

Sample Information

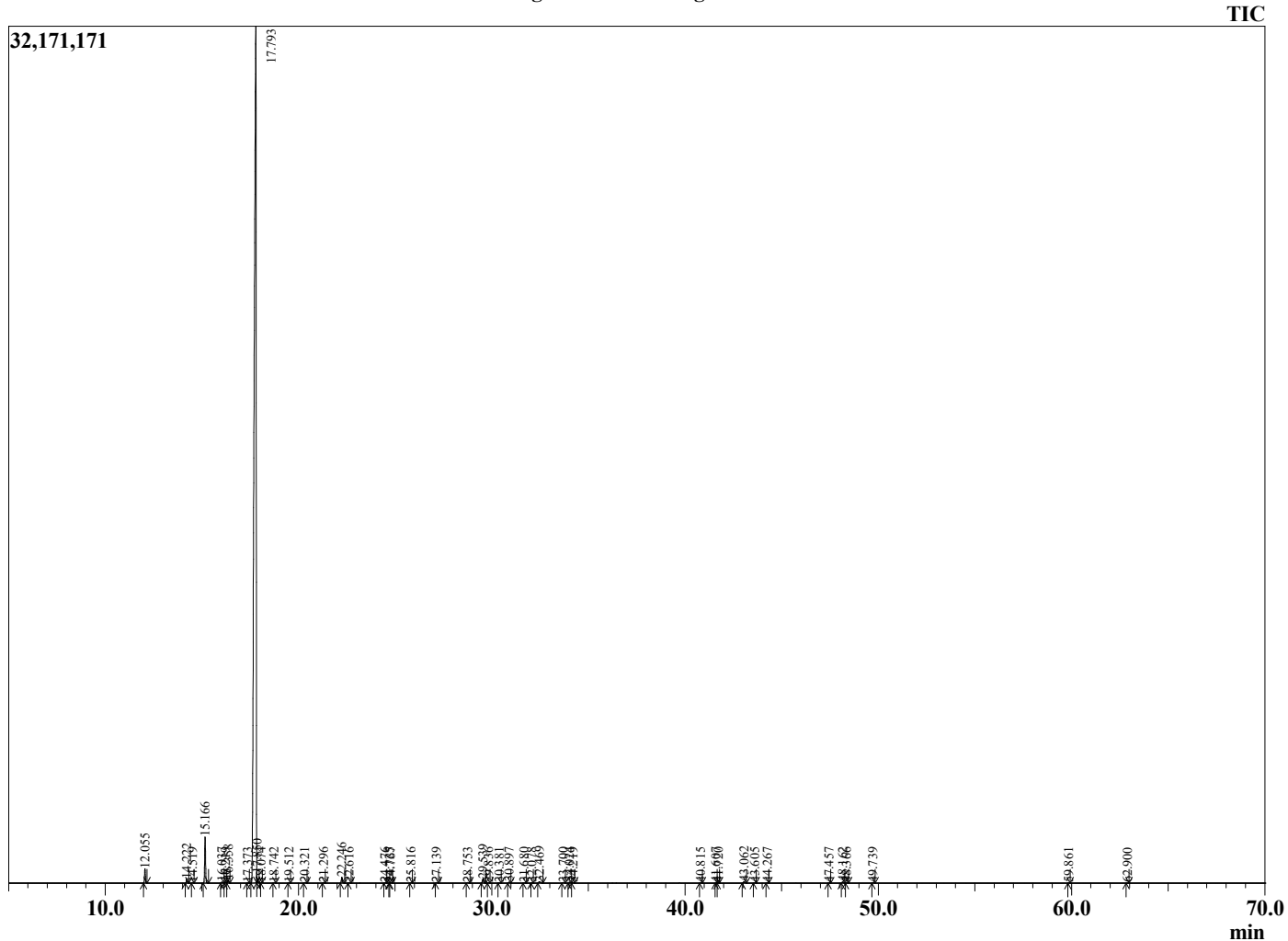
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 1/26/2022 8:31:02 PM  
 Sample Type : Essential Oil  
 Sample Name : Sweet Orange Oil - Barefut  
 Sample ID : 0111  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
12.055	alpha-Pinene	0.65
14.222	Sabinene	0.22
14.519	beta-Pinene	0.03
15.166	Myrcene	2.24
16.037	Octanal	0.06
16.219	alpha-Phellandrene	0.04
16.358	delta-3-Carene	0.16
17.373	para-Cymene	0.01
17.793	Limonene	94.99
17.850	beta-Phellandrene	0.16
18.074	cis-beta-Ocimene	0.00
18.742	trans-beta-Ocimene	0.02
19.512	gamma-Terpinene	0.01
20.321	1-Octanol	0.03
21.296	Terpinolene	0.02
22.246	Linalool	0.31
22.616	Nonanal	0.02
24.476	cis-Limonene oxide	0.02
24.725	trans-para-Mentha-2,8-dienol	0.00
24.767	trans-Limonene oxide	0.02
25.816	Citronellal	0.03
27.139	1-Nonanol	0.03
28.753	alpha-Terpineol	0.04
29.539	Decanal	0.24
29.836	Octyl acetate	0.01
30.381	trans-Carveol	0.01
30.897	Citronellol	0.05
31.680	Neral	0.02
32.078	Carvone	0.01
32.469	Linalyl acetate + Geraniol	0.11
33.700	Geranial	0.03
34.024	1-Decanol	0.05
34.219	Perillaldehyde	0.01
40.815	alpha-Copaene	0.02
41.607	beta-Cubebene	0.01
41.720	beta-Elemene	0.01
43.062	Dodecanal	0.09
43.605	trans-beta-Caryophyllene	0.02
44.267	beta-Copaene	0.03
47.457	Germacrene D	0.01
48.162	Valencene	0.07
48.366	beta-Selinene	0.01
49.739	delta-Cadinene	0.02
59.861	beta-Sinensal	0.01
62.900	alpha-Sinensal	0.01
		100.00

Chromatogram Sweet Orange Oil - Barefut



Comments:

The analysis of this Sweet Orange batch sample meets the expected chemical profile for authentic essential oil of *Citrus sinensis*. 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.