

Sample Information

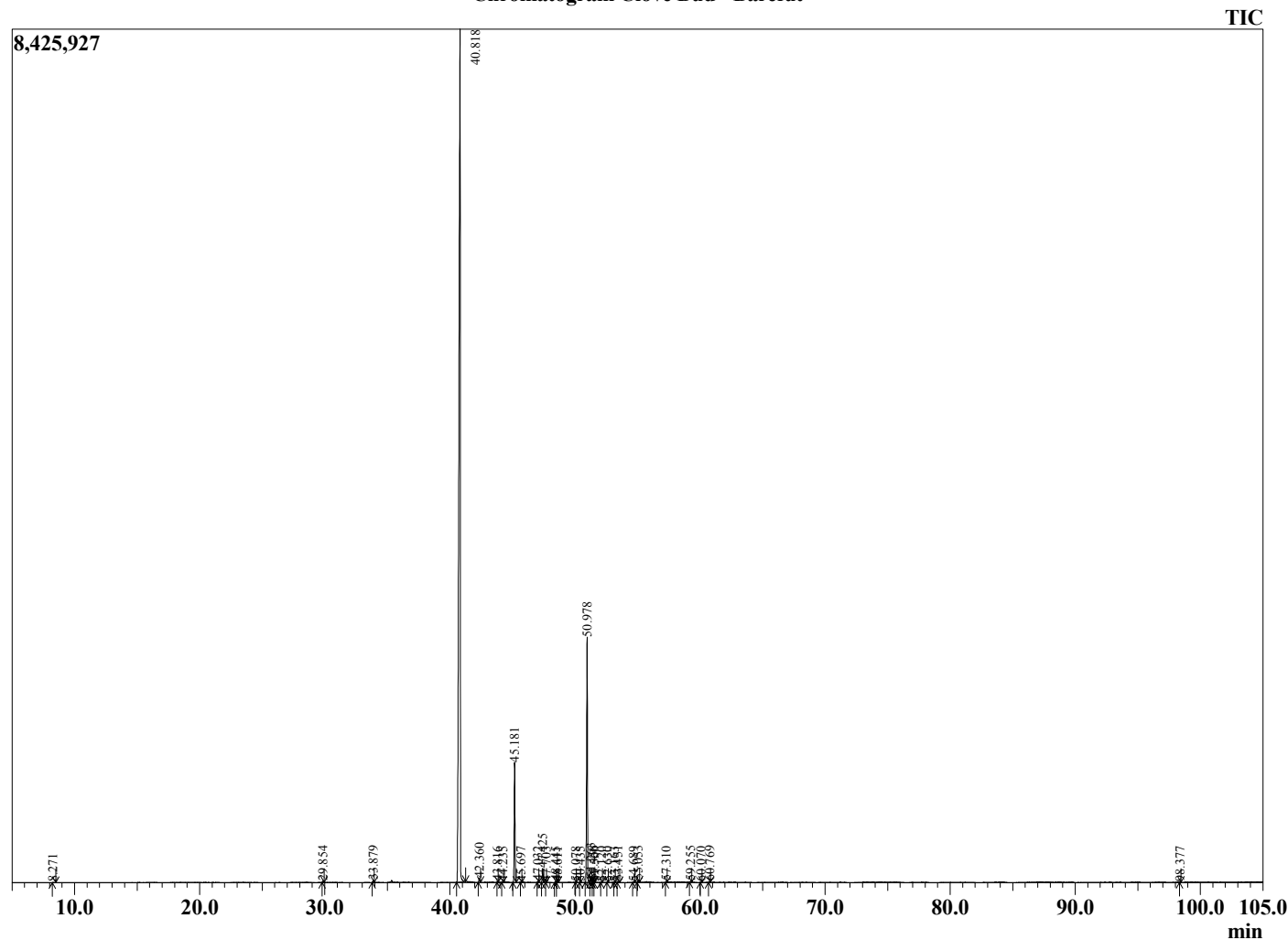
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 3/25/20 9:37:45 PM  
 Sample Type : Essential Oil  
 Sample Name : Clove Bud - Barefut  
 Sample ID : 0111  
 Injection Volume : 0.10  
 Instrument ID: GC-3



Peak Report TIC

R.Time	Name	Area%
4.247	3-Methylbutanal	0.01
4.360	2-Methylbutanal	0.00
8.271	Furfural	0.03
29.854	Methyl salicylate	0.06
33.879	Chavicol	0.08
40.818	Eugenol	77.90
42.360	alpha-Copaene	0.23
43.816	Methyleugenol	0.04
44.235	cis-beta-Caryophyllene	0.03
45.181	beta-Caryophyllene	6.20
45.697	Unidentified	0.03
47.032	Humulen-(v1)	0.03
47.425	alpha-Humulene	0.73
47.703	Unidentified	0.01
48.445	10-beta-H-Cadina-1(6),4-diene	0.05
48.611	trans-Cadina-1(6),4-diene	0.02
50.078	alpha-Muurolene	0.01
50.435	Unidentified	0.01
50.978	Eugenyl acetate	13.70
51.263	delta-Cadinene	0.23
51.458	trans-Calamenene	0.10
51.560	Zonarene	0.02
52.120	trans-Cadine-1,4-diene	0.03
52.630	Unidentified	0.01
53.163	Unidentified	0.02
53.451	Unidentified	0.07
54.689	Caryophyllene alcohol	0.04
55.053	Caryophyllene oxide	0.11
57.310	Unidentified	0.04
59.255	14-Hydroxy-9epi-Z-Caryophyllene	0.06
60.070	14-Hydroxy-9epi-E-Caryophyllene	0.02
60.769	Unidentified	0.05
98.377	Eugenol dimer	0.02
		100.00

Chromatogram Clove Bud - Barefut



Comments:

The analysis of this Clove Bud batch sample meets the expected chemical profile for authentic essential oil of *Eugenia caryophyllata*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.