

Sample & Analysis Information

Sample Information

Sample Name: Caraway Oil, Egypt

Botanical Name: Carum carvi

Lot Number: EGX15-XK

Production Method: Steam distilled

Sample Type: EO - Single

Country of Origin: Egypt

Analysis Date: 7/3/2024

Date of Distillation: July 2024

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra

Injection Type: Split

Split Ratio: 24.4

Column Type: ZB-5

Injection Volume: 0.1 μ L

Temperature Program: 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

+78.40

1.48510

0.90205

Ret. Time	Component	Ret. Idx.	Conc. %	
11.884	alpha-Thujene	924	0.01%	
12.288	alpha-Pinene	931	0.15%	
14.449	Sabinene	971	0.09%	
14.747	beta-Pinene	976	0.04%	
15.384	Myrcene	988	0.52%	
16.231	Octanal	1003	0.04%	
16.438	alpha-Phellandrene	1006	0%	
16.587	delta-3-Carene	1008	0.03%	
17.587	para-Cymene	1023	0.11%	
17.985	Limonene	1030	52.26%	IFRA
18.035	beta-Phellandrene	1030	0.09%	
18.962	trans-beta-Ocimene	1045	0.02%	
19.743	gamma-Terpinene	1056	0.16%	
20.546	Octanol	1069	0.01%	
21.553	Unidentified	1084	0%	
22.493	Linalool	1099	0.05%	IFRA
23.991	trans-para-Mentha-2,8-dienol	1120	0.04%	
24.747	cis-Limonene oxide	1131	0.07%	
24.990	Unidentified	1135	0.03%	
25.045	trans-Limonene oxide	1136	0.05%	
26.897	Unidentified	1163	0.02%	
28.525	trans-Isocarveol	1186	0.01%	
29.051	alpha-Terpineol	1194	0.04%	
29.243	cis-Dihydrocarvone	1197	0.64%	
29.357	Unidentified	1198	0.05%	
29.671	trans-Dihydrocarvone	1203	0.15%	
30.600	Unidentified	1217	0.02%	
30.709	trans-Carveol	1218	0.09%	
31.568	neoiso-Dihydrocarveol	1231	0.03%	
31.674	cis-Carveol	1232	0.04%	
32.560	Carvone	1245	44.73%	IFRA
32.763	Carvotanacetone	1248	0.18%	
33.234	Carvenone	1255	0.01%	
34.530	Perillaldehyde	1274	0.06%	IFRA
36.544	Unidentified isomer I	1304	0.03%	
37.416	Unidentified isomer I	1317	0.02%	
38.163	Unidentified	1329	0.01%	
39.103	Unidentified	1343	0.01%	
40.009	Unidentified	1357	0.03%	
40.949	Unidentified	1371	0.01%	

Ret. Time	Component	Ret. Idx.	Conc. %
41.115	Unidentified	1374	0.02%
43.941	beta-Caryophyllene	1418	0.01%
46.058	trans-beta-Farnesene	1451	0.01%
53.808	Caryophyllene oxide	1580	0.01%

Total Identified Compounds **99.75 %**

