



## QUALITY CONTROL MATERIAL STATEMENT OF MEASUREMENT

<b>Catalogue code:</b>	PT-FC-778-QC
<b>This Quality Control material is a Surplus sample from Proficiency Testing round:</b>	FC278
<b>Test:</b>	Fat Quality
<b>Matrix:</b>	Cold pressed Rapeseed Oil
<b>Weight/Volume:</b>	150g
<b>Storage on receipt:</b>	Refrigerated 2-8°C
<b>This statement of measurement is applicable until:</b>	17 December 2019

### Sample Instructions

1. All test materials are supplied in a ready-to-use format.
2. Test materials may have settled during transit. Please ensure test materials are thoroughly mixed prior to any sub-sampling or any analysis is performed.

Analyte	Assigned value	Units	Satisfactory range $ z  \leq 2$	Number of data points
Water	0.53	g/kg	0.29 to 0.77	22
Free fatty acids (acidity)	0.17	% oleic acid	0.10 to 0.24	37
Saponification value	189.4	KOH mg/g	179.4 to 199.4	14
Iodine value	113.5	% iodine absorbed	107.8 to 119.1	19
Peroxide value	2.69	mEq O <sub>2</sub> /kg	1.61 to 3.77	36
12:0 Lauric acid	0.01	% total fatty acids	0.00 to 0.03	20
14:0 Myristic acid	0.05	% total fatty acids	0.02 to 0.08	22
16:0 Palmitic acid	4.64	% total fatty acids	4.43 to 4.85	25
16:1 Palmitoleic acid (cis & trans)	0.20	% total fatty acids	0.17 to 0.23	20
17:0 Heptadecanoic acid	0.05	% total fatty acids	0.03 to 0.07	18
18:0 Stearic acid	1.43	% total fatty acids	1.37 to 1.55	25
18:1 Oleic acid (cis) n-9	57.55	% total fatty acids	51.79 to 63.31	21
18:1 Oleic acid (total cis & trans)	60.02	% total fatty acids	54.01 to 66.02	7



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Sum of oleic 18:1 (cis) n-9 & vaccenic 18:1 (cis) n-11	60.40	% total fatty acids	54.36 to 66.44	5
18:2 Linoleic acid (n-6) cis & trans	19.55	% total fatty acids	17.6 to 21.51	23
18:3 Linolenic acid (n-3) cis & trans	9.39	% total fatty acids	9.03 to 9.75	23
20:0 Eicosanoic acid	0.52	% total fatty acids	0.46 to 0.58	23
22:0 Behemic acid	0.30	% total fatty acids	0.27 to 0.33	22
22:1 Methyl Erucate	1.42	% total fatty acids	1.36 to 1.48	15
Total trans fatty acids (sum of all)	0.06	% oleic acid	0.03 to 0.09	13

### Notes

Fatty acid composition - as % total fatty acids determined  
Free fatty acids – as % oleic acid

### **Value/ Acceptance Limits**

- The indicative assigned value is not a certified reference value. It is suitable for use by laboratories as a fit-for-purpose internal quality control measure.
- The assigned value has been derived from the consensus of laboratories taking part in this proficiency test, using a variety of methods.
- The PT satisfactory range is the concentration range within the limits of  $\pm 2$  z-scores.
- In order to ensure the provision of reliable Quality Control materials, Proficiency Testing samples that are eligible for QC are decided on a case by case basis. Each individual analyte is assessed and only those which meet the performance criteria are displayed on the Statement of Measurement.

### **Homogeneity/Stability**

- All QC materials are considered sufficiently homogeneous for use, where measured the calculated sampling variance is smaller than a critical value calculated according to the procedure described in ISO 13528 (2015).
- Stability of the QC material has been established for the scope of the proficiency test from previous experience, expert advice and published literature.
- LGC advises that the QC material is used within the expiry date.

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### Safety Information

- All test materials are supplied on the understanding that the purchaser has suitably competent and qualified personnel to handle them safely.
- Test materials must only be opened in the laboratory by qualified personnel.
- LGC Ltd. cannot accept responsibility for any event resulting from the mishandling of reference materials.
- If on receipt and testing of the QC material you find any damage to the package, labelling or any other exceptional circumstances, please contact us immediately. Please do not open the sample, but store at the recommended temperature until advice has been provided.