



Gas Chromatography Analysis

Dear Customer,

Attached you will find the results of gas chromatographic analysis based on the information provided by our Producer/Laboratory for:

Sample Reference **1097**

We testify that the Chromatographic Analysis (GC) for the mentioned sample is identical with:

Product No.:	1097
Product Name:	Artemisia ludoviciana
Botanical Name:	Artemisia ludoviciana
Batch No.:	1020088

Bühl, 2020-03-13

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Dr. David Nayan

Pk#	Component Name	R.Time	Area%
1	2-Methyl 3-buten-2-ol	3.626	0.04
2	Isobutyl alcohol	3.749	0.04
3	Unidentified	4.067	0.17
4	2-Methylbutanal	4.165	0.11
5	2-Methyl 3-buten-2-one	4.249	0.02
6	2-Methyl 2-pentene	4.445	0.40
7	3-Methyl 1-penten-3-ol	4.975	0.03
8	1-Pentanol	5.227	0.01
9	2-Methyl butanol	5.294	0.42
10	3-Methyl 2-pentanone	5.601	0.03
11	2-Methyl 3-penten-1-ol	5.701	0.08
12	3-Methyl pentanal	5.987	0.03
13	Methyl 2-methylbutyrate	6.159	0.02
14	Unidentified	8.331	0.02
15	2-Methylbutyl acetate	9.698	0.09
16	Unidentified	10.267	0.05
17	Santolina triene	10.801	0.66
18	Unidentified	11.167	0.02
19	Unidentified	11.400	0.08
20	2,4,6-Trimethyl-1,3,6-heptatriene	11.846	0.52
21	Tricyclene	11.907	0.06
22	alpha-Pinene	12.476	0.19
23	Unidentified	13.104	0.07
24	Camphene	13.389	1.52
25	Arthole	14.628	0.79
26	beta-Pinene	14.967	0.12
27	Unidentified	15.661	0.03
28	Yomogi alcohol	15.933	15.84
29	Isobutyl 2-methylbutyrate	16.381	0.04
30	Unidentified	16.564	0.04
31	2-Methylbutyl isobutyrate	17.202	0.25
32	para-Cymene	17.811	0.21
33	Limonene	18.111	0.07
34	Unidentified	18.206	0.05
35	1,8-Cineole	18.308	2.28
36	Unidentified	19.503	0.16
37	Unidentified	19.723	0.15
38	Unidentified	19.941	0.21
39	Unidentified	20.527	0.29
40	Unidentified	20.805	0.05
41	Artemisia alcohol	21.409	7.52
42	Linalool	22.772	0.81
43	2-Methylbutyl-2-methylbutyrate	23.003	0.25
44	2-Methylbutyl isovalerate	23.384	0.05
45	Unidentified	24.630	0.20
46	Unidentified	25.379	0.09
47	trans-Pinocarveol	25.605	0.15
48	Unidentified	25.763	0.36
49	Camphor	26.045	9.37

50	trans-para-Mentha-2,8-dienol	26.432	0.06
51	cis-Chrysanthemyl alcohol	26.601	0.53
52	beta-Artemisia acetate	27.204	49.72
53	Borneol	27.772	0.83
54	Menthol	28.172	0.06
55	Terpinen-4-ol	28.367	0.24
56	alpha-Terpineol	29.379	0.13
57	Unidentified	29.731	0.06
58	Unidentified	30.479	0.15
59	Unidentified	32.684	0.04
60	Unidentified	32.965	0.07
61	Chrysanthemyl acetate	33.593	0.10
62	Unidentified	34.948	1.57
63	Bornyl acetate	35.458	1.13
64	Unidentified	35.843	0.04
65	Unidentified	36.528	0.07
66	Unidentified	36.685	0.14
67	Unidentified	37.347	0.12
68	alpha-Copaene	41.517	0.05
69	Unidentified	42.025	0.15
70	Unidentified	42.917	0.08
71	Unidentified	44.054	0.07
72	beta-Caryophyllene	44.316	0.06
73	Unidentified	48.161	0.09
74	trans-Nerolidol	52.976	0.04
75	Unidentified	53.986	0.06
76	Unidentified	57.807	0.21
77	Unidentified	58.240	0.05