

Supplementary Information

Evaluation of Glycerol Profiles in Sugarcane Spirits (*Cachaças*)

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Table S1. Average concentration^a of glycerol, fatty acids (mg L⁻¹) and the molar ratio between fatty acids and glycerol in the forty eight samples of sugarcane spirits (*cacheças*)

Sample	Storage time	Type of cask	Glycerol ^b	Decanoic acid ^c	Dodecanoic acid ^d	Tetradecanoic acid ^e	Hexadecanoic acid ^f	Molar ratio: acids/glycerol
1	1 year	Oliveira (<i>Olea europaea</i> L.)	7.9	3.7	0.76	0.51	0.90	0.36
2	2 years	Oak (<i>Quercus</i>)	14	2.9	1.7	0.73	0.81	0.21
3	6 months	Stainless steel	0.98	3.3	2.8	0.35	1.0	3.65
4	2 years	Oak (<i>Quercus</i>)	33	1.2	3.5	2.0	2.0	0.11
5	8 months	Oak (<i>Quercus</i>), amendoim (<i>Pterogynenitens</i>) and jequitibá (<i>Carinianaestrellensis</i>)	2.5	0.74	0.28	0.62	1.9	0.59
6	4 years	Oak (<i>Quercus</i>)	53	5.0	1.5	1.9	1.8	0.09
7	3 years	Oak (<i>Quercus</i>)	1.5	4.2	0.78	0.15	0.95	1.98
8	8 months	Stainless steel	2.8	0.46	0.24	1.5	0.88	0.46
9	1.5 year	Oak (<i>Quercus</i>)	37	5.8	2.2	2.7	1.7	0.16
10	1 year	Jequitibá (<i>Carinianaestrellensis</i>), Grapia (<i>Apuleialeiocarpa</i>)	0.79	2.1	0.59	0.02	0.39	1.93
11	1 year	Grapia (<i>Apuleialeiocarpa</i>)	< LOQ	0.66	0.44	0.07	0.44	–
12	2 years	Oak (<i>Quercus</i>)	24	9.6	5.5	2.6	2.4	0.40
13	6 months	Freijó (<i>Cordia goeldiana</i>)	0.77	< LOQ	0.64	0.46	3.0	2.04
14	4 years	Oak (<i>Quercus</i>)	38	4.5	4.0	6.2	5.9	0.23
15	–	Stainless steel	2.4	0.44	1.1	0.35	2.3	0.70
16	2 years	Oak (<i>Quercus</i>)	22	< LOQ	3.4	3.1	1.2	0.15
17	8 months	Amendoim (<i>Pterogynenitens</i>)	1.8	< LOQ	0.20	0.24	2.1	0.52
18	4 years	Oak (<i>Quercus</i>)	13	19	4.8	3.1	5.2	1.17
19	10 years	Oak (<i>Quercus</i>)	34	19	11	15	6.3	0.68
20	2 years	Oak (<i>Quercus</i>)	2.7	5.3	3.4	0.30	1.7	1.89
21	2 months	Stainless steel	< LOD	< LOQ	0.09	0.31	2.1	–
22	2 years	Oak (<i>Quercus</i>)	20	4.9	4.5	5.0	2.8	0.39
23	2 years	Oak (<i>Quercus</i>), Ipê (<i>Tabebuia</i> spp.)	66	4.6	5.2	< LOQ	3.9	0.09
24	2 years	Oak (<i>Quercus</i>)	12	8.7	2.7	3.1	1.8	0.65
25	6 months	Oak (<i>Quercus</i>)	2.8	2.9	2.0	0.45	0.69	1.03

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Table S1. continuation

Sample	Storage time	Type of cask	Glycerol ^b	Decanoic acid ^c	Dodecanoic acid ^d	Tetradecanoic acid ^e	Hexadecanoic acid ^f	Molar ratio: acids/glycerol
26	2 years	Oak (<i>Quercus</i>)	12	5.2	2.0	1.9	2.3	0.44
29	3 years	Stainless steel	< LOQ	3.7	0.93	0.02	0.12	–
30	3 years	Oak (<i>Quercus</i>)	10	2.7	2.8	1.2	0.87	0.36
31	6 months	Oak (<i>Quercus</i>)	5.3	< LOQ	1.2	0.80	1.2	0.25
32	2 years	Oak (<i>Quercus</i>)	14	4.2	2.7	1.2	3.0	0.36
33	3 years	Oak (<i>Quercus</i>)	2.3	0.80	0.92	0.31	2.0	0.73
34	4 years	Oak (<i>Quercus</i>)	4.3	6.8	4.4	1.7	3.5	1.77
35	2 years	Louro canela (<i>Lauraceae</i>)	1.3	< LOQ	0.81	0.26	1.1	0.68
36	2 years	Oak (<i>Quercus</i>)	12	13	4.3	2.6	4.1	0.95
37	2 years	Oak (<i>Quercus</i>)	< LOQ	1.9	2.0	0.37	3.2	–
38	3 months	Stainless steel	< LOD	0.36	0.17	0.04	0.62	–
39	2 years	Oak (<i>Quercus</i>)	27	2.0	2.3	3.0	3.1	0.16
40	1.5 year	Oak (<i>Quercus</i>)	25	0.86	13	22	5.4	0.70
41	–	Jequitibá (<i>Carinianaestrellensis</i>)	4.2	0.53	0.35	1.2	0.67	0.27
42	1.5 year	Oak (<i>Quercus</i>)	25	6.7	3.2	2.6	1.4	0.27
43	1.0 year	Oak (<i>Quercus</i>)	31	2.0	1.2	0.37	2.0	0.08
44	2 years	Oak (<i>Quercus</i>)	7.3	0.57	4.2	9.83	1.7	0.93
46	3 months	Jequitibá (<i>Carinianaestrellensis</i>)	< LOD	< LOQ	0.22	0.20	0.44	–
47	3 months	Stainless steel	3.4	< LOQ	0.27	0.18	5.4	0.63
48	2 years	Oak (<i>Quercus</i>)	4.3	< LOQ	2.3	0.31	1.4	0.38

^aAll data are an average of three independent determinations whose agreement is better than 95%; ^bglycerol: MW = 92.09 g mol⁻¹; LOD = 0.25 mg L⁻¹; LOQ = 0.74 mg L⁻¹; ^cdecanoic acid: MW = 172.26 g mol⁻¹; LOD = 225 µg L⁻¹; LOQ = 750 µg L⁻¹; ^ddodecanoic acid: MW = 200.32 g mol⁻¹; LOD = 45 µg L⁻¹; LOQ = 150 µg L⁻¹; ^etetradecanoic acid: MW = 228.37 g mol⁻¹; LOD = 45 µg L⁻¹; LOQ = 150 µg L⁻¹; ^fhexadecanoic acid: MW = 256.42 g mol⁻¹; LOD = 45 µg L⁻¹; LOQ = 150 µg L⁻¹.