAL	96.91		2.28

This Absolute 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 Eden Botanicals. This product is guaranteed by Eden Botanicals to be of excellent quality.

Eden Botanicals

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