

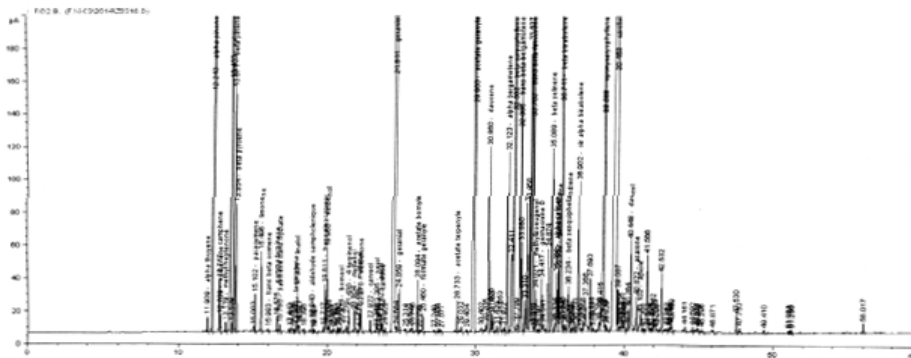
TECHNICAL INFORMATIONS (SPEC/COA/GC)

Product Name	: Carrot Seed	RESULT
Botanical Name	: Daucus carota	
Description	: Pale yellow to amber liquid.	<u>COMPLIES</u>
Specific Gravity (20° C)	: 0.880 - 0.980	<u>0.9150</u>
Refractive Index (20° C)	: 1.4880 - 1.5100	<u>1.4900</u>
Optical Rotation	: -33° - +20°	<u>-9.2°</u>
Shelf Life	: 24 Months	

MAIN CONSTITUENTS - GC Analysis

1. Carotol	29.32%	6. β-Bisabolene	4.55%
2. Geraniol	9.42%	7. α-Pinene	3.80%
3. Geranyl acetate	7.53%	8. Epoxycaryophyllene	3.37%
4. Sabinene	6.73%	9. Trans-β-farnesene	2.82%
5. β-Caryophyllene	5.80%	10. α-Bisabolene	1.03%

Instrument : GC 6890 MS 5973
Column : DB1 60m * 0.25mm * 0.25µm
Carrier gas : Helium
Oven : 70°C – 3°C/min – 250°C for 20 min.



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TR	Compound	% GC FID
11.909	alpha thuyene	0,08
12.243	alpha pinene	3,80
12.717	camphene	0,28
12.789	verbenene	0,08
13.119	methyl heptenone	0,06
13.453	sabinene	6,73
13.671	beta pinene	1,46
13.854	beta myrcene	0,65
15.102	paracymene	0,20
15.496	limonene	0,46
15.993	trans beta ocimene	0,02
16.575	gamma terpinene	0,08
16.785	sabinene trans hydrate	0,04
17.840	terpinolene	0,03
17.931	linalol	0,25
	beta thuyone	Tr
18.940	aldehyde campholenique	0,08
	camphre	Tr
19.811	trans pinocarveol	0,3
19.956	verbenol	0,54
20.914	borneol	0,07
21.430	4 terpinenol	0,15
	estragole	Tr
21.804	myrtenal	0,16
22.155	myrtenol	0,12
22.270	verbenone	0,16
22.922	carveol	0,08
23.385	nerol	0,16
23.623	neral	0,12
23.732	carvone	0,06
24.544	geraniol	9,42
24.859	geranial	0,26
	anethole	Tr
26.094	acetate bornyle	0,31
26.460	formiate geranyle	0,11
	carvacrol	Tr
28.733	acetate terpenyle	0,20
	eugenol	Tr
29.900	acetate geranyle	7,53
	methyl eugenol	Tr
30.860	daucene	1,38
32.123	alpha bergamotene	1,14
32.562	beta caryophyllene	5,80
32.986	trans beta bergamotene	1,83
33.783	trans beta farnesene	2,82
34.021	methylisoeugenol	0,28
34.417	germacrene D	0,43
35.089	beta selinene	1,23
35.439	alpha selinene	0,40
35.559	gamma selinene	0,43
35.741	beta bisabolene	4,55
36.234	beta sesquiphellandrene	0,37
36.902	alpha bisabolene	1,03
38.588	epoxycaryophyllene	3,37
39.458	carotol	29,32
40.448	daucol	0,71
40.822	asarone	0,23
41.102	apiole	0,19
	total	89,56

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