



Scheme Description

Food Chemistry (QFCS) Proficiency Testing Scheme

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Issue No: 54
Issued: September 2026



29821

RECORD OF ISSUE STATUS AND MODIFICATIONS

Issue	Issue Date	Details	Authorised by
42	Oct 2023	Amendment of the analyte name and DPs for 857 and 868 Specified the range for 799, 808, 809, 851, 852, 853, 854 Specified food product range for sample 900	S Xystouris
43	November 2023	Samples 879 and 861 increase to 300g. Brix added to sample 894. 861 bulk density, bulk index and tapped density added. 870. untapped density removed.	L.Fielding
44	March 2024	Specified a range for 780 and 796. Samples 781, 851, 852 and soya in 853 now accredited.	A Collins
45	March 2024	Added glufosinate in sample 837	S. Xystouris
46	Sept 2024	Cosmetic changes to layout for 778 Changes to the format of 825 Addition of Nickel in 780, 784 Ranges specified for 890 and 803 Changed units, DPs and format 901 Changed the name of sample 870 and specified the matrix (paprika) Samples 795, 860, 887, 888, 873, 847, 859 removed. 779 – blank removed. 781, samples size adjusted. Clarified units for samples 771, 776, 782, 806, 830, 864. Sample 889 amended (sample name and analytes) Specified almond milk in the sample name, for sample 853 SDPA updated for TPC in 796 SDPA updated to 25% for samples 779, 794, 804, 845, 867 & 890 New samples 902 – 912 Specified SDPA for 805 to 20% of the AV Added N-acetyl-L-methionine in 823 Added Volatile sulphur compound content in 861 Added vanillic acid, para Hydroxy Benzoic acid, para Hydroxy Benzaldehyde in 892, amended the units from mg/kg to mg/g and the DPs from 1 to 3 806: amended 'cis Docosapentaenoic (DPA)' to 'Total Docosapentaenoic (DPA)'.	R. Connolly S. Xystouris
47	Oct 2024	Corrected a statement for sample 912 (removed the reference to dyes)	S. Xystouris
48	April 2025	Changes to ranges for 805 (specified range and SDPA), 857 (range) as a result of flexible scope accreditation Sample 805 now accredited Sample 878, 815, 808 and 822 now accredited under flexible scope Specified format for 819 Change of sample name for 855 and 882S	S Xystouris
49	July 2025	Change of name for sample 907 to specify oat Addition of gluten in 853 Dietary fibre clarified in 770, 772, 775, 776, 793, 811, 813, 816, 824, 832, 834, 835, 877, 884 Added Ca , P in 770	S Xystouris R. Connolly

		Added perchlorate and chlorate in 777 Removed 792, 833, 864 Removed glufoosinate from 837 and added to Appendix B Added Sudan I, Sudan III in 803 Added A & B to sample 848 Added Appendix F for PFAS and referenced in sample 910. Changed analytes for 910 Added extra analytes in 899 – change of name to add lactose Added “food” colours in 912 Changed name and matrix for 911 Changed name and material for 912 Added 778-RO and updated the Fatty acid composition table Added 10 new samples Updated methods for carbohydrate testing 804 added to flexible scope 780 added to fixed scope	
50	Sept 2025	Sample 855 now accredited Analyte 10:0 Capric acid added and 10:0 Caproic acid removed for 778 Added Sodium to 811 New method added to all sodium analytes	A Collins R. Connolly
51	Feb 2026	Sample 857,868,866 now accredited under flexible scope DPs for density & vanillin in 850 amended 819, Sulphate: DPs reduced to 0. 827: Volume provided reduced to 10g 885: Unit changed to mg(TiO₂)/kg and DP reduced to 2	R. Connolly S. Xystouris
52	Mar 2026	New samples added for cereulide, 923 & 924 New analyte added to 902	S. Xystouris R. Connolly
53	Apr 2026	Pesticide specification according to EU statement added Sample 819 and 897 added under flexible scope Updated method list for all allergen samples and added appendices G & H Removed quantitative reporting for celery from 918 SDPA for pH in 812 updated to 0.1 New UKAS logo added	S. Xystouris A. Collins R. Connolly
54	July 2026	Specifications added for sample 900 Updated methods for sample 889 Updated description of oat milk to oat based drink for 907 Sample 882 and 900 now accredited under flexible scope Added total fat in 908 Improved description for 787, 788, 791, 798, 810, 815, 846, 849, 910, 920 Added new analytes and new matrix (maize oil) for sample 778. Removed sample 821 Added new samples 925 - 930 Moved samples 849, 806 to Pharmedure under Dietary supplement as samples 36 and 37	S. Xystouris R. Connolly A Collins

Notes: Where this document has been translated, the English version shall remain the definitive version.

SCHEME INFORMATION

Scheme Aims and Organisation

The primary aim of the Food Chemistry Proficiency Testing Scheme (QFCS) is to enable laboratories performing the analysis of food products to monitor their performance and compare it with that of their peers. QFCS also aims to provide information to participants on technical issues and methodologies relating to the chemical examination of foods.

The QFCS scheme year operates from January to December. Further information about QFCS, including test material availability, round despatch dates and reporting deadlines, are available on the current QFCS application form

Test Materials

Details of test materials available in QFCS are given in the 'Samples Available' section. The test parameters are continually reviewed to ensure they meet the needs of current laboratory testing and regulatory requirements.

Test material batches are tested for homogeneity for at least one test parameter where deemed appropriate. Details of homogeneity tests performed and results are given in the QFCS Scheme Reports.

Some aspects of the scheme, such as test material production, homogeneity testing and stability assessment, can from time to time be subcontracted. When subcontracting occurs, it is placed with a competent subcontractor and LGC is responsible for this work. The planning of the scheme, the evaluation of performance and the authorisation of the final report will never be subcontracted.

Statistical Analysis

Information on the statistics used in QFCS can be found in the General Protocol and in the Scheme Report. Methods for determining assigned values and the values for SDPA used for individual samples are given in the 'Samples Available' section.

Methods

Methods are listed PORTAL. Please select the most appropriate method from the list. If none of the methods are appropriate, then please report your method as 'Other' and record a brief description in the Comments Section in PORTAL.

Results and Reports

QFCS results are returned through our electronic reporting software, PORTAL, full instructions for which are provided by email.

QFCS reports will be available on the website within 10 working days of round closure. Participants will be emailed a link to the report when it is available.

DESCRIPTION OF ABBREVIATIONS USED

Assigned Value (AV)

The assigned value may be derived in the following ways:

- From the robust mean (median) of participant results (RMean). This is the median of participant results after the removal of test results that are inappropriate for statistical evaluation, e.g. miscalculations, transpositions and other gross errors. Generally, the assigned value will be set using results from all methods, unless the measurement is considered method-dependant, in which case the assigned value will be set by method and indicated in the report tables. For some analytes, where there is a recognised reference method for that type of measurement, this may be used as the assigned value for a particular analyte i.e. it would be applied to results obtained by any method.

Traceability: Assigned values which are derived from the participant results, or a sub-set of the results are not traceable to an international measurement standard. The uncertainty of assigned values derived in this way is estimated from the participant results, according to ISO 13528.

- From a formulation value (Form). This denotes the use of an assigned value derived from sample preparation details, where known and exact quantities of analyte have been used to prepare the sample.

Traceability: Assigned values calculated from the formulation of the test sample are traceable, via an unbroken metrological traceability chain, to an international measurement standard. The measurement uncertainty of the assigned value is calculated using the contributions from each calibration in the traceability chain.

- From a qualitative formulation (Qual Form). This applies to qualitative tests where the assigned value is simply based on the presence/absence of the analyte in the test material.

Traceability: Assigned values calculated from the qualitative formulation of the test sample are traceable to a certified reference standard or a microbiological reference strain.

- From expert labs (Expert). The assigned value for the analyte is provided by an 'expert' laboratory.

Traceability: Assigned values provided by an 'expert' laboratory may be traceable to an international measurement standard, according to the laboratory and the method used. The uncertainty of measurement for an assigned value produced in this way will be provided by the laboratory undertaking the analysis. Details of traceability and the associated uncertainty will be provided in the report for the scheme/round.

Range

This indicates the concentration range at which the analyte may be present in the test material.

SDPA

The SDPA represents the 'standard deviation for proficiency assessment' which is used to assess participant performance for the measurement of each analyte. This may be a fixed value (as stated), a percentage (%) of the assigned value or based on the robust standard deviation of the participant measurement results, either across all methods or by method depending on whether the measurement made is method dependent (see assigned value).

Units

This indicates the units used for the assessment of data and in which participants should report their results.

For some analytes in some schemes participants may have a choice of which units to report their results, however, the units stipulated in this scheme description are the default units to which any results reported using allowable alternative results will be converted to.

DP

This indicates the number of decimal places to which participants should report their measurement results.

SAMPLES AVAILABLE

Sample PT-FC-760 Supplied as

Analysis of preservatives
100ml liquid test material

Analyte	Method	Range	AV	SDPA	Units	DP
Sorbic acid	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
Benzoic acid	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
Sulfur dioxide	Distillation	All	Formulation	Robust SD	mg/L	1

Sample PT-FC-761 Supplied as

Analysis of sweeteners
100ml liquid test material

Analyte	Method	Range	AV	SDPA	Units	DP
Acesulfame K	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
Aspartame	HPLC	All	Formulation	10% of AV (min 5ppm)	mg/L	1
Saccharin	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
Sucralose	HPLC	All	Formulation	Robust SD	mg/L	1

Sample PT-FC-762 Supplied as

Analysis of food colours
100ml liquid test material

Analyte	Method	Range	AV	SDPA	Units	DP
CAS 2611-82-7 Ponceau 4R	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 3567-69-9 Carmoisine	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 2783-94-0 Sunset yellow	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 860-22-0 Indigo carmine***	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1

Sample PT-FC-763 Supplied as

Analysis of food colours
100ml liquid test material

Analyte	Method	Range	AV	SDPA	Units	DP
CAS 25956-17-6 Allura red	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 1934-21-0 Tartrazine	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 8004-92-0 Quinoline yellow	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1
CAS 3844-45-9 Brilliant blue	HPLC	All	Formulation	5% of AV (min 5ppm)	mg/L	1

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-770
Supplied as

Nutritional analysis of processed cereal based food
100g cereal based food

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	5% of AV	kcal or kJ/100g	0
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	%	2
Carbohydrate (total & available)	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	%	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	20% of AV (min 1%)	%	2
Total dietary fibre	AOAC 2017.16, AOAC 2022.01	All	Median	0.50	%	2
Dietary fibre	AOAC 985.29, AOAC 991.43	All	Median	0.50	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Salt	Determined from chloride Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Titration, Flame Photometry, Ion chromatography, NMR sensor	All	Median	0.05	%	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	%	2
Moisture	Drying at 87°C Drying at 100-105°C Drying at 130°C	All	Median	0.50	%	2
Phosphate	Spectrophotometer, ICP-OES, ICP-MS	All	Median	0.05	%PO ₄ or %P	2
Magnesium	ICP-OES, ICP-MS, AAS, IC, Colorimetry	All	Median	Robust SD	mg/100g	2
Potassium	ICP-OES, ICP-MS, AAS, IC, Colorimetry	All	Median	Robust SD	mg/100g	2
Zinc	ICP-OES, ICP-MS, AAS	All	Median	Robust SD	mg/kg	2
Calcium	ICP-OES, ICP-MS, AAS	All	Median	Robust SD	mg/100g	2
Phosphorus	ICP-OES, ICP-MS, AAS	All	Median	Robust SD	mg P /kg	2

Sample PT-FC-771
Supplied as

Vitamins & minerals in cereal-based food
200g cereal based food

Analyte	Method	Range	AV	SDPA	Units	DP
Vitamin A	HPLC	All	Median	Robust SD	µg/100g as retinol	1
Thiamine (<i>vitamin B1</i>)	HPLC	All	Median	25% of AV	mg/100g as thiamine mononitrate	2
Riboflavin (<i>vitamin B2</i>)	HPLC	All	Median	25% of AV	mg/100g as riboflavin	2
Niacin (<i>vitamin B3</i>)	HPLC	All	Median	Robust SD	mg/100g as nicotinamide	2
Pantothenic Acid (<i>vitamin B5</i>)	HPLC	All	Median	Robust SD	mg/100g as pantothenic acid	2
Vitamin B6	HPLC	All	Median	25% of AV	mg/100g as pyridoxine HCl	2
Folic Acid (<i>vitamin B9</i>)	HPLC	All	Median	20% of AV	µg/100g as folic acid	1
Vitamin B12	HPLC	All	Median	Robust SD	µg/100g as cyanocobalamin	2
Vitamin C	HPLC	All	Median	20% of AV	mg/100g as ascorbic acid	2
Vitamin D	HPLC	All	Median	Robust SD	µg/100g as sum of D2 & D3	1
Iron	ICP-OES, ICP-MS, AAS	All	Median	15% of AV	mg/100g	2

Sample PT-FC-772
Supplied as

Nutritional analysis of a 'pre-prepared' food product
200g 'pre-prepared' food product (e.g: potato, rice or pasta-based meal)

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	5% of AV	kcal or kJ/100g	0
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	20% of AV	% (g/100g)*	2
Mono-unsaturates	GC	All	Median	20% of AV	% (g/100g)*	2
Poly-unsaturates	GC	All	Median	20% of AV	% (g/100g)*	2
Total trans fatty acids	GC	All	Median	Robust SD	% (g/100g)*	2

*Results should be reported as % (g/100g) of the whole product.

Analyte	Method	Range	AV	SDPA	Units	DP
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	1.00	%	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	1.00	%	2
Dietary fibre	AOAC 985.29, AOAC 991.43	All	Median	0.50	%	2
Total Dietary fibre	AOAC 2017.16, AOAC 2022.01	All	Median	0.50	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Salt	Determined from chloride Determined from sodium	All	Median	0.05	% (as NaCl)	2
Sodium	Atomic absorption, Titration, Flame Photometry, Ion chromatography, NMR sensor	All	Median	0.05	%	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	%	2
Moisture	NIR (food analyser), Microwave, Oven drying, Heating to constant weight, Karl Fischer	All	Median	0.50	%	2
Phosphate	Spectrophotometer, ICP-OES, ICP-MS	All	Median	0.05	%PO ₄ or %P	2
Cholesterol	GC	All	Median	30% of AV	mg/100g	2

Sample PT-FC-774
Supplied as

Water activity analysis of food

50g cured meat, hard cheese, cereal, dried fruit and jam – see the current QFCS Application form for full details.

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3

Sample PT-FC-775
Supplied as

Nutritional analysis of wheat flour

100g flour

Analyte	Method	Range	AV	SDPA	Units	DP
Fat	Acid hydrolysis and Soxhlet NIR Soxhlet	All	Median	25% of AV	%	2
Protein	Dumas Kjeldahl NIR (food analyser)	All	Median	0.30	%	2

Analyte	Method	Range	AV	SDPA	Units	DP
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	Robust SD	%	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.20	%	2
Moisture	Drying at 100-105°C Drying at 130°C Drying at 87°C	All	Median	0.50	%	2
Calcium	AAS, Colorimetry, Flame photometry, ICP-MS, ICP-OES, Ion chromatography, Titration	All	Median	15% of AV	mg/100g	2
Iron	AAS, ICP-MS, ICP-OES	All	Median	20% of AV (min 0.2)	mg/100g	2

Sample PT-FC-776
Supplied as

Nutritional analysis of bread
100g bread

Analyte	Method	Range	AV	SDPA	Units	DP
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), NMR, Soxhlet	All	Median	Robust SD	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	0.50	%	2
Acidity	Various	All	Median	Robust SD	% acetic acid	2
Ash	Various	All	Median	0.20	%	2
Moisture	Heating to constant weight, Karl Fischer, Microwave, NIR (food analyser), Oven drying	All	Median	0.50	%	2
Sodium	Atomic absorption, Titration, Flame photometry, Ion chromatography, NMR sensor	All	Median	10% of AV (min 0.25)	%	2
Chloride	Chloride analyser, Ion chromatography, Titration	All	Median	0.15	%	2
Calcium	AAS, colorimetry, flame photometry, ICP-MS, ICP-OES, Ion chromatography, Titration	All	Median	15% of AV	mg/100g	2
Iron	AAS, ICP-MS, ICP-OES	All	Median	20% of AV (min 0.25)	mg/100g	2

Analyte	Method	Range	AV	SDPA	Units	DP
Thiamine (vitamin B1)	HPLC	All	Median	Robust SD	mg/100g as thiamine mononitrate	2
Riboflavin (vitamin B2)	HPLC	All	Median	Robust SD	mg/100g as riboflavin	2
Niacin (vitamin B3)	HPLC	All	Median	Robust SD	mg/100g as nicotinamide	2
pH	pH meter	All	Median	0.10	-	2

Sample PT-FC-777***

Supplied as

Pesticides analysis of dried tea including nicotine

50g dried tea containing up to 6 quantifiable pesticides (see Appendix C)
50g blank dried tea matrix**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Nicotine	QuEChERS LC-MS/MS, Other (please specify)	All	Median	25% of AV	µg/kg	1
Perchlorate	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Chlorate	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

**A blank matrix is provided for laboratories that require a spiked quality control material to be run alongside samples being assessed. Results are not required to be returned for the blank matrix provided.

***Currently not included in LGC's UKAS Scope of Accreditation

Participants will be required to screen the sample provided and report the presence of any pesticides found above their routine reporting limits. Each pesticide detected in the sample should also be quantified.

Sample PT-FC-778

Supplied as

Edible Oil & Fat analysis

1 x 150g of edible oil or fat

Analyte	Method	Range	AV	SDPA	Units	DP
Water	Karl Fisher, Oven drying, Vacuum oven, Distillation	-	Median	Robust SD	g/kg	2
Free fatty acids (acidity)	Titration	-	Median	20% of AV (min 0.025)	% oleic acid	2
Saponification value	Titration	-	Median	5.0	KOH mg/g	1
Unsaponifiable matter	ISO 3596, ISO 18609, IS 548:1964, AOAC 933.08	-	Median	Robust SD	g/kg	2
Anisidine value	Various	-	Median	Robust SD	AV	2

Analyte	Method	Range	AV	SDPA	Units	DP
Colour	Spectrophotometry	-	Median	Robust SD	Hazen mg pt/L	1
Colour	Lovibond, path length 1" Lovibond, path length 5.25" Lovibond, path length 5.5"	-	Median	Robust SD	Lovibond	1
Iodine value	Titration	-	Median	2.5% of AV	% Iodine absorbed	1
Peroxide value	Titration	-	Median	20% of AV (min 0.025)	mEq O ₂ /kg sample	2
α-tocopherol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
α-tocotrienol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
β-tocopherol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
β-tocotrienol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
γ-tocopherol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
γ-tocotrienol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
δ-tocopherol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
δ-tocotrienol	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
Total tocols	ISO 9936:2016	All	Median	Robust SD	mg/kg	3
Mean vitamin E activity	ISO 9936:2016	All	Median	Robust SD	α-TE mg/kg	2

Fatty acid composition*						
Analyte	Method	Range	AV	SDPA	Units	DP
8:0 Caprylic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
10:0 Capric acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
12:0 Lauric acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
14:0 Myristic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
14:1 n-5 Myristoleic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
15:0 Pentadecanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
16:0 Palmitic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
16:1 Palmitoleic acid (cis & trans)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
17:0 Heptadecanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2

18:0 Stearic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:1 Oleic acid (cis) n-9	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:1 Oleic acid (total cis and trans)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
Sum of oleic 18:1 cis n-9 & vaccenic cis 18:1 n-11	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:2 Linoleic acid (n-6) cis & trans	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:3 Linolenic acid (n-3) cis & trans	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:0 Arachidic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:1 Eicosenoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
22:0 Behemic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
22:1 Erucic acid (cis-13-docosenoic acid)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
24:0 Tetracosanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
Total trans fatty acids (sum of all)	-	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2

*Values below 0.5% are to be considered as below the limit of detection and performance scores will not be provided.

Fatty acids available (per sample type)

Fatty acids	Soybean oil (SBO)	Coconut oil (CO)	Sunflower oil (SO)	Palm oil (PO)	Rapeseed oil (RO)	Maize oil (MO)
8:0 Caprylic acid	-	Yes	-	Yes	-	-
10:0 Capric acid	-	Yes	-	Yes	-	-
12:0 Lauric acid	Yes	Yes	Yes	Yes	-	-
14:0 Myristic acid	Yes	Yes	Yes	Yes	Yes	-
14:1 n-5 Myristoleic acid	-	Yes	-	Yes	Yes	-
15:0 Pentadecanoic acid	-	Yes	-	Yes	-	-
16:0 Palmitic acid	Yes	Yes	Yes	Yes	Yes	Yes
16:1 Palmitoleic acid (cis & trans)	Yes	-	-	Yes	Yes	Yes
17:0 Heptadecanoic acid	-	-	-	Yes	-	-
18:0 Stearic acid	Yes	Yes	Yes	Yes	Yes	Yes
18:1 Oleic acid (cis) n-9	Yes	Yes	Yes	Yes	Yes	Yes

18:1 Oleic acid (total cis and trans)	Yes	Yes	Yes	Yes	Yes	Yes
Sum of oleic 18:1 cis n-9 & vaccenic cis 18:1 n-11	Yes	Yes	Yes	Yes	Yes	Yes
18:2 Linoleic acid (n-6) cis & trans	Yes	Yes	Yes	Yes	Yes	Yes
18:3 Linolenic acid (n-3) cis & trans	Yes	-	Yes	Yes	Yes	Yes
20:0 Arachidic acid	Yes	-	Yes	Yes	Yes	Yes
20:1 Eicosenoic acid	Yes	-	Yes	Yes	Yes	-
22:0 Behemic acid	Yes	-	Yes	Yes	Yes	Yes
22:1 Erucic acid (cis-13-docosenoic acid)	Yes	-	Yes	-	Yes	-
24:0 Tetracosanoic acid	Yes	-	Yes	-	Yes	-
Total trans fatty acids (sum of all)	Yes	Yes	Yes	Yes	-	-

The fatty acid composition is based on CODEX Alimentarius CXS 210-1999

Maize oil (MO) will include tocopherols and tocotrienols.

Sample PT-FC-779 **Aflatoxin analysis of nuts**
Supplied as 50g powdered nut matrix

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Total aflatoxins	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-780 **Elements analysis in dried tea including nickel**
Supplied as 50g dried green tea

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2
Cadmium	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2
Mercury	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2
Lead	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2
Selenium	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2
Nickel***	AAS, ICP-MS, ICP-OES	0.1 – 2	Median	15% of AV	mg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-781
Supplied as

Gluten in flour (allergen testing - low level gluten)
25g contaminated gluten free flour

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten (quantitative)	See Appendix G for possible methods	20 - 120	Median	Robust SD	mg/kg	1

Sample PT-FC-782
Supplied as

Nutritional analysis of mixed fat spread
100g mixed fat spread

Analyte	Method	Range	AV	SDPA	Units	DP
Total Fat	GC, Acid hydrolysis & Soxhlet, NIR (food analyser), Soxhlet, NMR, Werner Schmid, Mojonnier	All	Median	Robust SD	%	2
Saturates	GC	All	Median	20% of AV	g/100g*	2
Mono-unsaturates	GC	All	Median	20% of AV	g/100g*	2
Poly-unsaturates	GC	All	Median	20% of AV	g/100g*	2
Total trans fatty acids	GC	All	Median	Robust SD	g/100g*	2
Omega 3	GC, HPLC	-	Median	Robust SD	g/100g*	2
Omega 6	GC, HPLC	-	Median	Robust SD	g/100g*	2
Salt	Chloride analyser, Mohr, Potentiometric titration, Volhard	All	Median	0.05	%	2
Water	Food analyser, Hot plate drying, Karl Fischer, Over drying	All	Median	0.20	%	2
pH	pH meter	All	Median	0.10	-	2
Vitamin A	HPLC	-	Median	Robust SD	µg/100g as retinol	1
Vitamin D	HPLC	-	Median	Robust SD	µg/100g as sum of D2 & D3	1

*Results should be reported as % (g/100g) of the whole product.

Sample PT-FC-783
Supplied as

Nutritional analysis of tomato paste/puree
150g tomato paste/puree

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	All	Median	Robust SD	-	2
Brix	Densitometer, refractometer	All	Median	Robust SD	%	2
Total acidity	Titration	All	Median	Robust SD	% acetic acid	2
Total solids	Microwave, moisture analyser, oven drying, vacuum oven	All	Median	Robust SD	%	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	%	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Bostwick Viscosity***	Measured by Bostwick method 12.5 °Brix	All	Median	Robust SD	cm / 30 seconds	2

Sample PT-FC-784***
Supplied as

Elements analysis in cereal grain
50g cereal grain

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	2
Cadmium	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	2
Lead	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	2
Mercury	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	2
Nickel	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	2

Sample PT-FC-785***
Supplied as

Elements analysis in oil
50g edible oil

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Cadmium	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Lead	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Mercury	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-786***
Supplied as

Elements analysis in dried fruit
50g dried fruit

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Cadmium	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Lead	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2
Mercury	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	2

Sample PT-FC-787
Supplied as

Nitrate analysis in fresh vegetable
50g vegetable puree

Analyte	Method	Range	AV	SDPA	Units	DP
Nitrate	HPLC, Ion chromatography, Spectrophotometry	2000 - 7000	Median	Robust SD	mg/kg (as NaNO ₃)	0

Sample PT-FC-788
Supplied as

Acrylamide in potato crisps/chips
50g potato crisps/chips

Analyte	Method	Range	AV	SDPA	Units	DP
Acrylamide	LC-MS/MS, GC-MS	All	Median	15%	µg/kg	0

Sample PT-FC-789
Supplied as

Elements analysis in rice
10g rice

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
Total Inorganic arsenic ^{1***}	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
As (III)***	EN 16802:2016, HPLC-ICP-MS	All	Median	Robust SD	mg/kg	3
As (V)***	EN 16802:2016, HPLC-ICP-MS	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
Lead***	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3

¹Sum of As (III) and As (V)

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-790
Supplied as

Extra virgin olive oil analysis
2 x 200ml extra virgin olive oil,
1 x 50ml for insoluble impurities only

Analyte	Method	Range	AV	SDPA	Units	DP
Peroxide value	Titration	≤10 >10	Median	0.8 1.2	mEq O ₂ /kg	2
Free fatty acids (acidity)	Titration	<0.2 0.2-1 >1	Median	24% of AV 5% of AV 3% of AV	% oleic acid	2
K ₂₃₂	Spectrophotometry – cyclohexane Spectrophotometry – iso octane	-	Median	5% of AV	-	2
K ₂₇₀	Spectrophotometry – cyclohexane Spectrophotometry – iso octane	≤0.2 >0.2	Median	8% of AV 5% of AV	-	2
Wax content	GC	<50 50-200 >200	Median	20% of AV 14% of AV 9% of AV	mg/kg	0
3,5 stigmastadienes	GC	-	Median	41% of AV	mg/kg	3
Ethyl esters	GC	≤15 >15	Median	30% of AV 15% of AV	mg/kg	0
Total sterols	GC	≤1500 >1500	Median	6% of AV 8% of AV	mg/kg	0
Δ7-stigmasterol	GC	-	Median	20% of AV	% total sterols	2
Insoluble impurities	Gravimetric analysis	-	Median	Robust SD	% w/w	2
Moisture and volatile matter at 103°C	Gravimetric analysis	-	Median	Robust SD	% w/w	2
Total polyphenols	Spectrophotometry (Folin Ciocalteu)	-	Median	Robust SD	mg of caffeic acid /kg of oil	1
Fatty acid composition						
16:0 Palmitic acid	GC	-	Median	5% of AV	% total fatty acids	2
18:0 Stearic acid	GC	-	Median	4% of AV	% total fatty acids	2
18:1 Oleic acid (total cis and trans)	GC	-	Median	0.6% of AV	% total fatty acids	2
18:2 Linoleic acid (cis & trans)	GC	-	Median	2% of AV	% total fatty acids	2
18:3 Linolenic acid (cis & trans)	GC	-	Median	4.4% of AV	% total fatty acids	2

Sample PT-FC-791
Supplied as

Olive oil analysis
2 x 200ml refined olive oil or olive pomace oil

Analyte	Method	Range	AV	SDPA	Units	DP
Free fatty acids (acidity)	Titration	<0.2 0.2-1 >1	Median	24% of AV 5% of AV 3% of AV	% oleic acid	2
K ₂₇₀	Spectrophotometry – cyclohexane Spectrophotometry – iso octane	≤0.2 >0.2	Median	8% of AV 5% of AV	-	2
ΔK	Spectrophotometry – cyclohexane Spectrophotometry – iso octane	-	Median	Robust SD	-	2
Wax content	GC	<50 50-200 >200	Median	20% of AV 14% of AV 9% of AV	mg/kg	0
β-sitosterol (apparent)	GC	≤85 >85	Median	2% of AV 0.4% of AV	% total sterols	2
Campesterol	GC	-	Median	3% of AV	% total sterols	2
Erythrodiol & Uvaol	GC, HPLC	-	Median	7% of AV	% total sterols	2
ΔECN 42	HPLC	-	Median	Robust SD	-	2
Accelerated oxidation test (Rancimat) at 120°C	Rancimat		Median	10% of AV	Induction time (hours)	2
2-glyceryl monopalmitate	GC/Other	-	Median	Robust SD	%	2
Fatty acid composition						
16:1 Palmitoleic acid (cis & trans)	GC	-	Median	6% of AV	% total fatty acids	2
18:1 Oleic acid (total cis and trans)	GC	-	Median	0.6% of AV	% total fatty acids	2
18:1 Oleic acid (trans)	GC	≤0.03 >0.03	Median	0.01 0.02	% total fatty acids	2
18:2 Linoleic acid (trans)	GC	≤0.03 >0.03	Median	0.01 0.02	% total fatty acids	2
18:3 Linolenic acid (trans)	GC	≤0.03 >0.03	Median	0.01 0.02	% total fatty acids	2
20:0 Arachidic acid	GC	-	Median	10% of AV	% total fatty acids	2
20:1 Gadoleic acid (cis & trans)	GC	-	Median	Robust SD	% total fatty acids	2

Sample PT-FC-793
Supplied as

Nutritional analysis of cake
100g cake

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Soxhlet, Acid hydrolysis & Soxhlet, NMR, NIR (food analyser)	All	Median	Robust SD	%	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	%	2
Total dietary fibre	AOAC 2017.16, AOAC 2022.01	All	Median	0.50	%	2
Dietary fibre	AOAC 991.43, AOAC 985.29	All	Median	0.50	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Acidity	Titration	All	Median	Robust SD	% oleic acid	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.20	%	2
Moisture	NIR (food analyser), Microwave, Oven drying, Heating to constant weight	All	Median	Robust SD	%	2
Sodium	Atomic absorption, Titration, Flame Photometry, Ion chromatography, NMR sensor	All	Median	Robust SD	%	2
Chloride	Chloride analyser, Titration, Ion chromatography	All	Median	Robust SD	%	2
Calcium	AAS, ICP-OES, ICP-MS, Ion chromatography, Flame Photometry, Colorimetry, Titration	All	Median	Robust SD	mg/100g	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2

Sample PT-FC-794***
Supplied as

Mycotoxins in spices (spiked)
100g chilli powder/paprika

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Total aflatoxins	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Ochratoxin A	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2

Sample PT-FC-796
Supplied as

Quality of frying oil
150g used frying oil

Analyte	Method	Range	AV	SDPA	Units	DP
Total polar compounds	Column chromatography - gravimetry	25-40	Median	10% of AV	%	1
Free fatty acids (acidity)	Titration	All	Median	Robust SD	% oleic acid	2
Accelerated oxidation test (Rancimat) at 120°C	Rancimat	All	Median	Robust SD	Induction time (hours)	2

Sample PT-FC-797
Supplied as

Sulfur dioxide in dried fruit
200g dried fruit slurry

Analyte	Method	Range	AV	SDPA	Units	DP
Sulfur dioxide	Distillation (Monier Williams), Ion chromatography	100 - 2500	Median	10%	mg/kg	0

Sample PT-FC-798***
Supplied as

Nitrate in infant vegetable food
100g infant vegetable puree

Analyte	Method	Range	AV	SDPA	Units	DP
Nitrate	HPLC, Ion chromatography, Spectrophotometry	10 to 300	Median	25%	mg/kg (as NaNO ₃)	0

Sample PT-FC-799 ***
Supplied as

Egg white allergen in cake mix (allergen testing)
2 x 20g cake mix powder (A and B)

Analyte	Method	Range	AV	SDPA	Units	DP
Egg white protein	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of egg white protein	See Appendix H for possible methods	All	-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-801
Supplied as

Honey essential composition and quality factors
200g honey (blossom/nectar and/or untreated honey)

Analyte	Method	Range	AV	SDPA	Units	DP
Moisture	Refractometer	All	Median	Robust SD	%	1
Electrical conductivity	Conductivity meter	All	Median	Robust SD	mS/cm	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	g/100g	2
pH	pH meter	All	Median	Robust SD	-	2
Free acidity	Titration	All	Median	Robust SD	mEq acid/kg	2
Hydroxymethylfurfural (HMF)	HPLC, White method (spectrophotometry), Winkler (spectrophotometry)	All	Median	Robust SD	mg/kg	1
Diastase enzymatic activity (Diastase number)	Spectrophotometry	All	Median	Robust SD	Schade (Gothe) units/g	1
Fructose	GC, HPLC	All	Median	5%	g/100g	3
Glucose	GC, HPLC	All	Median	5%	g/100g	3
Sucrose	GC, HPLC	All	Median	Robust SD	g/100g	3
Apparent reducing sugars	Titration - Fehling's Solution	All	Median	Robust SD	g invert sugar /100 g honey	2
Water insoluble solids	Gravimetry	All	Median	Robust SD	g/100g	2

Sample PT-FC-802***
Supplied as

Ground coffee quality parameters
200g ground roasted coffee

Analyte	Method	Range	AV	SDPA	Units	DP
Water	Karl Fischer	All	Median	Robust SD	%	2
Ash	Gravimetry	All	Median	Robust SD	%	2
pH	pH meter	All	Median	Robust SD	-	2
Total acidity	Titration	All	Median	Robust SD	% acetic acid	2
Total chlorogenic acids	HPLC	All	Median	Robust SD	mg/g	2
Caffeine	HPLC	All	Median	Robust SD	mg/g	2
Potassium (K)	Flame AAS, ICP-OES	All	Median	Robust SD	g/kg	2
Phosphorus (P)	Flame AAS, ICP-OES	All	Median	Robust SD	mg/kg	0

Analyte	Method	Range	AV	SDPA	Units	DP
Magnesium (Mg)	Flame AAS, ICP-OES	All	Median	Robust SD	mg/kg	0
Calcium (Ca)	Flame AAS, ICP-OES	All	Median	Robust SD	mg/kg	0
Copper (Cu)	ET-AAS, ICP- MS, ICP-OES	All	Median	Robust SD	mg/kg	2

Sample PT-FC-803***
Supplied as

Sudan I, III & IV in palm oil
50g palm oil

Analyte	Method	Range	AV	SDPA	Units	DP
Sudan IV	LC-MS/MS	0.01-0.5	Median	Robust SD	mg/kg	3
Sudan I	LC-MS/MS	0.01-0.5	Median	Robust SD	mg/kg	3
Sudan III	LC-MS/MS	0.01-0.5	Median	Robust SD	mg/kg	3

Sample PT-FC-804‡
Supplied as

Mycotoxins in dried fruits
200g of slurry

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	ELISA, HPLC, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Total aflatoxins	ELISA, HPLC, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Ochratoxin A	ELISA, HPLC, LC-MS/MS	All	Median	25% of AV	µg/kg	2

‡Accredited within the boundaries of LGC's flexible scope of UKAS accreditation

Sample PT-FC-805
Supplied as

Polycyclic Aromatic Hydrocarbons (4 EU markers) in vegetable oil
50ml vegetable oil

Analyte	Method	Range	AV	SDPA	Units	DP
Benzo[a]pyrene	GC-MS, HPLC, GC-MS/MS, Fluorescence	1-5	Median	20% of AV	µg/kg	2
Benz[a]anthracene	GC-MS, HPLC, GC-MS/MS, Fluorescence	1-5	Median	20% of AV	µg/kg	2
Benzo[b]fluoranthene	GC-MS, HPLC, GC-MS/MS, Fluorescence	1-5	Median	20% of AV	µg/kg	2
Chrysene	GC-MS, HPLC, GC-MS/MS, Fluorescence	1-5	Median	20% of AV	µg/kg	2
Sum of EU 4 PAHs	GC-MS, HPLC, GC-MS/MS, Fluorescence	4-20	Median	20% of AV	µg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-808
Supplied as

Almond in rice flour (allergen testing)
2x 20g potentially contaminated rice flour (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Almond protein	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of almond protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-809***
Supplied as

Soy in rice flour (allergen testing)
2x 20g potentially contaminated rice flour (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Soy protein	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of soy protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-810***
Supplied as

β-lactoglobulin in dairy free infant formula (allergen testing)
2x 20g infant formula powder (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
β-lactoglobulin	See Appendix G for possible methods	All	Median	Robust SD	µg/kg	2
Presence/absence of β-lactoglobulin	See Appendix H for possible methods	All	-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation.

Sample PT-FC-811
Supplied as

Nutritional analysis of ketchup
200g ketchup

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2

Analyte	Method	Range	AV	SDPA	Units	DP
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Dietary fibre	AOAC 991.43 AOAC 985.29 AOAC 2017.16 AOAC 2022.01	All	Median	Robust SD	%	2
Soluble solids	Refractometer	All	Median	Robust SD	%	2
pH	pH meter	All	Median	Robust SD	-	2
Total acidity	Titration	All	Median	Robust SD	% as acetic acid	2
Citric acid	HPLC	All	Median	Robust SD	mg/100g	2
Formol number	Titration	All	Median	Robust SD	ml 0.1M NaOH/100 g	2
Sodium	Atomic absorption, Flame photometry, Ion chromatography, Titration, NMR sensor	All	Median	Robust SD	%	2
Bostwick Viscosity***	Measured by Bostwick method 12.5 °Brix	All	Median	Robust SD	cm / 30 seconds	2

Sample PT-FC-812
Supplied as

Nutritional analysis of mayonnaise
150g mayonnaise

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Total trans fatty acids	GC	All	Median	Robust SD	% (g/100g)	3
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2

Analyte	Method	Range	AV	SDPA	Units	DP
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Flame photometry, Ion chromatography, Titration, NMR sensor	All	Median	Robust SD	%	2
pH	pH meter	All	Median	0.1	-	2
Cholesterol	GC	All	Median	Robust SD	mg/100g	2
Total acidity	Titration	All	Median	Robust SD	% as acetic acid	2

Sample PT-FC-813***

Nutritional analysis of mustard

Supplied as

150g prepared mustard

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Erucic acid 22:1 n-9	GC-FID, FAME- GC-MS, Quantitative ¹³ C NMR	All	Median	Robust SD	% (g/100g) of total fatty acid content	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Dietary fibre	AOAC 991.43 AOAC 985.29 AOAC 2017.16 AOAC 2022.01	All	Median	Robust SD	%	2

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	All	Median	Robust SD	-	2
Total acidity	Titration	All	Median	Robust SD	% as acetic acid	2

Sample PT-FC-814***

Nutritional analysis of canned fruit

Supplied as

Canned fruit (2 cans are provided)

Analyte	Method	Range	AV	SDPA	Units	DP
Drained weight	Gravimetry	All	Median	Robust SD	g	0
pH	pH meter	All	Median	Robust SD	-	2
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Glucose	GC, HPLC	All	Median	Robust SD	% (g/100g)	2
Fructose	GC, HPLC	All	Median	Robust SD	% (g/100g)	2
Dietary fibre	AOAC 991.43 AOAC 985.29 AOAC 2017.16 AOAC 2022.01 Fibre analyser (e.g. Fibretec)	All	Median	Robust SD	% (g/100g)	2

***Currently not included in LGC's UKAS Scope of Accreditation.

Sample PT-FC-815

Chemical parameters in ground pepper

Supplied as

200g of ground pepper

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Moisture	Drying at 100-105°C Drying at 130°C Drying at 87°C	All	Median	Robust SD	% (m/m)	2
Total ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	% (m/m on dry basis)	2

Analyte	Method	Range	AV	SDPA	Units	DP
Crude fibre, insoluble index	EC 152/2009, Fibre analysis (e.g. Fibretec), Gafta method 10:0, ISO 6865	All	Median	Robust SD	% (m/m on dry basis)	2
Volatile oil	Distillation	All	Median	Robust SD	ml/100g on dry basis	2
Piperine content	HPLC	All	Median	Robust SD	% (m/m) on dry basis	2
	Spectrophotometric (e.g. ASTA 12.1, ISO 5564:1982)	All	Median	Robust SD	% (m/m) on dry basis	2
Acid insoluble ash	Gravimetry	All	Median	Robust SD	% (m/m) on dry basis	2
Non-volatile ether extract	ISO 1108:1992	All	Median	Robust SD	% (m/m) on dry basis	2

Sample PT-FC-816***
Supplied as

Nutritional analysis of dried pasta
100g ground pasta

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	% (g/100g)	2
Moisture	Drying at 100-105°C Drying at 130°C Drying at 87°C	All	Median	Robust SD	% (g/100g)	2
Dietary fibre	AOAC 991.43 AOAC 985.29 AOAC 2017.16 AOAC 2022.01	All	Median	Robust SD	% (g/100g)	2

***Currently not included in LGC's UKAS Scope of Accreditation.

Sample PT-FC-817***
Supplied as

Composition and quality in jam and marmalade
200g jam or marmalade

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Fructose	HPLC, GC	All	Median	Robust SD	% (g/100g)	2
Glucose	HPLC, GC	All	Median	Robust SD	% (g/100g)	2
Soluble solids	Refractometer	All	Median	Robust SD	%	2
pH	pH meter	All	Median	Robust SD	-	2
Moisture	Refractometer Oven drying	All	Median	Robust SD	%	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	%	3
Total acidity	Titration	All	Median	Robust SD	% as citric acid anhydrous	2
Brix	Densitometer, Refractometer	All	Median	Robust SD	%	2

Sample PT-FC-818***
Supplied as

Foreign bodies in food products
Sample A (biscuit) / Sample B (paste) (both potentially contaminated)

Analyte	Method	Range	AV	SDPA	Units	DP
Presence/absence	Microscopy, X-ray, SEM, ultrasonic imaging, NMR, MRI, Hyperspectral imaging, Thermal imaging	All	Formulation	N/A	-	-
Identification of foreign body	All	-	Formulation	N/A	-	-

***Currently not included in LGC's UKAS Scope of Accreditation.

Sample PT-FC-819

Supplied as

Chemical analysis of table salt

15g for As, Pb, Cd, Hg, Cu testing and 300g table salt for all the other parameters

Analyte	Method	Range	AV	SDPA	Units	DP
Purity	Calculation, Precipitation of NaCl	All	Median	Robust SD	% as NaCl on dry basis	1
Moisture	Drying at 100-105°C Drying at 130°C Drying at 87°C	All	Median	Robust SD	%	2
Sulfate	ISO 2480:1972 EuSalt/AS015-2007 (ICP-OES) EuSalt/ AS 018-2005 (HP-IC) Other (please specify)	All	Median	Robust SD	mg/kg	0
Iodine	Titration, Ion Selective electrode	All	Median	Robust SD	mg Iodine/kg	2
Calcium	ICP-OES	All	Median	Robust SD	mg/kg	0
Magnesium	ICP-OES	All	Median	Robust SD	mg/kg	0
Total Arsenic	GFAAS, ICP-MS, ICP-OES, Ag-DDTC photometric	All	Median	Robust SD	mg/kg	3
Lead	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Mercury	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Copper	GFAAS, ICP-MS, ICP-OES, ZBEC photometric	All	Median	Robust SD	mg/kg	2
Ferrocyanides	Spectrophotometry, HPLC,	All	Median	Robust SD	mg/kg (expressed as anhydrous potassium ferrocyanide)	2

Sample PT-FC-820***

Supplied as

Lactose (low levels) in food products

100g food product

Analyte	Method	Range	AV	SDPA	Units	DP
Lactose	Ion chromatography, HP-AEC	<1g/100g	Median	Robust SD	% (g/100g)	3

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-822
Supplied as

Vinegar quality analysis
100ml of vinegar

Analyte	Method	Range	AV	SDPA	Units	DP
Total acidity	Titration	All	Median	Robust SD	% acetic acid	2
Total ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	Robust SD	%	2
Density	Densitometer	All	Median	Robust SD	g/ml	5
Total dry extract	Gravimetry	All	Median	Robust SD	%	2
Volatile acidity	Calculation	All	Median	Robust SD	% acetic acid	2
pH	pH meter	All	Median	Robust SD	-	2

Sample PT-FC-823***
Supplied as

Amino acid profile in infant formula
50g of infant formula powder

Analyte	Method	Range	AV	SDPA	Units	DP
Alanine (free)	HPLC (post column), HPLC (pre-column), IEC	All	Median	Robust SD	g/100g	3
Arginine (free)		All	Median	Robust SD	g/100g	3
Aspartic acid (free)		All	Median	Robust SD	g/100g	3
Glutamic acid (free)		All	Median	Robust SD	g/100g	2
Glycine (free)		All	Median	Robust SD	g/100g	2
Histidine (free)		All	Median	Robust SD	g/100g	3
Isoleucine (free)		All	Median	Robust SD	g/100g	2
Leucine (free)		All	Median	Robust SD	g/100g	2
Lysine (free)		All	Median	Robust SD	g/100g	2
Phenylalanine (free)		All	Median	Robust SD	g/100g	3
Proline (free)	HPLC (post column), HPLC (pre-column), IEC	All	Median	Robust SD	g/100g	2
Serine (free)		All	Median	Robust SD	g/100g	3
Threonine (free)		All	Median	Robust SD	g/100g	3
Tyrosine (free)		All	Median	Robust SD	g/100g	3
Valine (free)		All	Median	Robust SD	g/100g	3
Cystein & Cystine (sum of)		All	Median	Robust SD	g/100g	3
Methionine (free)		All	Median	Robust SD	g/100g	3
Tryptophan (total)		All	Median	Robust SD	g/100g	3
N-acetyl-L-methionine	HPLC, Other (please specify)	220 - 1000	Median	Robust SD	mg/100g	1

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-824***
Supplied as

Instant coffee quality parameters
200g instant coffee

Analyte	Method	Range	AV	SDPA	Units	DP
Moisture	Karl Fischer	All	Median	Robust SD	%	2
Solubility in cold water at 16±2C°	IS 2791	All	Median	-	-	-
Fat	Acid hydrolysis & Soxhlet, NIR (food analyser), Soxhlet,	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total Glucose	AOAC Method 995.13, ISO 24114:2011, Titration	All	Median	Robust SD	% (g/100g)	2
Total Xylose	AOAC Method 995.13, ISO 24114:2011, Titration	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	Robust SD	% (g/100g)	2
Ash	Drying at 500°C, Drying at 525°C Drying at 550°C	All	Median	Robust SD	% (g/100g)	2
pH	pH meter	All	Median	Robust SD	-	2
Total chlorogenic acids	HPLC	All	Median	Robust SD	mg/g	2
Caffeine	HPLC	All	Median	Robust SD	mg/g	2

Sample PT-FC-825***
Supplied as

Authenticity of herbs and spices
2 x 15g dried herb or spice (samples A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Confirmation of authenticity	Microscopy, MS, NGS, FTIR, SCIO, Other (please specify)	N/A	-	-	-	-
Additional questions	Would you consider this sample to satisfy your specification for authenticity? If you consider this sample as not authentic, what adulterant have you detected? What is the specification assessment based on?					

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-826***
Supplied as

Capsaicinoids and heat units in chilli powder or chilli sauce
20g dried chilli powder or chilli sauce

Analyte	Method	Range	AV	SDPA	Units	DP
Capsaicin	HPLC	All	Median	Robust SD	mg/kg	0
Dihydrocapsaicin	HPLC	All	Median	Robust SD	mg/kg	0
Nordihydrocapsaicin	HPLC	All	Median	Robust SD	mg/kg	1
Heat unit	Calculation	All	Median	Robust SD	Scoville heat unit (SHU)	0

Sample PT-FC-827***
Supplied as

Elements in infant fruit/vegetable purée
10g infant fruit/vegetable purée

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
Inorganic arsenic ¹	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3
Lead	AAS, ICP-OES, ICP-MS	All	Median	Robust SD	mg/kg	3

¹Sum of As (III) and As (V)

Sample PT-FC-828***
Supplied as

Nutritional analysis of processed nuts
150g processed nut product (e.g. salted peanuts)

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Titration, Flame photometry, Ion chromatography, NMR sensor	All	Median	Robust SD	% (as Na)	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

Sample PT-FC-829***
Supplied as

Tea quality parameters
100g dried tea

Analyte	Method	Range	AV	SDPA	Units	DP
Water extract	ISO 9768	All	Median	Robust SD	% (g/100g)	2
Total Ash	Gravimetry	All	Median	Robust SD	% (g/100g)	2
Water soluble Ash	ISO 1576:1988, Calculation	All	Median	Robust SD	% (g/100g)	2
Crude fibre	ISO 5498-1981	All	Median	Robust SD	% (g/100g)	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2
Caffeine	HPLC	All	Median	Robust SD	mg/g	2

Sample PT-FC-830***
Supplied as

Vitamin C in fruit/vegetable purée
20g fruit/vegetable powder to be reconstituted

Analyte	Method	Range	AV	SDPA	Units	DP
Vitamin C (as ascorbic acid)	HPLC, Titration	All	Median	Robust SD	mg/kg as ascorbic acid	2

Sample PT-FC-831***
Supplied as

Opiates in poppy seeds
15g ground poppy seeds

Analyte	Method	Range	AV	SDPA	Units	DP
Morphine	GC-MS, LC-MS, HPLC	All	Median	Robust SD	mg/kg	2
Codeine	GC-MS, LC-MS, HPLC	All	Median	Robust SD	mg/kg	2

Sample PT-FC-832
Supplied as

Nutritional analysis of corn meal flour
100g corn meal flour

Analyte	Method	Range	AV	SDPA	Units	DP
Fat	Acid hydrolysis and Soxhlet, NIR, Soxhlet	All	Median	25% of AV	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	% (g/100g)	2
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	-	% (g/100g)	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.20	% (g/100g)	2
Moisture	Drying at 100-105°C Drying at 130°C Drying at 87°C	All	Median	0.50	% (g/100g)	2
Calcium	AAS, Colorimetry, Flame photometry, ICP-MS, ICP-OES, Ion chromatography, Titration	All	Median	15% of AV	mg/100g	2

Sample PT-FC-834***
Supplied as

Nutritional analysis and fatty acids in potato crisps
100g of blended potato crisps

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, Acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Monounsaturates	GC	All	Median	Robust SD	% (g/100g)	2
Polyunsaturates	GC	All	Median	Robust SD	% (g/100g)	2
Total trans fatty acids	GC	All	Median	Robust SD	% (g/100g)	3
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	-	%	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Titration, Flame photometry, Ion chromatography, NMR sensor	All	Median	Robust SD	%	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-835***
Supplied as

Nutritional analysis and fatty acids in tortilla chips
100g of blended tortilla chips

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	Robust SD	kcal or kJ/100g	0
Fat	Gerber, Soxhlet, Acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	Robust SD	% (g/100g)	2
Monounsaturates	GC	All	Median	Robust SD	% (g/100g)	2
Polyunsaturates	GC	All	Median	Robust SD	% (g/100g)	2
Total trans fatty acids	GC	All	Median	Robust SD	% (g/100g)	3
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	% (g/100g)	2
Total sugars	HPLC, Luff Schoorl, Lane and Eynon	All	Median	Robust SD	% (g/100g)	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	Robust SD	% (g/100g)	2
Dietary fibre	AOAC 985.29, AOAC 991.43, AOAC 2017.16, AOAC 2022.01	All	Median	Robust SD	%	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Flame photometry, Ion chromatography, Titration, NMR sensor	All	Median	Robust SD	%	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-836

Supplied as

Pesticides in pome fruits including glyphosate

100g of material containing up to 20 quantifiable pesticides (from Appendix B)
100g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-837

Supplied as

Pesticides in citrus fruits including glyphosate

100g of material containing up to 20 quantifiable pesticides (from Appendix B)
100g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-838

Supplied as

Pesticides in fruiting vegetables including glyphosate

100g of material containing up to 20 quantifiable pesticides (from Appendix B)
100g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-839

Supplied as

Pesticides in root and tuber vegetables including glyphosate

100g of material containing up to 20 quantifiable pesticides (from Appendix B)
100g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA***	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-840***

Supplied as

Pesticides in pulses including glyphosate

50g of material containing up to 20 quantifiable pesticides (from Appendix B)
50g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

Sample PT-FC-841***

Supplied as

Pesticides in cereals including glyphosate

50g of material containing up to 20 quantifiable pesticides (from Appendix B)
50g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
Glyphosate	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1
AMPA	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

***Currently not included in LGC's UKAS Scope of Accreditation.

Sample PT-FC-843***

Supplied as

Pesticides in spices

50g of material containing up to 20 quantifiable pesticides (from Appendix B)
50g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

**A blank matrix is provided for laboratories that require a spiked quality control material to be run alongside samples being assessed. Results are not required to be returned for the blank matrix provided. Participants will be required to screen the sample provided and report the presence of any pesticides found above their routine reporting limits. Each pesticide detected in the sample should also be quantified.

Sample PT-FC-845***

Supplied as

Mycotoxins in rice

100g of ground rice

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Total aflatoxins	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Ochratoxin A	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Zearalenone	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2

Sample PT-FC-846***

Supplied as

Food labelling benchmark exercise and declaration of nutritional values

Virtual exercise (Participants can report in English and German)

Analyte	Method	AV
Assessment to European Union Food law or equivalent	Qualitative	Expert/Consensus

Sample PT-FC-848***

Supplied as

Vegan food

2 x 10g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Presence or absence of animal DNA	RT-PCR	Qualitative	-	-	-	-

Sample PT-FC-850‡

Supplied as

Vanillin in vanilla extract

3 x 20ml of vanilla extract

Analyte	Method	Range	AV	SDPA	Units	DP
Vanillin	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/kg	0
Ethyl alcohol	GC, Other	All	Median	Robust SD	% v/v	1
Density	Electronic densitometer, densitometer	All	Median	Robust SD	g/ml	4
Refractive index at 20°C	Refractometer, other	All	Median	Robust SD	-	4

***Currently not included in LGC's UKAS Scope of Accreditation

‡Accredited within the boundaries of LGC's flexible scope of UKAS accreditation

Sample PT-FC-851
Supplied as

Gluten in pasta sauce (allergen testing - low in gluten)
25g of material

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten (quantitative)	See Appendix G for possible methods	20 -100	Median	Robust SD	mg/kg	2

Sample PT-FC-852
Supplied as

Gluten and egg white in processed meat (allergen testing)
2 x 20g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten	See Appendix G for possible methods	20-100	Median	Robust SD	mg/kg	2
Egg white protein	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of egg white protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-853
Supplied as

Gluten, soya and milk protein in almond milk (allergen testing)
2 x 25ml of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Soy protein	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Milk protein***	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of soy protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of milk protein***	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of gluten***	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-854
Supplied as

Multi allergens in biscuit or cookie (allergen testing)
Blended biscuit test material

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten***	See Appendix G for possible methods	20-100	Median	Robust SD	mg/kg	2
Egg white protein***	See Appendix G for possible methods	1-30	Median	Robust SD	mg/kg	2
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of egg white protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of milk protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-855[‡]
Supplied as

Gluten on surfaces (allergen testing)
Two surfaces to swab (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten	See Appendix G/H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-856***
Supplied as

Pickles
100g of pickled cucumbers

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	All	Median	Robust SD	-	2
Total Acidity	Titration	All	Median	Robust SD	% acetic acid	2
Calcium chloride	Titration	All	Median	Robust SD	% calcium chloride	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2

Sample PT-FC-857
Supplied as

Ethylene oxide in sesame
60g of sesame paste

Analyte	Method	Range	AV	SDPA	Units	DP
Ethylene oxide (sum of ethylene oxide and 2-chloro-ethanol expressed as ethylene oxide)	GC/MS/MS, LC-ESI-MS/MS	0.5 to 5	Median	Robust SD	mg/kg	3
Ethylene oxide	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3
2 chloroethanol	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3

Sample PT-FC-858***
Supplied as

Relish
100g relish

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	All	Median	Robust SD	-	2
Brix	Densitometer, refractometer	All	Median	Robust SD	%	2
Total Acidity	Titration	All	Median	Robust SD	% acetic acid	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2

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Sample PT-FC-861***
Supplied as

Garlic composition and quality
300g of garlic powder

Analyte	Method	Range	AV	SDPA	Units	DP
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2
Sulfur dioxide	Distillation (Monier Williams)	All	Median	Robust SD	mg/kg	1
	Ion chromatography	All	Median	Robust SD	mg/kg	1
	ASTA 30.0 (Optimised/Modified Monier Williams)	All	Median	Robust SD	mg/kg	1
Allicin	HPLC-UV GC-MS	All	Median	Robust SD	mg/g	2
Volatile organic sulfur compounds content	ISO5567	All	Median	Robust SD	% (m/m) on dry basis	2
Ash (total)	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	%	2
Acid insoluble ash	Drying at 550°C	All	Median	Robust SD	%	3
Bulk index	Graduated cylinder, Volumeter, Measuring vessel	All	Median	Robust SD	ml/100g	1
Bulk Density (Untapped density)	Bulk density	All	Median	Robust SD	g/ml	2
Tapped density	Tapped density	All	Median	Robust SD	g/ml	2

Sample PT-FC-862***
Supplied as

Peanut butter composition and quality
50g of peanut butter

Analyte	Method	Range	AV	SDPA	Units	DP
Fat	Soxhlet, Acid hydrolysis & Soxhlet, NMR, NIR	All	Median	Robust SD	% (g/100g)	2
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-863***
Supplied as

Organic acids (additives) in confectionery and bakery products
100g of product

Analyte	Method	Range	AV	SDPA	Units	DP
Propionic acid (E280)	GC, HPLC, LC-MS/MS, Titration	All	Median	Robust SD	mg/kg	0
Sorbic acid (E200)		All	Median	Robust SD	mg/kg	0
Benzoic acid (E210)		All	Median	Robust SD	mg/kg	0
Citric acid (E330)		All	Median	Robust SD	mg/kg	0
Tartaric acid (E334)		All	Median	Robust SD	mg/kg	0
Acetic acid (E260)		All	Median	Robust SD	mg/kg	0
Malic acid (E296)		All	Median	Robust SD	mg/kg	0
Butyric acid		All	Median	Robust SD	mg/kg	0

The presence of the analytes is material dependent and decimal places may be subject to alteration.

Sample PT-FC-865***
Supplied as

Moisture in green coffee
25g of green coffee

Analyte	Method	Range	AV	SDPA	Units	DP
Moisture	ISO 6673:2003 Loss in mass at 105 °C	All	Median	Robust SD	%	2

Sample PT-FC-866
Supplied as

Elements in ground pepper
10g of ground pepper

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Lead	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Mercury	AAS, ICP-MS	All	Median	Robust SD	mg/kg	3

Sample PT-FC-867***
Supplied as

Mycotoxins in corn
100g of ground corn (maize flour)

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Total aflatoxins	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Ochratoxin A	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Zearalenone	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-868

Supplied as

Ethylene oxide in spices

20g of food product e.g., ground ginger

Analyte	Method	Range	AV	SDPA	Units	DP
Ethylene oxide (sum of ethylene oxide and 2-chloroethanol expressed as ethylene oxide)	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3
Ethylene oxide [‡]	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3
2 chloroethanol [‡]	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3

[‡]Accredited within the boundaries of LGC's flexible scope of UKAS accreditation

Sample PT-FC-869***

Supplied as

Water activity of spices

50g of spices

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

Sample PT-FC-870***

Supplied as

Physical characteristics and colour of paprika

300g of paprika

Analyte	Method	Range	AV	SDPA	Units	DP
Bulk index	Graduated cylinder, Volumeter, Measuring vessel	All	Median	Robust SD	ml/100g	1
Bulk Density (Untapped density)	Bulk density, Untapped Density	All	Median	Robust SD	g/ml	2
Colour strength	ASTA	All	Median	Robust SD	ASTA units	0
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Tapped density	Tapped density	All	Median	Robust SD	g/ml	2

Sample PT-FC-871***

Supplied as

Elements in herbs

10g of herbs

Analyte	Method	Range	AV	SDPA	Units	DP
Total arsenic	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Lead	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Mercury*	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3

*If the material is naturally contaminated, the content of mercury cannot be guaranteed.

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-872***

Bisphenols in 3% aqueous acetic acid (food contact materials – specific migration)

Supplied as

50ml of simulant

Analyte	Method	Range	AV	SDPA	Units	DP
Bisphenol A	GC-MS/MS, HPLC, UHPLC-MS/MS	All	Median	Robust SD	mg/kg	2
Bisphenol S	GC-MS/MS, HPLC, UHPLC-MS/MS	All	Median	Robust SD	mg/kg	2

Sample PT-FC-874***

Lead and Cadmium in 4% aqueous acetic acid (food contact materials – specific migration)

Supplied as

50ml of simulant

Analyte	Method	Range	AV	SDPA	Units	DP
Lead	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3
Cadmium	AAS, ICP-MS, ICP-OES	All	Median	Robust SD	mg/kg	3

Sample PT-FC-875***

Phthalates in vegetable/seed oil (food contact materials – specific migration)

Supplied as

20ml of simulant

Analyte	Method	Range	AV	SDPA	Units	DP
DEHP (CAS 117-81-7)	GC-MS	All	Median	Robust SD	mg/kg	2
BBP (CAS 85-68-7)	GC-MS	All	Median	Robust SD	mg/kg	2
DBP (CAS 84-74-2)	GC-MS	All	Median	Robust SD	mg/kg	2

Sample PT-FC-876***

Water activity of sauces

Supplied as

50g of sauce e.g. ketchup.

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-877***
Supplied as

Nutritional analysis of a plant-based meat alternative
150g of plant-based meat product

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	5% of AV	kcal or kJ/100g	0
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	% (g/100g)	2
Saturates	GC	All	Median	20% of AV	% (g/100g)*	2
Mono-unsaturates	GC	All	Median	20% of AV	% (g/100g)*	2
Poly-unsaturates	GC	All	Median	20% of AV	% (g/100g)*	2
Total trans fatty acids	GC	All	Median	Robust SD	% (g/100g)*	2
Carbohydrate	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	1.00	%	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	1.00	%	2
Dietary fibre	AOAC 985.29, AOAC 991.43	All	Median	0.50	%	2
Total Dietary fibre	AOAC 2017.16, AOAC 2022.01	All	Median	0.50	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Salt	Determined from chloride Determined from sodium	All	Median	0.05	% (as NaCl)	2

*Results should be reported as % (g/100g) of the whole product.

Sample PT-FC-878
Supplied as

Genetically modified organisms (GMO) in cereals and/or grains
5g of test material (the exact material and a list of possible GM events will be provided in the instruction sheet)

Analyte	Method	Range	AV	SDPA	Units	DP
Qualitative identification of the GM events	To be specified in the instruction sheet	-	Formulation	-	Detected/ Not detected	-
Quantification of GM events detected***	qPCR -To be specified in the instruction sheet	All	Median	Robust SD	m/m %	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-879***
Supplied as

Quality of herbs
300g of herbs

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Moisture	Oven drying, ISO 939 – 1980	All	Median	Robust SD	% (m/m)	2
Acid Insoluble Ash	ISO 930 – 1997	All	Median	Robust SD	% (m/m), dry basis	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	% (m/m), dry basis	2
Volatile Oil	EN ISO 6571 2009	All	Median	Robust SD	ml/100g on dry basis	2

Sample PT-FC-880***
Supplied as

Pesticides in herbs
50g of material containing up to 20 quantifiable pesticides (from Appendix B)
50g blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

**A blank matrix is provided for laboratories that require a spiked quality control material to be run alongside samples being assessed. Results are not required to be returned for the blank matrix provided. Participants will be required to screen the sample provided and report the presence of any pesticides found above their routine reporting limits. Each pesticide detected in the sample should also be quantified.

Sample PT-FC-881***
Supplied as

Acrylamide analysis in coffee
50g of instant or ground coffee

Analyte	Method	Range	AV	SDPA	Units	DP
Acrylamide	LC-MS/MS, HPTLC, GC-FID, GC-MS	All	Median	15%	µg/kg	0

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-882†
Supplied as

Peanut, sesame and soya on surfaces (allergen testing)
Two surfaces to swab (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Peanut protein	See Appendix H for the possible methods	All	-	-	Qualitative	-
Sesame protein						
Soy protein						

†Accredited within the boundaries of LGC's flexible scope of UKAS accreditation

Sample PT-FC-883***
Supplied as

Essential quality parameters of soya sauce
100ml of soya sauce

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	All	Median	Robust SD	-	2
Total titratable acidity	Titration	All	Median	Robust SD	mEQ of acid/100ml	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	20% of AV (min 1%)	%	2
Sorbic acid (E200)	GC, HPLC, LC-MS/MS, Titration	All	Median	Robust SD	mg/kg	1
Salt	Determined from chloride, Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Sodium	Atomic absorption, Flame Photometry, Ion chromatography, Titration, NMR sensor	All	Median	0.05	%	2
Magnesium	ICP-OES, ICP-MS, AAS, IC, Colorimetry	All	Median	Robust SD	mg/100g	2
Potassium	ICP-OES, ICP-MS, AAS, IC, Colorimetry	All	Median	Robust SD	mg/100g	2
Calcium	AAS, Colorimetry, Flame photometry, ICP-MS, ICP-OES, Ion chromatography, Titration	All	Median	15% of AV	mg/100g	2

Sample PT-FC-885***
Supplied as

Titanium dioxide in food products
20g of food product (the exact matrix is to be confirmed)

Analyte	Method	Range	AV	SDPA	Units	DP
Titanium dioxide	ICP-MS after acid digestion, GB 5009.246-2016	All	Median	Robust SD	mg(TiO ₂)/kg	2

Sample PT-FC-886***
Supplied as

Illegal dyes in spices
25g spices e.g. chilli or turmeric
25g blank

Participants are provided with a test material containing a minimum of 5 dyes for quantitative determination. A list of 20 potential analytes is provided in Appendix D.

Analyte	Method	Range	AV	SDPA	Units	DP
Dyes from Appendix D	LC-MS/MS, HPLC	All	Median	Robust SD	µg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-889***
Supplied as

Curcuminoids in turmeric
20g of powdered turmeric

Analyte	Method	Range	AV	SDPA	Units	DP
Curcumin	HPLC, LC-MS/MS	All	Median	Robust SD	% g/100g	2
Demethoxycurcumin	HPLC, LC-MS/MS	All	Median	Robust SD	% g/100g	3
Total Curcuminoids	ISO 5562:1983, Spectrophotometry	All	Median	Robust SD	% g/100g	2

Sample PT-FC-890
Supplied as

Mycotoxins in spices (natural levels)
100g chilli powder/paprika

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	0.4 – 5	Median	25% of AV	µg/kg	2
Total aflatoxins	HPLC, ELISA, LC-MS/MS	2 – 15	Median	25% of AV	µg/kg	2
Ochratoxin A	HPLC, ELISA, LC-MS/MS	0.4 – 25	Median	25% of AV	µg/kg	2

Sample PT-FC-891***
Supplied as

Polyols in food products
50g of food product

Analyte	Method	Range	AV	SDPA	Units	DP
Xylitol	HPLC - EN 15086:2006	All	Median	Robust SD	Water free substance in g/100g	1
Isomalt	HPLC - EN 15086:2006	All	Median	Robust SD	Water free substance in g/100g	1
Sorbitol	HPLC - EN 15086:2006	All	Median	Robust SD	Water free substance in g/100g	1
Maltitol	HPLC - EN 15086:2006	All	Median	Robust SD	Water free substance in g/100g	1
Mannitol	HPLC - EN 15086:2006	All	Median	Robust SD	Water free substance in g/100g	1

The presence of the analytes is material dependent.

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-892***
Supplied as

Quality of vanilla beans
50g of vanilla bean powder

Analyte	Method	Range	AV	SDPA	Units	DP
Moisture	NIR (food analyser), Microwave, Oven drying, Heating to constant weight, Karl Fischer	All	Median	Robust SD	%	3
Vanillin	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/g	3
Vanillic acid	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/g	3
p-hydroxybenzoic acid	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/g	3
p-hydroxybenzaldehyde	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/g	3

Sample PT-FC-893***
Supplied as

Water in flavouring powder by Karl Fischer
25g of flavouring powder

Analyte	Method	Range	AV	SDPA	Units	DP
Water	Karl Fischer	All	Median	Robust SD	g/kg	2

Sample PT-FC-894***
Supplied as

Aroma baking ingredients for chemical & physical parameters
50ml of liquid aroma baking test material e.g., vanilla aroma

Analyte	Method	Range	AV	SDPA	Units	DP
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Density	Densitometer	All	Median	Robust SD	g/ml	5
Vanillin*	UHPLC, HPLC, GC-MS, Spectrophotometry	All	Median	Robust SD	mg/kg	1
Brix	Densitometer, refractometer	All	Median	Robust SD	%	2

*Only in products where vanillin is naturally present

Sample PT-FC-895***
Supplied as

Quality parameters of spice mix
100g of spice mix

Analyte	Method	Range	AV	SDPA	Units	DP
Salt	Determined from chloride Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Volatile oil	Distillation	All	Median	Robust SD	ml/100g on dry basis	2
Piperine content	HPLC	All	Median	Robust SD	% (m/m) on dry basis	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-896***
Supplied as

Gluten in cake mix (allergen testing - low in gluten)
25g of material

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten (quantitative)	See Appendix G for possible methods	20-120	Median	Robust SD	mg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-897
Supplied as

Peanut in powdered soup (allergen testing)
2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Peanut protein (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Presence/absence of peanut protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-898***
Supplied as

Milk in infant breakfast cereals (allergen testing)
2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Milk protein (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Presence/absence of milk protein	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-899***
Supplied as

Multi allergens and lactose in soy based infant formula (allergen testing)
2 x 25g soy based infant formula powder (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Gluten	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Milk protein	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Casein	ELISA (kits are specified on Portal)	All	Median	Robust SD	mg/kg	2
β-lactoglobulin	See Appendix G for possible methods	All	Median	Robust SD	µg/kg	2
Lactose	HPLC	<10 mg/100 g	Median	Robust SD	mg/100g	2
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of milk protein	See Appendix H for possible methods	All	-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-900[‡]

Supplied as

pH only in food products

Canned food, ready to eat salad and marinated olives

Analyte	Method	Range	AV	SDPA	Units	DP
pH	pH meter	3-7	Median	0.10	-	2

[‡]Accredited within the boundaries of LGC's flexible scope of UKAS accreditation

Sample PT-FC-901^{*}**

Supplied as

Net content of prepacked product

2 prepacked products for net content (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Net content	Balance and density cup	All	Median	Robust SD	g or ml	2

^{***}Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-902^{*}**

Supplied as

Fusarium mycotoxins in maize

125g sample of maize flour

Analyte	Method	Range	AV	SDPA	Units	DP
Fumonisin B1	HPLC-FLD, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0
Fumonisin B2	HPLC-FLD, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0
T-2	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0
HT-2	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0
Total Fumonisin	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0

Sample PT-FC-903^{*}**

Supplied as

Fusarium mycotoxins in maize oil

50ml of maize oil

Analyte	Method	Range	AV	SDPA	Units	DP
Deoxynivalenol (DON)	HPLC-FLD, UPLC-Q-TOF MS, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	0
Zearalenone (ZON)	HPLC-FLD, UPLC-Q-TOF MS, LC-MS/MS, ELISA	Median	All	Robust SD	µg/kg	2

Sample PT-FC-904^{*}**

Supplied as

Plant based cheese analysis

100g of plant-based cheese

Analyte	Method	Range	AV	SDPA	Units	DP
Total fat	Gerber, NIR (food analyser), Soxhlet	All	Median	Robust SD	g/100g	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2

Analyte	Method	Range	AV	SDPA	Units	DP
Salt	Determined from chloride Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	%	2
Moisture	Drying at 87°C Drying at 100-105°C Drying at 130°C	All	Median	0.50	%	2
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
pH	pH meter	All	Median	Robust SD		2

Sample PT-FC-905***

Ethylene oxide in cereals

Supplied as

20g of blended cereal

Analyte	Method	Range	AV	SDPA	Units	DP
Ethylene oxide (sum of ethylene oxide and 2-chloro-ethanol expressed as ethylene oxide)	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3
Ethylene oxide	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3
2 chloroethanol	GC/MS/MS, LC-ESI-MS/MS	All	Median	Robust SD	mg/kg	3

Sample PT-FC-907***

Oat based drink analysis

Supplied as

150ml of oat based drink

Analyte	Method	Range	AV	SDPA	Units	DP
Total fat	Gerber, NIR (food analyser), Soxhlet	All	Median	Robust SD	g/100g	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Carbohydrate (total & available)	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	%	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	20% of AV (min 1%)	%	2
Salt	Determined from chloride Determined from sodium	All	Median	Robust SD	% (as NaCl)	2
Ash	Drying at 500°C Drying at 525°C Drying at 550°C	All	Median	0.10	%	2

Analyte	Method	Range	AV	SDPA	Units	DP
Total solids	Microwave, Moisture analyser, Oven drying, Vacuum oven	All	Median	Robust SD	%	2
pH	pH meter	All	Median	Robust SD		2

Sample PT-FC-908***

Quality parameters of walnuts

Supplied as

150g of walnuts

Analyte	Method	Range	AV	SDPA	Units	DP
Total fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	%	2
Water activity	Water activity meter	<0.2 0.2 to 0.8 >0.8	Median	0.050 0.020 0.010	A _w	3
Peroxide value	Titration	-	Median	20% of AV (min 0.025)	mEq O ₂ /kg sample	2
Free fatty acids (acidity)	Titration	-	Median	20% of AV (min 0.025)	% oleic acid	2
Moisture	Oven drying	All	Median	Robust SD	% (g/100g)	2

Sample PT-FC-909***

Vitamin C in powdered baby food

Supplied as

20g of powdered baby food

Analyte	Method	Range	AV	SDPA	Units	DP
Vitamin C (as ascorbic acid)	HPLC, Titration	All	Median	Robust SD	mg/kg as ascorbic acid	2

Sample PT-FC-910***

PFAS in egg powder

Supplied as

30g of egg powder

A list of 28 potential PFAS is included in Appendix F

Analyte	Method	Range	AV	SDPA	Units	DP
At least 10 PFAS from Appendix F will be present every time. The individual PFAS can be reported separately.	LC-MS/MS	All	Median	Robust SD	µg/kg	2
Sum of 4 PFAS (PFOS, PFNA, PFOA, PFHxS)	LC-MS/MS	All	Median	Robust SD	µg/kg	2
Sum of all PFAS	LC-MS/MS	All	Median	Robust SD	µg/kg	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-911***

Mineral oil Aromatic Hydrocarbons (MOAH) in tomato based cooking sauce

Supplied as

50g of tomato based cooking sauce

Analyte	Method	Range	AV	SDPA	Units	DP
Total MOAH	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $\geq$ n-C10 to $\leq$ n-C16	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $>$ n-C16 to $\leq$ n-C25	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $>$ n-C25 to $\leq$ n-C35	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $>$ n-C35 to $\leq$ n-C50	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3

Sample PT-FC-912***

Colours as additives in tomato-based cooking sauce

Supplied as

25g of tomato-based cooking sauce

A list of 19 potential food colours is provided in Appendix E.

Analyte	Method	Range	AV	SDPA	Units	DP
Food colours from Appendix E	HPLC, LC-MS/MS	1 – 50	Median	Robust SD	mg/kg	2

Sample PT-FC-913***

Nutritional analysis of a medical nutrition product (FSMP)

Supplied as

100g medical nutrition weight gain product

Analyte	Method	Range	AV	SDPA	Units	DP
Energy	Type 1: Protein+Fat+Total carb, Type 2: Protein+Fat+Available carb+TDF	All	Median	5% of AV	kcal or kJ/100g	0
Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	%	2
Saturates	GC	All	Median	Robust SD	%(g/100g)	2
Carbohydrate (total & available)	Available carbohydrate – direct measurement, Available carbohydrate – calculation, Total carbohydrate	All	Median	Robust SD	%	2
Total sugars	HPLC, Lane and Eynon, Luff Schoorl	All	Median	20% of AV (min 1%)	%	2
Protein	Dumas, Kjeldahl, NIR (food analyser)	All	Median	0.30	%	2
Nitrogen (total)	ISO 14891:2008 (Dumas principle), Kjeldahl	All	Median	Robust SD	g/100g	2

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-914***

Peroxide and melting point of ghee fat

Supplied as:

50g of ghee fat

Analyte	Method	Range	AV	SDPA	Units	DP
Peroxide value	Titration	-	Median	20% of AV (min 0.025)	mEq O ₂ /kg sample	2
Melting point	Melting point apparatus	All	Median	Robust SD	°C	2

Sample PT-FC-915***

Free fatty acids, peroxide value and vitamin E in beef fat

Supplied as:

50g of beef fat

Analyte	Method	Range	AV	SDPA	Units	DP
Peroxide value	Titration	-	Median	20% of AV (min 0.025)	mEq O ₂ /kg sample	2
Free fatty acids	Titration	-	Median	20% of AV (min 0.025)	% oleic acid	2
Vitamin E (α-tocopherol)	HPLC, LC-MS/MS	-	Median	Robust SD	mg/100g as α-tocopherol	3

Sample PT-FC-916***

Aflatoxin M1 in infant formula

Supplied as:

25g infant formula powder

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxin M1	HPLC, LC-MS/MS, ELISA	50 – 250	Median	Robust SD	ng/kg	2

Sample PT-FC-917***

Peanut, mustard and gluten in garlic powder (allergen testing)

Supplied as

2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Peanut protein (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Mustard protein (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Gluten	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Presence/absence of peanut protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of mustard protein	See Appendix H for possible methods	All	-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-918***
Supplied as

Egg, celery and gluten in vegetable baby food (allergen testing)
2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Egg white protein (quantitative)	See Appendix G for possible methods	1 – 30	Median	Robust SD	mg/kg	2
Gluten (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Presence/absence of egg white protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of celery protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-919***
Supplied as

Gluten and soya in rinse water (allergen testing)
2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Soy protein (quantitative)	See Appendix G for possible methods	1 – 30	Median	Robust SD	mg/L	2
Gluten (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/L	2
Presence/absence of soy protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-

Sample PT-FC-920***
Supplied as

Gluten and soya in dairy yoghurt (allergen testing)
2 x 25g of material (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Soy protein (quantitative)	See Appendix G for possible methods	1 – 30	Median	Robust SD	mg/kg	2
Gluten (quantitative)	See Appendix G for possible methods	All	Median	Robust SD	mg/kg	2
Presence/absence of soy protein	See Appendix H for possible methods	All	-	-	Qualitative	-
Presence/absence of gluten	See Appendix H for possible methods	All	-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-921***
Supplied as

Total fat and fatty acid composition of infant formula
50g infant formula powder

Analyte	Method	Range	AV	SDPA	Units	DP
Total Fat	Acid hydrolysis & Soxhlet, Gerber, NIR (food analyser), Soxhlet, NMR	All	Median	Robust SD	%	2
Saturated Fatty Acids	GC	All	Median	Robust SD	g/100g	2
Monounsaturated Fatty Acids	GC	All	Median	Robust SD	g/100g	3
Polyunsaturated Fatty Acids	GC	All	Median	Robust SD	g/100g	3
Total trans Fatty Acids (sum of all)	GC	All	Median	Robust SD	g/100g	3
Omega-3 fatty acids (sum)	GC	All	Median	Robust SD	g/100g	3
Omega-6 fatty acids (sum)	GC	All	Median	Robust SD	g/100g	3
Omega-9 fatty acids (sum)	GC	All	Median	Robust SD	g/100g	3
12:0 Lauric acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
14:0 Myristic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
14:1 n-5 Myristoleic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
15:0 Pentadecanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
16:0 Palmitic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
16:1 Palmitoleic acid (cis & trans)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
17:0 Heptadecanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:0 Stearic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:1 Oleic acid (cis) n-9	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2

18:1 Oleic acid (total cis and trans)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:1 Trans Fatty Acids	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:2 trans Fatty Acids	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:3 trans Fatty Acids	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
Sum of oleic 18:1 cis n-9 & vaccenic cis 18:1 n-11	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:2 Linoleic acid (n-6) cis & trans	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:3 Linolenic acid (n-3) cis & trans	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
18:3 γ Linolenic Acid n-6)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:0 Arachidic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:1 Gondoic acid n-9	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:2 Eicosadienoic acid n-6	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:4 Arachidonic Acid n-6	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
20:5 Eicosapentaenoic Acid n-3	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
22:0 Behemic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
22:1 Erucic acid (cis-13- docosenoic acid)	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
22:6 Docosahexaenoic Acid n-3	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2

24:0 Tetracosanoic acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2
24:1 Nervonic Acid	GC	All	Median	≤10: Robust SD >10: 5% of AV	% total fatty acids	2

*Values below 0.5% are to be considered as below the limit of detection and performance scores will not be provided.

Sample PT-FC-922***
Supplied as

Multi-mycotoxins in fruit granola
100g of powdered fruit granola

Analyte	Method	Range	AV	SDPA	Units	DP
Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Total aflatoxins	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Ochratoxin A	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Deoxynivalenol (DON)	HPLC-FLD, UPLC-Q-TOF MS, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
Zearalenone (ZON)	HPLC, ELISA, LC-MS/MS	All	Median	25% of AV	µg/kg	2
Fumonisin B1	HPLC-FLD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
Fumonisin B2	HPLC-FLD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
Sum of Fumonisin B1 + Fumonisin B2	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
T-2	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
HT-2	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1
Sum of HT-2 toxin and T-2 toxin	HPLC-FLD, UHPLC-DAD, LC-MS/MS, ELISA	All	Median	Robust SD	µg/kg	1

Sample PT-FC-923***
Supplied as

Cereulide in infant formula
2 x 15g infant formula powder (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Cereulide (quantitative)	ISO 18465:2017 (LC-MS/MS), LC-MS/MS	0.3 - 3	Median	Robust SD	µg/kg	3
Detected/Not Detected (qualitative)	SIDA-MS/MS, Other Bioassay (please specify)		-	-	Qualitative	-

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-924***
Supplied as

Cereulide in polyunsaturated oil
2 x 15g polyunsaturated oil (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Cereulide (quantitative)	ISO 18465:2017 (LC-MS/MS), LC-MS/MS	0.3 - 3	Median	Robust SD	µg/kg	3
Detected/Not Detected (qualitative)	SIDA-MS/MS, Other Bioassay (please specify)		-	-	Qualitative	-

Sample PT-FC-925***
Supplied as

Pesticides in leafy vegetables
100g of material containing up to 20 quantifiable pesticides (from Appendix B)
100g Blank**

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	µg/kg	1

**A blank matrix is provided for laboratories that require a spiked quality control material to be run alongside samples being assessed. Results are not required to be returned for the blank matrix provided. Participants will be required to screen the sample provided and report the presence of any pesticides found above their routine reporting limits. Each pesticide detected in the sample should also be quantified.

Sample PT-FC-926***
Supplied as

Light filth in paprika
2 x 100g of paprika (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Filth units	Light filth examination / microscopic analysis	All	Median	Robust SD	Filth units per 100g	0
Presence/absence-General insect fragments	Microscopy	-	-	-	Qualitative	-
Presence/absence-mammalian hair	Microscopy	-	-	-	Qualitative	-
Quantification/count of general insect fragments	Microscopy	All	Median	Robust SD	Count per 100g	0
Quantification/count of mammalian hair	Microscopy	All	Median	Robust SD	Count per 100g	0

***Currently not included in LGC's UKAS Scope of Accreditation

Sample PT-FC-927***
Supplied as

Mineral oil Aromatic Hydrocarbons (MOAH) in spices
100g of spices

Analyte	Method	Range	AV	SDPA	Units	DP
Total MOAH	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $\geq$ n-C10 to $\leq$ n-C16	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $>$ n-C16 to $\leq$ n-C25	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3
MOAH $>$ n-C25 to $\leq$ n-C35	GC-MS, LC-GC-FID/MS	All	Median	Robust SD	mg MOAH / kg sample	3

Sample PT-FC-928**
Supplied as

Soy, milk and egg on surfaces (allergen testing)
Two surfaces to swab (A & B)

Analyte	Method	Range	AV	SDPA	Units	DP
Soy protein	See Appendix H for the possible methods	All	-	-	Qualitative	-
Milk protein						
Egg white protein						

Sample PT-FC-929***
Supplied as

Steviol glycosides in food
30g of nutritionally complete powdered food

Analyte	Method	Range	AV	SDPA	Units	DP
Total steviol glycosides (as steviol equivalents)	JECFA 2010	All	RMean	Robust SD	mg/L	2
Rebaudioside A (as steviol equivalents)	HPLC USP-Food Chemicals Codex, UHPLC- UV/PDA, LC-MS/MS	All	RMean	Robust SD	mg/L	2
Rebaudioside M (as steviol equivalents)		All	RMean	Robust SD	mg/L	2
Stevioside (as steviol equivalents)		All	RMean	Robust SD	mg/L	2

Sample PT-FC-930***
Supplied as

Pesticides in wheat (target compounds)
50g of material containing the pesticides (from Appendix J)
50g Blank**

(Results should be reported for quantitative determination of the target pesticides listed in Appendix J only)

Analyte	Method	Range	AV	SDPA	Units	DP
Pesticides	GC-ECD, GC-MS, GC-MS/MS, HPLC, LC-MS, LC-MS/MS	All	Median	25% of AV	μ g/kg	1

A blank matrix is provided for laboratories that require a spiked quality control material to be run alongside samples being assessed. Results are not required to be returned for the blank matrix provided. This test material contains all pesticide residues listed in Appendix J, selected from compounds detected in wheat across Europe, North America, and Asia over the past five years.*Currently not included in LGC's UKAS Scope of Accreditation

Pesticide definitions: Participants should follow the EU residue definition as outlined in the European Commission's guidance on pesticide Maximum Residue Levels (MRLs).

<https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/start/screen/products>

APPENDIX B – Potential pesticide residues (parent compounds only unless stated)
Sample 836 to 843, 880, 925

2,4-D (94-75-7)	2-phenylphenol (90-43-7)	Abamectin (71751-41-2)	Acephate (30560-19-1)
Acetamiprid (135410-20-7)	Acetochlor (34256-82-1)	Acrinathrin (101007-06-1)	Alachlor (15972-60-8)
Aldicarb ¹ (116-06-3)	Aldrin (309-00-2)	Aminocarb (2032-59-9)	Amitraz (33089-61-1)
Anthraquinone (84-65-1)	Asulam (3337-71-1)	Atrazine (1912-24-9)	Azinphos-ethyl (2642-71-9)
Azinphos-methyl (86-50-0)	Azoxystrobin (131860-33-8)	Benalaxyl (71626-11-4)	Benfuracarb (82560-54-1)
Benthiavalicarb-isopropyl (177406-68-7)	Bifenthrin (82657-04-3)	Biphenyl (92-52-4)	Bitertanol (55179-31-2)
Boscalid (188425-85-6)	Broflanilide (1207727-04-5)	Bromophos-ethyl (4824-78-6)	Bromophos-methyl (2104-96-3)
Bromopropylate (18181-80-1)	Bromoxynil (1689-84-5)	Bromuconazole (116255-48-2)	Bupirimate (41483-43-6)
Buprofezin (953030-84-7)	Cadusafos (95465-99-9)	Captan (133-06-2)	Carbaryl (63-25-2)
Carbendazim (10605-21-7)	Carbofuran (1563-66-2)	Carbophenothion (786-19-6)	Chlorantraniliprole (500008-45-7)
Chlordane (cis) (5103-71-9)	Chlordane (trans) (5103-74-2)	Chlorfenapyr (122453-73-0)	Chlorfenvinphos (470-90-6)
Chloridazon (1698-60-8)	Chlorobenzilate (510-15-6)	Chlorothalonil (1897-45-6)	Chlorpropham (101-21-3)
Chlorpyrifos (2921-88-2)	Chlorpyrifos-methyl (5598-13-0)	Chlorthal-dimethyl (1861-32-1)	Chlorthiophos (60238-56-4)
Chlortoluron (15545-48-9)	Clofentezine (74115-24-5)	Clomazone (81777-89-1)	Clothianidin (210880-92-5)
Cyanazine (21725-46-2)	Cyanophenphos (13067-93-1)	Cycloxydim (101205-02-1)	Cyfluthrin (68359-37-5)
Cymoxanil (57966-95-7)	Cypermethrin ⁵ (52315-07-8)	Cyproconazole (94361-06-5)	Cyprodinil (121552-61-2)
Cyromazine (66215-27-8)	DDT ⁴ (50-29-3)	Deltamethrin (52918-63-5)	Diafenthurion (80060-09-9)
Diazinon (333-41-5)	Dichlobenil (1194-65-6)	Dichlobutrazole (75736-33-3)	Dichlofenthion (97-17-6)
Dichlofluanid (1085-98-9)	Dichlorvos (62-73-7)	Dicloran (99-30-9)	Dicofol (115-32-2)
Dieldrin (60-57-1)	Difenoconazole (119446-68-3)	Diffubenzuron (35367-38-5)	Diffufenican (83164-33-4)
Dimethoate (60-51-5)	Dimethomorph ⁵ (110488-70-5)	Dimoxystrobin (149961-52-4)	Dinotefuran (165252-70-0)
Diphenylamine (122-39-4)	Diuron (330-54-1)	Endosulfan ³ (959-98-8)	Epoxiconazole (133855-98-8)
Ethiofencarb ¹ (29973-13-5)	Ethion (563-12-2)	Ethofumesate (26225-79-6)	Ethoprophos (13194-48-4)
Etrimfos (38260-54-7)	Fenamidon (161326-34-7)	Fenamiphos (22224-92-6)	Fenarimol (60168-88-9)
Fenazaquin (120928-09-8)	Fenbuconazole (114369-43-6)	Fenhexamid (126833-17-8)	Fenitrothion (122-14-5)

Fenoxycarb (72490-01-8)	Fenpropathrin (39515-41-8)	Fenpropimorph (67564-91-4)	Fenpyroximate (111812-58-9)
Fenthion ¹ (55-38-9)	Fenvalerate (51630-58-1)	Fipronil ² (120068-37-3)	Fluazinam (79622-59-6)
Flubendiamide (272451-65-7)	Flucythrinate (70124-77-5)	Fludioxonil (131341-86-1)	Flufenoxuron (101463-69-8)
Fluopicolide (239110-15-7)	Fluopyram (658066-35-4)	Fluoxastrobin (361377-29-9)	Flurochloridone (61213-25-0)
Fluroxypyr (69377-81-7)	Flusilazole (85509-19-9)	Flutolanil (66332-96-5)	Flutriafol (76674-21-0)
Fluvalinate-tau (102851-06-9)	Fluxapyroxad (907204-31-3)	Folpet (133-07-3)	Fonofos (944-22-9)
Fosthiazate (98886-44-3)	Furalaxyl (57646-30-7)	Furathiocarb (65907-30-4)	Glufosinate (51276-47-2)
HCH-alpha (319-84-6)	HCH-beta (319-85-7)	HCH-delta (319-86-8)	Heptachlor (76-44-8)
Heptenophos (23560-59-0)	Hexachlorobenzene (118-74-1)	Hexaconazole (79983-71-4)	Hexazinone (51235-04-2)
Hexythiazox (78587-05-0)	Imazalil (35554-44-0)	Imidacloprid (138261-41-3)	Indoxacarb (144171-61-9)
Ioxynil (1689-83-4)	Iprodione (36734-19-7)	Iprovalicarb (140923-17-7)	Isocarbofos (24353-61-5)
Isodrin (465-73-6)	Isofenphos (25311-71-1)	Isofenphos-methyl (99675-03-3)	Isoprothiolane (50512-35-1)
Isoproturon (34123-59-6)	Isoxaben (82558-50-7)	Kresoxim-methyl (143390-89-0)	Lambda-cyhalothrin (91465-08-6)
Lenacil (2164-08-1)	Lindane (58-89-9)	Linuron (330-55-2)	Lufenuron (103055-07-8)
Malathion (121-75-5)	Mecarbam (2595-54-2)	Mepanipyrim (110235-47-7)	Metaconazole (125116-23-6)
Metalaxyl (57837-19-1)	Metamitron (41394-05-2)	Metazachlor (67129-08-2)	Methabenzthiazuron (18691-97-9)
Methacrifos (62610-77-9)	Methamidophos (10265-92-6)	Methidathion (950-37-8)	Methiocarb ¹ (2032-65-7)
Methomyl (16752-77-5)	Methoxyfenozide (161050-58-4)	Metolachlor ⁵ (51218-45-2)	Metolcarb (1129-41-5)
Metoxuron (19937-59-8)	Metrafenone (220899-03-6)	Metribuzin (21087-64-9)	Mevinphos ⁵ (7786-34-7)
Monocrotophos (6923-22-4)	Monolinuron (1746-81-2)	Monuron (150-68-5)	Myclobutanil (88671-89-0)
Napropamide (15299-99-7)	Nitenpyram (150824-47-8)	Nitrofen (1836-75-5)	Novaluron (116714-46-6)
Nuarimol (63284-71-9)	Omethoate (1113-02-6)	Oxadixyl (77732-09-3)	Oxamyl (23135-22-0)
Oxychlordane (27304-13-8)	Oxydemeton-methyl (301-12-2)	Oxyfluorfen (42874-03-3)	Paclobutrazol (76738-62-0)
Parathion (56-38-2)	Parathion-methyl (298-00-0)	Penconazole (66246-88-6)	Pendimethalin (40487-42-1)
Permethrin ⁵ (52645-53-1)	Phenothrin (26002-80-2)	Phenthoate (2597-03-7)	Phosalone (2310-17-0)
Phosmet (732-11-6)	Phosphamidon (13171-21-6)	Picoxystrobin (117428-22-5)	Pirimicarb (23103-98-2)
Pirimiphos-ethyl (23505-41-1)	Pirimiphos-methyl (29232-93-7)	Prochloraz (67747-09-5)	Procymidone (32809-16-8)
Profenofos (41198-08-7)	Promecarb (2631-37-0)	Prometrym (7287-19-6)	Propamocarb (24579-73-5)
Propaquizafop (111479-05-1)	Propargite (2312-35-8)	Propazine (139-40-2)	Propetamphos (31218-83-4)

Propiconazole (60207-90-1)	Propoxur (114-26-1)	Propyzamide (23950-58-5)	Proquinazid (189278-12-4)
Pymetrozine (123312-89-0)	Pyraclostrobin (175013-18-0)	Pyrazophos (13457-18-6)	Pyrethrins (8003-34-7)
Pyridaben (96489-71-3)	Pyridalyl (179101-81-6)	Pyridaphenthion (119-12-0)	Pyrifenoxy (88283-41-4)
Pyrimethanil (53112-28-0)	Pyriproxifen (95737-68-1)	Quinalphos (13593-03-8)	Quinoxifen (124495-18-7)
Quintozene (82-68-8)	Simazine (122-34-9)	Spinosad (168316-95-8)	Spirodiclofen (148477-71-8)
Spiromesifen (283594-90-1)	Tebuconazole (107534-96-3)	Tebufenozide (112410-23-8)	Tebufenpyrad (119168-77-3)
Tebuthiuron (34014-18-1)	Tecnazene (117-18-0)	Teflubenzuron (83121-18-0)	Tefluthrin (79538-32-2)
Terbacil (5902-51-2)	Terbutylazine (5915-41-3)	Terbutryn (886-50-0)	Tetrachlorvinphos (22248-79-9)
Tetraconazole (112281-77-3)	Tetradifon (116-29-0)	Tetramethrin (7696-12-0)	Thiabendazole (148-79-8)
Thiacloprid (111988-49-9)	Thiamethoxam (153719-23-4)	Thiodicarb (59669-26-0)	Thiophanate methyl (23564-05-8)
Tolclofos-methyl (57018-04-9)	Tolfenpyrad (129558-76-5)	Tolyfluanid (731-27-1)	Triadimefon (43121-43-3)
Triazophos (24017-47-8)	Triclopyr (55335-06-3)	Trietazine (1912-26-1)	Trifloxystrobin (141517-21-7)
Triflumizole (68694-11-1)	Trifluralin (1582-09-8)	Triticonazole (131983-72-7)	Vinclozolin (50471-44-8)
Zoxamide (156052-68-5)			

Note: Metabolites of the substances listed may also be included:

- ¹ Parent plus sum of sulfoxide and sulfone
- ² Parent plus sum of sulfone
- ³ Sum of alpha and beta
- ⁴ Sum of pp'-DDT, op'-DDT, pp'-DDE and pp'-TDE
- ⁵ Sum of isomers

APPENDIX C – Potential pesticide residues (parent compounds only unless stated)
Sample 777 – Tea matrix

Acetamiprid (135410-20-7)	Cypermethrin ⁸ (52315-07-8)	Flusilazole (85509-19-9)	Phosmet (732-11-6)
Azinphos-methyl (86-50-0)	DDT ⁷ (50-29-3)	HCH-gamma (58-89-9)	Phoxim (14816-18-3)
Bifenthrin (82657-04-3)	Deltamethrin (52918-63-5)	Imidacloprid (138261-41-3)	Profenophos (41198-08-7)
Buprofezin (953030-84-7)	Dicofol (115-32-2)	Indoxacarb (173584-44-6)	Propyzamide (23950-58-5)
Cadusafos (95465-99-9)	Dieldrin (60-57-1)	Isoprocarb (2631-40-5)	Prothiophos (34643-46-4)
Carbaryl (63-25-2)	Difenoconazole (119446-68-3)	Isoxathion (18854-01-8)	Pyridaben (96489-71-3)
Carbendazim (10605-21-7)	Dimethoate (60-51-5)	Malathion (121-75-5)	Quinalphos (13593-03-8)
Chlorfenapyr (122453-73-0)	Endosulfan ⁶ (115-29-7)	Methomyl (16752-77-5)	Tebufenpyrad (119168-77-3)
Chlorfenvinphos (470-90-6)	Endrin (72-20-8)	Myclobutanil (88671-89-0)	Tefluthrin (79538-32-2)
Chlorobenzuron (57160-47-1)	Ethion (563-12-2)	Omethoate (1113-02-6)	Terbufos (13071-79-9)
Chlorpyrifos (2921-88-2)	Etrinfos (38260-54-7)	Oxamyl (23135-22-0)	Triadimefon (43121-43-3)
Chlorpyrifos methyl (5598-13-0)	Fenitrothion (122-14-5)	Pentachlorophenol (87-86-5)	Triadimenol (55219-65-3)
Clofentazine (74115-24-5)	Fenobucarb (3766-81-2)	Permethrin ⁸ (52645-53-1)	Triazophos (24017-47-8)
Cyhalothrin-lambda (91465-08-6)	Fenvalerate (51630-58-1)	Phosalone (2310-17-0)	Trichlorfon (52-68-6)

Note: Metabolites of the substances listed may also be included:

⁶Sum of alpha and beta

⁷ Sum of pp'-DDT, op'-DDT, pp'-DDE and pp'-TDE

⁸ Sum of isomers

APPENDIX D – Potential Dyes

Auramine (492-80-8)	Nitroaniline (100-01-6)	Sudan Black B (4197-25-5)	Sudan Orange G (2051-85-6)
Bixin (6983-79-5)	Orange II (633-96-5)	Sudan I (842-07-9)	Sudan Red 7B (6368-72-5)
Butter Yellow (60-11-7)	Orange OT (2646-17-5)	Sudan II (3118-97-6)	Sudan Red B (3176-79-2)
Fast Garnet (101-89-3)	Para Red (6410-10-2)	Sudan III (85-86-9)	Sudan Red G (1229-55-6)
Metanil Yellow (587-98-4)	Rhodamine B (81-88-9)	Sudan IV (85-83-6)	Toluidine Red (2425-85-6)

APPENDIX E – Potential Colours

Acid Orange 6 (547-57-9)	Acid Yellow 17 (6359-98-4)	Crystal Ponceau 6R (2766-77-0)	Ponceau 4R (2611-82-7)
Acid Red 1 (3734-67-6)	Allura Red AC (25956-17-6)	Fast Green FCF (2353-45-9)	Quinoline Yellow (8004-92-0)
Acid Red 52 (3520-42-1)	Amaranth (915-67-3)	Indigo Carmine (860-22-0)	Sunset Yellow (2783-94-0)
Acid Red 73 (5413-75-2)	Brilliant Blue FCF (3844-45-9)	Naphthol Yellow S (846-70-8)	Tartrazine (1934-21-0)
Acid Red 88 (1658-56-6)	Carmoisine (3567-69-9)	Ponceau 3R (3564-09-8)	

APPENDIX F - List of possible PFAS

PFBA (375-22-4)	PFHxS (355-46-4)	PFHpS (375-92-8)	GenX (13252-13-6)
PFPeA (2706-90-3)	PFDA (335-76-2)	PFNS (98789-57-2)	ADONA (919005-14-4)
PFHxA (307-24-4)	PFUnA; PFUDa (2058-94-8)	PFDS (335-77-3)	Capstone A (80475-32-7)
PFHpA (375-85-9)	PFDoA (307-55-1)	PFUnDS (749786-16-1)	Capstone B (34455-29-3)
PFOS (1763-23-1)	PFTrDA; PFTriA (72629-94-8)	PFDoDS (85187-17-3)	9CI PF3ONS (756426-58-1)
PFOA (335-67-1)	PFBS (375-73-5)	PFTrDS (791563-89-8)	11CI-PF3OUdS (83329-89-9)
PFNA (375-95-1)	PFPeS (2706-91-4)	FOSA (754-91-6)	F53B (73606-19-6)

APPENDIX G - List of possible quantitative methods

N.B. These lists are not exhaustive

Almond Protein

3M Almond Protein ELISA/ Neogen® Almond Protein ELISA Kit 700002297	AgraQuant Almond 10002021	AgraQuant Plus Almond 10002023	AlerTox® ELISA Almond KIT3049
Allergen-Shield Almond A1548/A1596	ELISA Systems Almond ESARD-48	Monotrace Almond Elisa AP1-EK-48/AP1-EK-98	Monotrace Almond Elisa AP2-EK-48/AP2-EK-98
Morinaga BioScience Almond ELISA Kit II Cat.M2123	Prognosis Biotech Almond Free Test SKU E1010/E1030	RIDASCREEN FAST Almond R6901	SENSISpec ELISA Almond (HU0030025/HU0030001)
SureFood® ALLERGEN Almond S3604	Veratox® for Almond (8440)		

β-Lactoglobulin

AgraQuant® Beta-Lactoglobulin 10002034	AgraQuant Almond 10002021/AlerTox® ELISA Beta-Lactoglobulin KIT3042	AlerTox® ELISA Milk (Casein & Beta-Lactoglobulin) KIT3041	Biocheck β-LG Allergen-Check™ ELISA R6036
ELISA systems β-Lactoglobulin Elisa systems ESMRDLG-48	InviLISA® β-Lactoglobulin ELISA Kit 6032005200	Morinaga/Crystal ChemBeta-lactoglobulin ELISA Kit II	NEOGEN BioKits BLG ELISA Assay Kit 902061Y
Prognosis Biotech Allergen-Shield BLG A1348/A1396	Prognosis Biotech BLG Free Test E2710/E2730	RIDASCREEN® β-Lactoglobulin R4901	RIDASCREEN®FAST β-Lactoglobulin R4912

SENSISpec ELISA Beta-Lactoglobulin HU0030026/HU0030002			
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Casein

AgraQuant® Casein	AlerTox® ELISA Casein	Casein ELISA Kit II Cat. M2113	ELISA SYSTEMS Casein ESCASPRD-48
Veratox® for Casein			

Egg White Protein

3M Egg white protein ELISA Kit 700002309	AgraQuant® Egg White 10002026	AgraQuant® Ovalbumin 10002092	AgraQuant® Plus Egg 10002060
AgraQuant® Pro Egg 10007171	Arigo Chicken egg white proteins ELISA ARG80796	Egg Allergen-Check™ ELISA R6032/ R6033	ELISA Systems Processed Egg ESEGGPR-48
Hygiena AlerTox® ELISA Egg (Egg white proteins) KIT3046	Hygiena AlerTox® ELISA Ovalbumin KIT3045	InviLisa® Egg ELISA Kit 6032004200	Monotrace Egg ELISA Kit EOM-EK-48/EOM-EK-96
Morinaga Egg (Ovalbumin) ELISA Kit Cat.M2111	Prognosis Biotech Allergen-Shield Egg A1148/A1196	Prognosis Biotech Egg Free Test E1510/E1530	RIDASCREEN FAST Egg protein ELISA R6402
RIDASCREEN® Egg Art. No. R6411	SENSISpec ELISA Egg white HU0030007 / HU0030031	Veratox® for Egg SKU No. 8450	

Gluten

AgraQuant Gluten 10002002	AgraQuant® Gluten G12 10001994	Biocheck Gluten R5 Allergen-Check™ ELISA R6099-2E	ELISA Systems Generation 3 Gluten ESGLT3-48
GlutenTox® Sticks Plus for Cube (KIT3007)	Hygiena GlutenTox® ELISA Competitive G12 (KIT3012)	Hygiena GlutenTox-ELISA Rapid G12 (KIT3075)	Hygiena PCR Foodproof® Gluten Detection (Kit KIT230061)
InviLisa® Gluten ELISA Kit Item No.: 6032003200	MonoTrace Gluten ELISA (GLU-EK-48/GLU-EK-96)	Morinaga Wheat Protein ELISA kit (Gliadin) Cat. M2103	Morinaga Wheat/Gluten (Gliadin) ELISA Kit II Cat. M2114
Prognosis Biotech Allergen-Shield Gluten S, A1048/A1096	Prognosis Biotech Gluten Free test, E1910/E1930	RIDA®QUICK Gluten quant. Art. No. RAL7073	RIDASCREEN Gliadin R5 (Art. No. R7001) AOAC 2012.01 2016
RIDASCREEN® Gliadin competitive Art. No. R7021	RIDASCREEN® Total Gluten (Art. No. R7041)	RIDASCREEN®EASY Gluten R5 (Art. No. RAE7071)	RIDASCREEN®FAST Gliadin Art. No. R7002
RIDASCREEN®FAST Gliadin sensitive Art. No. R7051	SENSISpec INgezim Gluten Quick 96 wells (30.GL2.K.2)	SENSISpec INgezim Gluten R5 96 wells (30.GLU.K.2)	SENSISpec INgezim Hydrolyzed Gluten 48 wells (30.GLH.K.2)
Veratox for Gliadin R5 SKU No. 8510	Veratox for Gliadin SKU No. 8480		

Milk Protein

AgraQuant® Milk 10002080	AlerTox® ELISA Milk (Casein & Beta-Lactoglobulin) KIT3041	ELISA SystemsTotal Milk ESTMLK-48	InviLisa® Milk ELISA Kit 6032002200
Morinaga/Crystal Chem Total Milk ELISA Kit II Cat. M2122	Morinaga/Crystal ChemBeta-lactoglobulin ELISA Kit II M2112	ProGnosis Biotech Total Milk Free Test SKU E2810/E2830	RIDASCREEN®FAST Milk R4652
SENSISpec ELISA Milk HU0030014, HU0030038	Veratox® for Total Milk SKU No. 8470	Veratox® for Casein SKU No. 8460	

Mustard protein

AgraQuant® Mustard 10002070	AgraQuant® Plus Mustard 10002072	AgraQuant® Pro Mustard 10007150	AlerTox® ELISA Mustard KIT3058
Biofront Mustard ELISA Kit MS1-EK-48/ MS1-EK-96	DNAAllergen2 Mustard Cat number HU0030215	ELISA Systems ESMUS-48	InviLisa® Mustard ELISA Kit 6032007200
Neogen® Mustard Protein ELISA Kit SKU No. 700002304	Prognosis Biotech Allergen-Shield Mustard A2848/A2896	Prognosis Biotech Mustard Free Test E2110/E2130	RIDASCREEN®EASY Mustard Art. No. RAE8201
RIDASCREEN®FAST Mustard Art. No. R6152	SENSISpec ELISA Mustard 96/48 Tests	SureFood® ALLERGEN Mustard Art. No. S3609	Veratox® for Mustard SKU No. 8400

Peanut protein

3M Peanut Protein ELISA	AgraQuant Peanut	AgraQuant Plus Peanut	Morinaga Peanut ELISA Kit II
Peanut Allergen-Check™ ELISA	RIDASCREEN Peanut	SureFood® ALLERGEN Peanut S3603	Thermo Scientific™ ELISA Systems™ Peanut (Sensitive) Residue Detection
Veratox VIP for Peanut	Veratox for Peanut		

Soy protein

3M Soy Protein Kit E96SOY	AgraQuant Soy (Romer) (10002015)	AlerTox® ELISA Soy KIT3047	Biofront MonoTrace Soy ELISA Kit SG6-EK-48/SG6-EK-96
ELISA Systems Soy ESSOYPRD-48	foodproof® Soya Detection Kit KIT230058	InviLisa® Soya ELISA Kit 6032006200	Morinaga/Crystal Chem Soy ELISA Kit II M2117
Neogen® Soy Protein ELISA Kit E96SOY	Prognosis Biotech Allergen-Shield Soy A1848/A1896	Prognosis Biotech Soy Free Test E1310/E1330	RIDASCREEN FAST Soya 7102
SENSISpec ELISA Soy 96/48 Tests (HU0030023 / HU0030047)	SENSISpec ELISA Total Soy Protein 96/48 Tests (HU0030075 / HU0030076)	SureFood® ALLERGEN Soya S3601	Veratox® for Soy 8410

APPENDIX H - List of possible qualitative methods N.B. These lists are not exhaustive

Almond Protein

3M Almond Protein ELISA/ Neogen® Almond Protein ELISA Kit 700002297	AgraQuant Almond 10002021	AgraQuant Plus Almond 10002023	AgraStrip® Pro Allergen - Almond 10007055
AlerTox® ELISA Almond KIT3049	AlerTox® Sticks: Almond KIT3033	Allergen-Shield Almond A1548/A1596	bioavid Lateral Flow Almond incl. Hook line BLH701-15
ELISA Systems Almond ESARD-48	InviScreen® Almond DNA Detection Kit	Monotrace Almond Elisa AP1-EK-48/AP1-EK-98	Monotrace Almond Elisa AP2-EK-48/AP2-EK-98
Morinaga BioScience Almond ELISA Kit II Cat.M2123	Neogen® Almond Protein Rapid Kit 700002292	Prognosis Biotech Almond Free Test SKU E1010/E1030	Reveal® for Multi-Treenut 8555
Reveal® 3-D for Almond 902086G	RIDASCREEN FAST Almond R6901	SENSISpec ELISA Almond (HU0030025/HU0030001)	SENSIStrip Almond (HU0030110/HU0030150)
SureFood® ALLERGEN Almond Art. No. S3604	Veratox® for Almond (8440)		

β-Lactoglobulin

AgraQuant® Beta-Lactoglobulin 10002034	AgraStrip® Pro Allergen - BLG 10007056	AgraStrip® Pro Allergen - Milk 10007066	AlerTox® ELISA Beta-Lactoglobulin KIT3042
AlerTox® ELISA Milk (Casein & Beta-Lactoglobulin) KIT3041	AlerTox® Sticks: Beta-Lactoglobulin KIT3018	bioavid Lateral Flow Milk Art. No. BL623-15	Biocheck β-LG Allergen-Check™ ELISA R6036
ELISA Systems β-Lactoglobulin Elisa systems ESMRDBLG-48	InviLISA® β-Lactoglobulin ELISA Kit 6032005200	Morinaga/Crystal ChemBeta-lactoglobulin ELISA Kit II	NEOGEN BioKits BLG ELISA Assay Kit 902061Y
Prognosis Biotech Allergen-Shield BLG A1348/A1396	Prognosis Biotech BLG Free Test E2710/E2730	Rapid Test Pro II for Total Milk Cat. M2269	Reveal® 3-D for Total Milk SKU No. 8479
RIDASCREEN® β-Lactoglobulin R4901	RIDASCREEN®FAST β-Lactoglobulin R4912	SENSISpec ELISA Beta-Lactoglobulin HU0030026/HU0030002	SENSIStrip Beta-Lactoglobulin HU0030111

Celery

InviScreen® Celery DNA Detection Kit Item No.: 6012004200	REAL TIME PCR DETECTION TEST KIT FOOD SAFETY Celery Brand: Biopremier SKU: BIOPFS-0049	SureFood® ALLERGEN 4plex Soya / Celery / Mustard + IAC Art. No. S3401	
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Egg White Protein

AgraStrip® Pro Allergen - Whole Egg 10007072	Hygiena AlerTox® Sticks: Egg KIT3025	InviRapid® Egg Allergen Ag Test 6022004102	Morinaga Rapid Test Easy for Egg Cat. M2241
Morinaga Rapid Test Pro II for Egg Cat. M2261	Neogen® Egg White Protein Rapid Kit SKU No. 700002290	R-Biopharm bioavid Lateral Flow Egg incl. Hook line Art. No. BLH708-15	Reveal® 3-D for Egg SKU No. 902082Q
SENSIStrip Egg Protein PowerLine HU0030202/HU0030209	SENSIStrip Egg White HU0030116 / HU0030156		

Gluten

AgraStrip® Gluten G12® 10001995	AgraStrip® Pro Allergen - Gluten 10007062	Allerflow Gluten (ALF-GL)	Bio-Check (UK) Gluten FlowThrough R6096/R6097
Hygiena foodproof® Gluten Detection Kit KIT230061	Hygiena GlutenTox® Pro KIT3000	Hygiena GlutenTox® Pro Surface KIT3002	Hygiena GlutenTox® Sticks Plus KIT3005
Hygiena GlutenTox® Sticks Plus for Cube (KIT3007)	InviRapid® Gluten Allergen Ag Test 6022003102	Morinaga Rapid Test Easy for Gluten Cat. M2243	Morinaga Rapid Test Pro II for Gluten Cat. M2263
Neogen® Gluten Allergen Protein Rapid Test Kit(Formerly 3M™ Gluten Protein Rapid Kit)700002291	Prognosis Biotech Gluten Free test, E1910/E1930	Reveal® 3-D for Gluten SKU No. 8505	RIDA®QUICK Gliadin R7003/R7004/R7005
RIDA®QUICK Gluten quant. Art. No. RAL7073	SENSIStrip Gluten HU0030118/HU0030158	SENSIStrip Gluten PowerLine HU0030134, HU0030139	SureFood® ALLERGEN Gluten Art. No. S3606

Milk Protein

AgraStrip® Pro Allergen - Milk 10007066	Alert® for Total Milk SKU No. 8471	AlerTox® Sticks Total Milk KIT3015	bioavid Lateral Flow Milk Art. No. BL623-15
Morinaga/Crystal Chem Rapid Test Pro II for Total Milk Cat. M2269	Neogen® Milk Protein Rapid Kit (Casein) SKU No. 700002293	ProGnosis Biotech Total Milk Free Test SKU E2810/E2830	Reveal® 3-D for Total Milk SKU No. 8479

SENSIStrip Milk PowerLine Cat. nr. HU0030138, HU0030149	SENSIStrip Milk Protein Cat. nr. HU0030123/HU0030163		
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Mustard Protein

AgraStrip® Pro Allergen - Mustard 10007067	AlerTox® Sticks Mustard Seed KIT3040	bioavid Lateral Flow Mustard incl. Hook line Art. No. BLH703-15	Biofront AllerTrace Mustard LFD AT-MST-20
InviScreen® Mustard DNA Detection Kit Item No.: 6012008200	Reveal® 3-D for Mustard SKU No. 8405	SENSIStrip Mustard (Cat. nr. HU0030125/HU0030165)	SureFood® ALLERGEN 4plex Soya / Celery / Mustard + IAC Art. No. S3401

Peanut Protein

3M Peanut Protein ELISA	AgraQuant Peanut	AgraQuant Plus Peanut	AgraStrip® Pro Allergen - Peanut
Morinaga Peanut ELISA Kit II	Peanut Allergen-Check™ ELISA	R-BIOPHARM Lateral Flow Peanut BLH706-15	Reveal® 3-D for Peanut
RIDASCREEN Peanut	Thermo Scientific™ ELISA Systems™ Peanut (Sensitive) Residue Detection	Veratox VIP for Peanut	Veratox for Peanut

Sesame Protein

AgraStrip® Pro Allergen - Sesame 10007069	AlerTox® Sticks: Sesame KIT3096	bioavid Lateral Flow Sesame incl. Hook line Art. No. BLH709-15	Biofront AllerTrace Sesame LFD AT-SES-20
InviRapid® Sesame Allergen Ag Test 6022009102	InviScreen® Sesame DNA Detection Kit 6012017200	Reveal® 3-D for Sesame	Sensistrip Sesame HU0030131

Soy Protein

3M Soy Protein Rapid Kit L25SOY	AgraStrip® Pro Allergen - Soy 10007070	AlerTox® Sticks: Soy PLUS KIT3097 KIT3098	foodproof® Soya Detection Kit KIT230058
InviRapid® Soya Allergen Ag Test 6022006102	InviScreen® Soya DNA Detection Kit 6012012200	Neogen® Soy Protein Rapid Kit L25SOY	Prognosis Biotech Soy Free Test E1310/E1330
Reveal® 3-D for Soy	RIDA®QUICK Soya R7103	SENSIStrip Total Soy Protein HU0030132	SENSIStrip Total Soy Protein PowerLine HU0030135

APPENDIX J – Target pesticide residues (parent compounds only unless stated)

1,2,4-Triazole (288-88-0)	p,p'-DDE (72-55-9)	Methoprene (40596-69-8)
Acetochlor (34256-82-1)	p,p'-DDT (50-29-3)	Methoxychlor (72-43-5)
Atrazine (1912-24-9)	Deltamethrin (52918-63-5)	MGK-264 (113-48-4)
Azinphos-methyl (86-50-0)	Diazinon (333-41-5)	Myclobutanil (88671-89-0)
Azoxystrobin (131860-33-8)	Dichlorvos (62-73-7)	Parathion-ethyl (56-38-2)
Bifenthrin (82657-04-3)	Diclofop-methyl (51338-27-3)	Parathion-methyl (298-00-0)
Boscalid (188425-85-6)	Difenoconazole (119446-68-3)	Pentachlorobenzene (608-93-5)
Carbaryl (63-25-2)	Disulfoton sulfone (2497-06-5)	Permethrin cis (61949-76-6)
Carbendazim (10605-21-7)	Etridiazole (2593-15-9)	Permethrin trans (61949-77-7)
Carbofuran (1563-66-2)	Fenitrothion (122-14-5)	Phorate (298-02-2)
Carfentrazone-ethyl (128639-02-1)	Fluopyram (658066-35-4)	Phorate sulfone (2588-04-7)
Chlormequat chloride (999-81-5)	Fluridone (59756-60-4)	Piperonyl butoxide (51-03-6)
Chlorpropham (101-21-3)	Hexaconazole (79983-71-4)	Pirimiphos-methyl (29232-93-7)
Chlorpyrifos (2921-88-2)	Imazalil (35554-44-0)	Propanil (709-98-8)
Chlorpyrifos-methyl (5598-13-0)	Imidacloprid (138261-41-3)	Pyriproxyfen (95737-68-1)
Clodinafop-propargyl (105512-06-9)	Lindane (γ-BHC) (58-89-9)	RH 9129 (Fenbuconazole metabolite) (N/A)
Clothianidin (210880-92-5)	Malathion (121-75-5)	Spinosad (168316-95-8)
Cyanazine (21725-46-2)	Malaoxon (Malathion oxygen analog) (1634-78-2)	Tebuconazole (107534-96-3)
Cyfluthrin (68359-37-5)	Metalaxyl / Mefenoxam (57837-19-1)	Thiabendazole (148-79-8)
Cyhalothrin (68085-85-8)	Metconazole (125116-23-6)	Trifluralin (1582-09-8)