



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 **1001**

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

Product No.:	1001
Product Name:	African Bluegrass
Botanical Name:	Cymbopogon validus
Batch No.:	1013370

Bühl, 2020-03-12

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Dr. David Nayan

Retention Time	Area	Area %
1.389	13034249	0.038 Acetone
6.343	21075923	0.062 an aldehyde ?
11.384	22601722	0.066 Dimethyl pentanone
13.754	23356045	0.069 toe of next
13.926	541724917	1.589 Tricyclene
14.781	1379340465	4.046 a-Pinene
15.605	1557131147	4.568 Camphene
17.170	140497135	0.412 Sabinene
18.694	3947957913	11.581 Myrcene
19.058	20605309	0.060 a-Phellandrene
19.195	14767801	0.043 Octanal
20.188	17403696	0.051 p-Cymene
20.425	594903661	1.745 Limonene
21.270	965361978	2.832 t,b-Ocimene
21.794	555262874	1.629 b-Ocimene
22.179	15184065	0.045 g-Terpinene
22.756	19464124	0.057 no ID
23.307	2158767410	6.333 4-Nonanone
23.812	148322828	0.435 Terpinolene
24.244	19552030	0.057 no ID ; HC
25.034	5138679860	15.074 Linalool
25.487	16298978	0.048 no ID;HC
26.731	15618617	0.046 Camphor
26.958	22530346	0.066 Camphene hydrate
27.452	196459334	0.576 Citronellal
28.002	339702639	0.997 Borneol
28.543	109449260	0.321 4-Terpineol
29.311	271085558	0.795 a-Terpineol
29.512	28249788	0.083 cis-Decanal
30.125	164101790	0.481 Decanal
31.833	48934575	0.144 Neral
32.381	138908343	0.407 Piperitone
32.855	1528090450	4.483 Geraniol
33.348	178683696	0.524 Geranial
33.532	617821548	1.812 4-Undecanone
33.986	363520215	1.066 Bornyl acetate
34.826	46010946	0.135 Geranyl formate
36.333	31695058	0.093 delta-Elementene
36.884	22861963	0.067 a-Cubebene
37.208	50650148	0.149 Citronellyl acetate
37.522	32700603	0.096 Cyclosativene
37.627	23334564	0.068 isomer
37.850	23993754	0.070 a-Ylangene
38.054	22365008	0.066 a-Copaene
38.459	83365955	0.245 b-Bourbonene
38.616	250333718	0.734 Geranyl acetate
38.870	387520322	1.137 b-Elementene
39.535	11508364	0.034 no ID
40.019	397982532	1.167 b-Caryophyllene
40.428	23663991	0.069 no ID
40.838	61728537	0.181 Aromadendrene
41.082	15941029	0.047 no ID
41.492	212534329	0.623 a-Humulene
41.783	27529749	0.081 t,b-Farnesene
41.891	36480867	0.107 epi-Bicyclosquiphellandrene
42.411	37023537	0.109 g-Murolene
42.738	811584276	2.381 Germacrene D
43.161	75836182	0.222 t-Murola-4(14)-5-diene
43.415	458259712	1.344 Valencene
43.599	209529782	0.615 a-Amorphene

43.785	418182344	1.227	Germacrene A
44.145	225951396	0.663	Muurolene isomer
44.356	763143625	2.239	g-Cadinene
44.600	729125732	2.139	delta-Cadinene
44.903	74864786	0.220	t-Cadina-1,4-diene
45.113	74302708	0.218	a-Cadinene
45.724	327863145	0.962	Elemol
45.887	260415635	0.764	Germacrene B
46.335	62223978	0.183	Nerolidol
46.802	1310939731	3.846	mw = 222;no ID
47.353	60043683	0.176	Lepidozene ?
47.554	211543670	0.621	D.E.P.
47.784	41857493	0.123	tail “
47.984	346526275	1.017	5-epi-7-epi-a-Eudesmol
48.680	1667013719	4.890	mw = 222; no ID
49.134	245334606	0.720	mw = 222;no ID
49.412	450746524	1.322	epi-a-Cadinol
49.941	597125037	1.752	a-Cadinol
50.431	105646664	0.310	NO ID
50.990	263839449	0.774	Bisabolol
51.443	125534850	0.368	Juniper camphor
51.936	338173475	0.992	Farnesyl acetate
53.053	85468946	0.251	a bicyclo nonane derivative
53.330	245863156	0.721	Dimethyl hex-4-ene-3-methyl cyclohex-2-enone
55.753	77020198	0.226	no ID
56.604	18871100	0.055	HC
60.538	153823755	0.451	Trimethyl-3-methylene hexadeca tetraene
60.862	36902047	0.108	D.iso.B.P.
61.673	62320700	0.183	isomer of 60.53
