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Survey of Acrylamide and Furans in UK Retail Products: Results for Samples Purchased Between January 2017 and November 2017

A report prepared for the Food Standards Agency

March 2018



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1. EXECUTIVE SUMMARY

This report refers to work carried out as part of a rolling survey of process contaminants in UK retail foods. The report contains the results for concentrations of acrylamide and furans in food samples purchased between January 2017 and November 2017:

- A total of 271 samples (comprising multiple lots) were collected by an independent sampling contractor (Ventress Technical) from retail and fast food outlets in seven regions of the UK
- The selection of samples followed a core sampling and analysis plan from a previous acrylamide and furan survey (November 2011- December 2013).
- Samples were categorised in accordance with the requirements for the submission of data to EFSA¹.
- Where necessary, foods were cooked or prepared according to the manufacturers' guidelines prior to homogenisation and analysis.
- All analyses were carried out using accredited methods: a total of 269 tests were carried out for acrylamide and 120 for furans (furan, 2-methyl furan and 3-methyl furan).
- For this period, the number of products found to contain acrylamide levels that exceeded European Commission 'Indicative Values' (IV)² for their food category was 15.

¹ EFSA (European Food Safety Authority), 2017. Specific reporting requirements for contaminants and food additives occurrence data submission in SSD2. EFSA supporting publication 2017:EN-1261. 43 pp. doi:10.2903/sp.efsa.2017.EN-1261.

² Commission Recommendation of 8 November 2013 on investigations into the levels of acrylamide in food (2013/647/EU), oj L 301, 15-17, 12.11.13

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3. INTRODUCTION

Acrylamide, furan and methyl furans (2-methyl furan, 3-methyl furan, 2,5-dimethyl furan) organic compounds produced naturally when some foods are subjected to high temperatures during cooking (including home-cooking) and processing. Regular and prolonged exposure over a lifetime to foods containing high levels of acrylamide and furan has the potential to increase the risk of developing cancer. Experts, including the international Joint Food and Agriculture Organisation and the World Health Organisation Expert Committee on Food Additives (JECFA), have previously concluded that current global levels of dietary exposure to acrylamide and furan indicate a human health concern³. The UK Food Standards Agency (FSA) has concluded that exposure to acrylamide and furan should be as low as reasonably achievable (ALARA). The FSA has produced advice for consumers in relation to acrylamide in food⁴.

3.1 Acrylamide

Acrylamide is a low molecular weight, water soluble organic compound with industrial applications such as the production of polyacrylamides. In 2002 Swedish scientists discovered that acrylamide could form naturally during the preparation of (mostly) starchy foods as temperatures exceeded 120°C. Acrylamide is formed mainly from sugars and the amino acid asparagine, both of which are naturally present in foods. The chemical process that causes this occurs as a minor part of the so called Maillard Reaction; the Maillard Reaction is mainly responsible for the desirable colour and taste of food. Although acrylamide does not occur in foods subjected to lower temperatures and relatively short process times e.g. boiled potatoes, it has been found in a wide range of home-cooked and processed foods, including, bread, coffee, crispbreads, French fries and potato crisps.

3.2 Furan and methyl furans

Furan and methyl furans are volatile organic compounds that are also formed in certain foods during thermal processing. Furan is found in a variety of products, including coffee, prefabricated potato snacks and canned and jarred products which, during processing, have been subjected to a high temperature heat treatment (e.g. roasting, frying, canning etc). The methyl furans are also known to occur in foods, especially coffee. Furan can be formed in food from a variety of precursors naturally present in food (e.g. amino acids, β -carotene, dehydroascorbic acid, polyunsaturated fatty acids and their triglycerides, sugars and vitamin C) and some food additives (e.g. isoascorbic acid, E315) via complex steps which might involve oxidation or the Maillard reaction. The methyl furans have been shown to form in model reactions, similar to furan, from precursors commonly found in foods. Food characteristics, processing and cooking conditions, and losses of furans mainly due to evaporation during the preparation of food at consumer level, determine the final concentrations in food as consumed.

Furan has been classified by the IARC as a possible human carcinogen. Evidence indicates that the latter may occur via a genotoxic mechanism: The harmful effects of furan result from the formation of a reactive metabolite

³ Joint FAO/WHO Expert Committee on Food Additives (2010), Summary and conclusions of the Seventy-second meeting, Rome, 16–25 February 2010. Rome, FAO / WHO

⁴ http://www.food.gov.uk/safereating/chemsafe/acrylamide_branch/

in the body which can bind to cellular components such as DNA. The 2- and 3-methyl substituted furans are believed to be metabolically activated in a similar fashion as the parent furan.

In 2007, the European Commission recommended that member states should carry out monitoring for the presence of furan in heated foods⁵.

3.3 EC Recommendations

This survey was conducted in response to two European Commission Recommendations for pan-European activity on process contaminants: (i) European Commission Recommendation (EU) No. 2010/307 to investigate the levels of acrylamide in food, and in particular to monitor the effectiveness of acrylamide reduction measures as specified in the FoodDrinkEurope toolbox and (ii) European Commission Recommendation (EC) No. 2007/196, to monitor the occurrence levels of furan in foodstuffs.

3.4 European Food Safety Authority

As with previous surveys on acrylamide and furan, all data from this survey will be submitted to the European Food Safety Authority (EFSA). EFSA collates the acrylamide results with those from other Member States and, in the case of furan and methyl furans, these data will be used by EFSA as the basis of developing a risk assessment. EFSA publishes the acrylamide exposure assessments and trend analyses on their website⁶.

On 4th June 2015, EFSA published its Scientific Opinion on acrylamide in food⁷. EFSA agreed with the previous evaluations, that acrylamide in food has the potential to increase the risk of developing cancer. EFSA also considered possible harmful effects of acrylamide on the nervous system and male reproduction, and based on current levels of dietary exposure, these effects were not considered to be a concern. Further information on acrylamide can be obtained from the EFSA website.

In September 2017, EFSA published its Scientific Opinion on furan and methyl furans in food⁸. While an understanding of all the risks posed to health from the presence of furan and methyl furans in food was incomplete, EFSA has recommended that additional data is needed on the toxicity of methyl furans, their occurrence in foods and the effects of the distinct stages of coffee preparation on furan and methyl furans concentrations for all coffee types.

3.5 FSA Surveys

Information and results for all previous surveys can be accessed from the FSA website⁹.

⁵ Commission recommendation of 28 march 2007 on the monitoring of the presence of furan in foodstuffs. Oj L 88/56 29.3.2007

⁶ Available at: <http://www.efsa.europa.eu/en/topics/topic/acrylamide.htm>

⁷ EFSA CONTAM Panel 2015, Scientific Opinion on acrylamide in food. EFSA Journal 2015;13(6):4104, 321 pp. Available at: <https://www.efsa.europa.eu/en/efsajournal/pub/4104> [Accessed June 2016]

⁸ EFSA CONTAM Panel 2017, Scientific opinion on the risks for public health related to the presence of furan and methylfurans in food. EFSA Journal 2017;15(10):5005,142 pp.

⁹ Available at: <https://www.food.gov.uk/science/acrylamide-0>

The results obtained from this 2017 survey form part of a longer term surveillance programme. It is expected that following the current survey period (2014-2018), further analyses of all data and trends regarding the levels of acrylamide and furan in UK retail foods will be carried out.

4. METHODS

4.1 Sampling

Prior to the commencement of sampling, the FSA agreed a detailed sampling plan with the analytical contractor (Premier Analytical Services) who was responsible for coordinating the purchase and collection of samples (via Ventress Technical). A total of 271 samples comprising multiple lots were purchased to cover the 11 Food categories in line with the requirements of EFSA¹⁰ and the European Commission¹¹: French fries / potato products sold as ready to eat (Categories 1 and 10) were obtained from restaurants, fast food outlets and chip shops; all other samples (Categories 2-11) were collected from a wide range of retail outlets including major and smaller supermarkets and independent retailers in the UK.

Details of the sampling plan are given in Table 6 of the appendices (see section 6).

4.2 Sample preparation and analysis

Samples received at the laboratory were prepared and stored according to the Food Standards Agency “Guidelines for undertaking surveys”¹². Potato products from food category 3 and Popcorn from food category 10 were cooked according to manufacturers’ guidelines prior to the determination of acrylamide; because of the volatile nature of the furans, coffee and coffee substitutes were tested before and after preparation for consumption according to manufacturer’s guidelines. Further details of the sample preparation procedures used are given in the appendices (see section 6.2 and Table 7 and Table 8).

Analysis of samples for the 2017 survey was carried out using UKAS accredited methods: the measurements of acrylamide, furan, 2-methyl furan and 3-methyl furan were based on the guidelines laid down in Commission Recommendations 2007/331/EC and 2007/196/EC. All test results were obtained from methods that used labelled isotope internal standards for recovery correction. Further details of the methods together with the analytical quality assurance procedures and measurement uncertainty can be found in the appendices (see sections 6.2 and 6.3).

¹⁰ EFSA (European Food Safety Authority), 2017. Specific reporting requirements for contaminants and food additives occurrence data submission in SSD2. EFSA supporting publication 2017:EN-1261. 43 pp. doi:10.2903/sp.efsa.2017.EN-1261.

¹¹ Commission Recommendation of 8 November 2013 on investigations into the levels of acrylamide in food (2013/647/EU), oJ L 301, 15-17, 12.11.13

¹² Guidelines for undertaking surveys. Available at: <https://www.food.gov.uk/sites/default/files/multimedia/pdfs/fsasurveysguidance.pdf> [accessed June 2015]

5. RESULTS SUMMARIES

A total of 271 samples were collected over the period January 2017 - November 2017 for the analysis of acrylamide and furans in accordance with the test requirements given in Table 1.

Table 1. Summary of samples received (Jan 2017 - Nov 2017) and tests undertaken

Food category / sub category ¹³	Description	Number of samples received	Analyses			
			acrylamide		Furans ^a	
			As received	As consumed	As received	As consumed
1	French fries, sold as ready-to-eat	40	40	-	-	-
2	Potato crisps	30	30	-	-	-
3	Pre-cooked French fries/potato products for home cooking	30	-	30	-	-
4	Bread	25	25	-	-	-
5	Breakfast cereals	24	22	-	24	-
6	Biscuits / crackers	30	30	-	30	-
7	Coffee and coffee substitutes	20	20	-	20	20
8	Baby foods	22 ^b	22	-	22	-
9	Processed cereal based foods for infants & young children	21 ^b	21	-	-	-
10	Other products, based on cereals, potatoes, cocoa and coffee	-	-	-	-	-
10.2	<i>Cake / pastry</i>	6	6	-	-	-
10.3	<i>Tortilla/corn snacks</i>	2	2	-	-	-
10.4	<i>Cereal bars / granola</i>	2	2	-	-	-
	<i>Popcorn</i>	2	-	2	-	2
10.5	<i>Baked potato from fast food outlet</i>	1	1	-	-	-
10.6	<i>Cocoa/choc powder</i>	3	3	-	-	-
	<i>Chocolate (dark)</i>	1	1	-	-	-
11	Other products, not based on cereals, potatoes, cocoa and coffee	-	-	-	-	-
	<i>Canned black olives</i>	2	2	-	-	-
	<i>Canned prunes</i>	2	2	-	2	-
	<i>Dried fruit (dark)</i>	2	2	-	-	-
	<i>Liquorice</i>	2	2	-	-	-
	<i>Vegetable crisps</i>	4	4	-	-	-
	Totals	271	237	32	98	22

^a furan, 2-methyl furan and 3-methyl furan; ^b some samples comprised multiple batch codes due to limited availability

¹³ EFSA (European Food Safety Authority), 2017. Specific reporting requirements for contaminants and food additives occurrence data submission in SSD2. EFSA supporting publication 2017:EN-1261. 43 pp. doi:10.2903/sp.efsa.2017.EN-1261.

5.1 Acrylamide

A summary of acrylamide concentrations (mean, range, number of samples and IV) measured in each of the main categories and sub-categories of the 2017 survey samples is given in Table 2: 269 tests were carried out for acrylamide and the individual sample results for each category can be found in 6.4 of the Appendices.

Table 2. Summary of acrylamide concentrations in each food category / sub-category

Food category / sub category ^a	Description	Sampling date ^b	n	Acrylamide (µg/kg)					n>IV
				mean	min	max	SE	IV ^c	
1	French fries sold as ready to eat	2017	40	156	21	550	21.8	-	-
1.1	<i>French fries from fresh potatoes</i>	<i>Mar-17^b</i>	20	164	21	550	28.9	600	0
		<i>Nov-17^b</i>	20	149	28	548	33.3	600	0
2	Potato crisps and potato-based crackers	2017	30	631	25	2214	85.3	-	-
2.1	<i>Potato crisp from fresh potatoes</i>	<i>Mar-17^b</i>	12	626	315	1292	94.7	1000	2
		<i>Nov-17^b</i>	12	729	219	2214	183.7	1000	4
2.4	<i>Potato-based crackers</i>	<i>2017</i>	6	447	25	864	140.5	1000	0
3	Pre-cooked French fries, potato products for home cooking	2017	30	140	7	538	23.1	-	-
3.1	<i>Fries baked in the oven (oven fries)</i>	<i>Mar-17^b</i>	6	166	16	538	82.1	-	-
		<i>Nov-17^b</i>	6	129	56	192	20.6	-	-
3.2	<i>Deep fried fries</i>	<i>Mar-17^b</i>	2	27	9	44	-	-	-
		<i>Nov-17^b</i>	2	16	7	26	-	-	-
3.3	<i>Unspecified pre-cooked French fries, potato products for home cooking</i>	<i>Mar-17^b</i>	7	174	14	424	55.4	-	-
		<i>Nov-17^b</i>	7	159	30	292	33.8	-	-
4	Soft bread	2017	25	23	3	96	4.3	-	-
4.1	<i>Wheat based bread</i>	<i>2017</i>	24	24	3	96	4.5	80	1
4.2	<i>Soft bread other than wheat based bread</i>	<i>2017</i>	1	8	-	-	-	150	0
5	Breakfast cereals (excluding porridge)	2017	22	221	33	744	47.0	-	-
5.1	<i>Maize, oat, spelt, barley and rice based products</i>	<i>2017</i>	4	66	38	89	13.3	200	0
5.3	<i>Bran products and whole grain cereals, gun puffed grain</i>	<i>2017</i>	18	255	33	744	54.3	400	4
6	Biscuits, crackers, crisp bread and similar (excluding pastry and cake)	2017	30	207	34	637	29.2	-	-
6.1	<i>Crackers with the exception of potato based crackers</i>	<i>2017</i>	6	224	60	470	77.8	500	0
6.2	<i>Crisp bread</i>	<i>2017</i>	3	166	80	272	56.4	450	0
6.3	<i>Biscuits and wafers</i>	<i>2017</i>	11	277	74	637	55.9	500	2
6.4	<i>Gingerbread</i>	<i>2017</i>	4	80	39	182	34.0	1000	0
6.5	<i>Products similar to the other products in this category</i>	<i>2017</i>	6	165	34	275	39.2	500	0

Table 2 continued...

Food category / sub category ^a	Description	Sampling date ^b	n	Acrylamide (µg/kg)					n>IV
				mean	min	max	SE	IV ^c	
7	Coffee and coffee substitutes	2017	20	375	6	1897	93.8	-	-
7.1	<i>Roasted coffee (dry)</i>	2017	8	131	94	164	8.8	450	0
7.2	<i>Instant coffee (dry)</i>	2017	6	504	312	641	47.4	900	0
7.3	<i>Substitute coffee (dry) mainly based on cereals</i>	2017	4	818	237	1897	379.5	2000	0
7.4	<i>Other coffee substitutes (dry)</i>	2017	2	78	6	151	-	4000	0
8	Baby foods , other than processed cereal based foods	2017	22	9	1	51	2.3	-	-
8.1	<i>Baby foods not containing prunes</i>	2017	20	9	1	51	2.4	50	1
8.2	<i>Baby foods, containing prunes</i>	2017	2	11	8	14	-	80	0
9	Processed cereal-based foods for infants and young children	2017	21	17	2	58	4.0	-	-
9.1	<i>Biscuits and rusks for infants and young children</i>	2017	6	36	27	58	7.3	200	0
9.2	<i>Other processed cereal-based foods for infants and young children</i>	2017	12	6	2	12	1.0	50	0
9.3	<i>Unspecified processed cereal-based foods for infants and young children</i>	2017	3	22	3	56	17	50	1
10	Other products, based on cereals, potatoes, cocoa and coffee	2017	17	132	4	326	23.1	-	-
10.2	<i>Cake and pastry</i>	2017	6	94	4	186	28.4	-	-
10.3	<i>Savoury snacks</i>	2017	2	100	40	160	-	-	-
10.4	<i>Other products, based on cereals</i>	2017	4	136	6	251	50.7	-	-
10.5	<i>Other products, based on potatoes</i>	2017	1	246	-	-	-	-	-
10.6	<i>Other products, based on cocoa</i>	2017	4	174	17	326	65.8	-	-
11	Other products, not based on cereals, potatoes, cocoa and coffee	2017	12	417	13	1255	110.0	-	-
	<i>Vegetable crisps</i>	2017	4	806	521	1255	157.2	-	-
	<i>Black olives, canned</i>	2017	2	440	140	740	-	-	-
	<i>Prunes, canned</i>	2017	2	225	97	352	-	-	-
	<i>Liquorice candies</i>	2017	2	201	132	271	-	-	-
	<i>Dates / prunes</i>	2017	2	26	13	38	-	-	-

^a according to EFSA¹⁴; ^b products prepared from seasonal potatoes; ^c EC Indicative Values¹⁵

¹⁴ EFSA (European Food Safety Authority), 2017. Specific reporting requirements for contaminants and food additives occurrence data submission in SSD2. EFSA supporting publication 2017:EN-1261. 43 pp. doi:10.2903/sp.efsa.2017.EN-1261.

¹⁵ Commission Recommendation of 8 November 2013 on investigations into the levels of acrylamide in food (2013/647/EU), oJ L 301, 15-17, 12.11.13

5.2 Furans

Samples from Categories 5-8, 10, and 11 (120 in total) were tested for furan, 2-methyl furan and 3-methyl furan (Table 3, Table 4 and Table 5). The individual sample results for furans in each category can be found in 6.4 of the Appendices.

Table 3. Summary of furan concentrations (mean and range) as received / consumed by survey category

Survey category	Description	Sampling date	n	Furan ($\mu\text{g}/\text{kg}$)			
				Mean ^a	min	max	SE
5	Breakfast cereals (excluding porridge)	2017	24	25	0	116	7.3
6	Biscuits, crackers, crisp bread and similar (excluding pastry and cake)	2017	30	31	0	108	6.0
7	Coffee and coffee substitutes	2017	20	1431	0	4498	345.2
	Coffee and coffee substitutes, as consumed	2017	20	37	0	179	11.9
	<i>Roast</i>	2017	8	3160	1564	4498	292.0
	<i>Roast, as consumed</i>	2017	8	88	22	179	17.7
	<i>Instant</i>	2017	6	439	147	592	67.9
	<i>Instant, as consumed</i>	2017	6	3	1	4	0.4
	<i>Other</i>	2017	6	116	0	486	76.0
	<i>Other, as consumed</i>	2017	6	1	0	5	0.7
8	Baby foods, other than processed cereal based foods	2017	22	23	0	98	4.8
10	Other products, based on cereals, potatoes, cocoa and coffee	2017	2	33	31	36	-
	<i>Popcorn</i>	2017	2	33	31	36	-
11	Other products, not based on cereals, potatoes, cocoa and coffee	2017	2	12	9	15	-
	<i>Canned prunes</i>	2017	2	12	9	15	-

^a Lower bound concentrations (values < LOD = 0)

Table 4. Summary of 2-methyl furan concentrations (mean and range) as received / consumed by survey category

Survey category	Description	Sampling date	n	2-methyl furan ($\mu\text{g}/\text{kg}$) ^a			
				Mean	min	max	SE
5	Breakfast cereals (excluding porridge)	2017	24	12	0	69	4.2
6	Biscuits, crackers, crisp bread and similar (excluding pastry and cake)	2017	30	30	0	136	6.7
7	Coffee and coffee substitutes	2017	20	4830 ^b	0	17639 ^b	1246.1
	Coffee and coffee substitutes, as consumed	2017	20	91	0	582	32.6
	<i>Roast</i>	2017	8	10806 ^b	4477	17639 ^b	1368.7
	<i>Roast, as consumed</i>	2017	8	218	66	582	57.6
	<i>Instant</i>	2017	6	1548	421	2642	304.0
	<i>Instant, as consumed</i>	2017	6	10	3	16	1.8
	<i>Other</i>	2017	6	143	0	599	95.9
	<i>Other, as consumed</i>	2017	6	1	0	6	1.0
8	Baby foods, other than processed cereal based foods	2017	22	1	0	6	0.4
10	Other products, based on cereals, potatoes, cocoa and coffee	2017	2	18	17	19	-
	<i>Popcorn</i>	2017	2	18	17	19	-
11	Other products, not based on cereals, potatoes, cocoa and coffee	2017	2	0	0	0	-
	<i>Canned prunes</i>	2017	2	0	0	0	-

^a Lower bound concentrations (values < LOD = 0); ^b extrapolated values (in excess of upper calibration limit)

Table 5. Summary of 3-methyl furan concentrations (mean and range) as received / consumed by survey category

Survey category	Description	Sampling date	n	3-methyl furan ($\mu\text{g}/\text{kg}$) ^a			
				Mean	min	max	SE
5	Breakfast cereals (excluding porridge)	2017	24	0	0	0	0.0
6	Biscuits, crackers, crisp bread and similar (excluding pastry and cake)	2017	30	0	0	14	0.5
7	Coffee and coffee substitutes	2017	20	187	0	563	46.9
	Coffee and coffee substitutes, as consumed	2017	20	3	0	16	1.1
	<i>Roast</i>	2017	8	422	255	563	38.2
	<i>Roast, as consumed</i>	2017	8	8	3	16	1.5
	<i>Instant</i>	2017	6	60	0	99	13.4
	<i>Instant, as consumed</i>	2017	6	0	0	0	0.0
	<i>Other</i>	2017	6	0	0	0	0.0
	<i>Other, as consumed</i>	2017	6	0	0	0	0.0
8	Baby foods, other than processed cereal based foods	2017	22	1	0	7	0.4
10	Other products, based on cereals, potatoes, cocoa and coffee	2017	2	0	0	0	-
	<i>Popcorn</i>	2017	2	0	0	0	-
11	Other products, not based on cereals, potatoes, cocoa and coffee	2017	2	0	0	0	-
	<i>Canned prunes</i>	2017	2	0	0	0	-

^a Lower bound concentrations (values < LOD = 0)

6. APPENDICES

6.1 Sampling plan

Table 6. Sampling plan Jan - Nov 2017

Category	Sample numbers in product category																												Total						
	1. French fries sold as ready to eat			2. Potato crisps and potato-based crackers			3. Pre-cooked French fries, potato products for home cooking			4. Soft bread		5. Breakfast cereals (excluding porridge)			6. Biscuits, crackers, crisp bread and similar (excluding pastry and cake)					7. Coffee and coffee substitutes				8. Baby foods, other than processed cereal based foods		9. Processed cereal-based foods for infants and young children		10. Other products, based on cereals, potatoes, cocoa and coffee						11. Other products, not based on cereals, potatoes, cocoa and coffee	
Sub category	1.1	2.1	2.2	2.4	6	3.2	3.3	4.1	4.2	5.1	5.2	5.3	6.1	6.2	6.3	6.4	6.5	7.1	7.2	7.3	7.4	8.1	8.2	9.1	9.2	10.2	10.3	10.4	10.5	10.6					
Jan-16								24	1																							25			
Feb										5		19																				24			
Mar	8 ^a	4 ^b	8 ^c	12			6	2	7																							47			
Apr																																			
May													6	3	11	4	6															30			
Jun																		8	6	4	2											20			
Jul																						22	4									26			
Aug																								6	15							21			
Sep																										6	2	3			4	15			
Oct				1	5																							1		4	8	19			
Nov	8 ^a	4 ^b	8 ^c	12			6	2	7																				1			48			
Dec																																			
TOTALS	16	8	16	24	1	5	12	4	14	24	1	5		19	6	3	11	4	6	8	6	4	2	22	4	6	2	4	1	4	12	275			
by category	40			30			30			25		24			30					20				26		21		17						12	275

^a Restaurants; ^b Fast food outlets; ^c Chip Shops

6.2 Sample preparation details and analytical methods

6.2.1 Sample preparation

All samples were prepared according to the Food Standards Agency “Guidelines for undertaking surveys”¹⁶. Where practical, digital images (samples and packaging) were recorded and all packaging retained.

Potato products for home cooking from category 3, bread (category 4) and popcorn (category 10) were cooked according to the manufacturers’ guidelines using domestic appliances e.g. oven, grill, deep fat fryer, microwave (see Table 7): Grills, ovens and deep fat fryers were equilibrated for approximately 10 minutes prior to cooking. Jacket potatoes were cooked in batches of 4 using a microwave while all remaining category 3 samples were cooked as a single layer of product on a baking tray (middle oven shelf) or mesh grill pan as appropriate; Pure sunflower oil was used for frying; bread was baked on the middle oven shelf; popcorn was cooked in batches of 6 x 70 g bags using a microwave.

Coffee and coffee substitute samples were prepared according to the manufacturers guidelines given on the packaging; retail domestic coffee preparation equipment was used as required, e.g. a cafetiere or espresso coffee maker (see Table 8).

6.2.1.1 Homogenisation

Samples requiring analysis of furan, e.g. jars and packets, were separated and retained for individual processing; coffee and coffee substitutes prepared for consumption were analysed immediately after the preparation cycle. These samples were not subjected to bulk homogenisation as this would have resulted in significant losses of volatile furan(s).

Where practical, entire samples (approximately 1kg) were homogenised using a food processor:

- Potato products from Categories 1, 3 and 10 and liquorice from category 11 were homogenized with water (1:2 sample/water w/w) using a high speed blender or food processor.
- Canned products were drained & stones removed prior to homogenization.
- A domestic cheese grater was used for the chocolate.
- Bread from category 4 was air-dried (weight loss recorded) prior to homogenising.
- Category 7 and 9 samples (ground/milled products) were mixed thoroughly prior to analysis
 - A coffee grinder was used for the whole coffee beans.

An aliquot of the homogenised sample was taken for analysis while the remainder was divided into four pots and stored at -18°C.

¹⁶ Guidelines for undertaking surveys. Available at: <https://www.food.gov.uk/sites/default/files/multimedia/pdfs/fsasurveysguidance.pdf> [accessed June 2015]

6.2.1.2 Homogeneity testing

Representative samples from Categories 1-11 were selected at random and the homogeneity determined by replicate (6) sodium analyses. This was based on the assumption that both sodium and the analytes of interest had an equivalent distribution in these samples. Samples were confirmed as homogeneous by comparing the relative standard deviation (RSD) of the replicate measurements with that obtained from method control samples using a statistical F-test.

Samples (2-3 g) were treated with hot concentrated nitric acid prior to determination by atomic absorption spectroscopy on a PE 2100 (Perkin Elmer, USA) according to the procedure of Gorsuch¹⁷. Each batch was analysed with a blank and an in-house reference material.

Table 7. Details of the domestic cooking conditions

Category 3 – March 2017 samples

Sample code	Food sub-category code	Product description	Brand	Best before date	Date of cooking	Cooking conditions
17C-01457	3.1	Straight cut oven chips	Sainsbury's Be Good to Yourself	DEC 2018	21/04/2017	Oven190°C~23min
17C-01458	3.1	Thin & crispy oven chips	Tesco	11/2017	24/03/2017	Oven200°C~14min
17C-01459	3.1	Crispy French fries	McCain	07 2018	24/03/2017	Oven220°C~14min
17C-01460	3.2	Straight cut frying chips	Waitrose Essential	JUN2018	12/04/2017	Fryer175°C~4min
17C-01461	3.1	Chunky chips	Tesco Finest	None declared	24/03/2017	Oven170°C~40min
17C-01462	3.3	Crispy roast potatoes with goose fat	Sainsbury's Taste the Difference	None declared	12/04/2017	Oven180°C~60min
17C-01463	3.1	Steak cut chips - 3 way cook	Heritage	Jul 2018	21/04/2017	Oven200°C~20min
17C-01464	3.1	Homestyle chips	Aunt Bessie's	12/2018	24/03/2017	Oven210°C~20min
17C-01465	3.2	Straight cut chips oven:fry	Asda	01/12/2017	24/03/2017	Fryer175°C~4min
17C-01466	3.3	Crispy potatoes	Sainsbury's	JAN 2019	21/04/2017	Oven200°C~27min
17C-01467	3.3	Potato waffles - 10	Birds Eye	08 2018	08/05/2017	Grill_High~8min
17C-01468	3.3	Roast potatoes	Asda	15 FEB 2018	24/03/2017	Oven200°C~30min
17C-01469	3.3	Smiles	McCain	05 2018	08/05/2017	Oven200°C~15min
17C-01470	3.3	Quick chips	McCain	11 2017	12/04/2017	Microwave1000W~3.30min/200g
17C-01471	3.3	Ready baked jackets (4)	McCain	022018	12/04/2017	Microwave1000W~15min

¹⁷ Gorsuch, T., T., 1970. The Destruction of Organic Matter. Pergamon Press. p21

Table 7. Continued...

Category 3 – November 2017 samples

Sample code	Food sub-category code	Product description	Brand	Best before date	Date of cooking	Cooking conditions
17C-01633	3.1	Straight cut oven chips	Sainsbury's Be Good to Yourself	JUL 2019	11/01/2018	Oven201°C~23min
17C-01634	3.1	Thin & crispy oven chips	Tesco	SEP 2018	10/01/2018	Oven200°C~17min
17C-01635	3.1	Crispy French fries	McCain	04 2019	10/01/2018	Oven222°C~5min
17C-01636	3.2	Straight cut frying chips	Waitrose Essential	JAN2019	15/01/2018	Fryer175°C~4min
17C-01637	3.1	Chunky chips	Tesco Finest	None declared	11/01/2018	Oven170°C~43min
17C-01638	3.3	Crispy roast potatoes with goose fat	Sainsbury's Taste the Difference	None declared	11/01/2018	Oven179°C~60min
17C-01639	3.1	Organic straight cut oven chips	Waitrose Duchy Organic	OCT 2019	11/01/2018	Oven202°C~21min
17C-01640	3.1	Homestyle chips	Aunt Bessie's	06/2019	10/01/2018	Oven200°C~22min
17C-01641	3.2	Straight cut chips oven:fry	Asda	10/2018	15/01/2018	Fryer175°C~4min
17C-01642	3.3	Crispy potatoes	Sainsbury's	SEP 2019	10/01/2018	Oven200°C~25min
17C-01643	3.3	Potato waffles - 10	Birds Eye	04 2019	11/01/2018	Grill_High~9min
17C-01644	3.3	Roast potatoes	Asda	25/09/2018	10/01/2018	Oven200°C~30min
17C-01645	3.3	Smiles	McCain	12 2018	11/01/2018	Oven201°C~15min
17C-01646	3.3	Quick chips	McCain	07 2018	15/01/2018	Microwave1000W~3.30min/200g
17C-01647	3.3	Ready baked jackets (4)	McCain	10 2018	15/01/2018	Microwave1000W~15min

Category 4 - 2017 samples

Sample code	Food sub-category code	Product description	Brand	Best before date	Date of cooking	Cooking conditions
17C-01387	4.1	4 green olive ciabatta rolls	Marks & Spencer	03/02/17 ^a	08/02/2017	Oven180°C~7min

^a product stored at -18°C prior to cooking

Category 10 - 2017 samples

Sample code	Food sub-category code	Product description	Brand	Best before date	Date of cooking	Cooking conditions
17C-01575	10.4	Sweet microwave popcorn	Butterkist	07 2018	20/11/2017	Microwave1000W~2.3min
17C-01576	10.4	Sweet microwave popcorn	Eazy Pop	JUL 2018	20/11/2017	Microwave1000W~2.3min

Table 8. Details of the domestic preparation of coffee and coffee substitutes prior to the analysis of furans “as consumed”.

Category 7 - 2017 samples

Sample code	Product description	Brand	Best before date	Date of preparation	Preparation conditions
17C-01502	Coffee bags	Lyons	NOV 2018	23/01/2018	Freshly boiled water
17C-01503	Italian espresso roasted & ground coffee	Waitrose	MAR 19	23/01/2018	Espresso coffee maker
17C-01504	Guatemala Arabica ground coffee	Percol	10.2018	23/01/2018	Espresso coffee maker
17C-01505	Gajah mountain, Sumatra cafetiere grind coffee	Union Hand-Roasted Coffee	None declared	23/01/2018	Espresso coffee maker
17C-01506	Sumatra Mandheling roast & ground coffee	Tesco Finest	Apr 2018	23/01/2018	Cafetiere
17C-01507	Colombian Fairtrade coffee beans	Sainsbury's Taste the Difference	Apr 2018	16/01/2018	Cafetiere
17C-01508	Colombian ground coffee	Marks & Spencer	05/2018	16/01/2018	Cafetiere
17C-01509	Monsoon Malabar coffee beans	Whittard of Chelsea	08.08.17	16/01/2018	Cafetiere
17C-01510	Freeze dried soluble coffee	Nescafé Gold Blend	03 2019	16/01/2018	Freshly boiled water
17C-01511	Freeze dried decaffeinated soluble coffee	Nescafé Gold Blend Decaff	03 2019	16/01/2018	Freshly boiled water
17C-01512	Freeze dried instant coffee	Kenco Smooth	MAR-2019	16/01/2018	Freshly boiled water
17C-01513	Freeze dried decaffeinated instant coffee	Kenco Decaff	MAR-2019	16/01/2018	Freshly boiled water
17C-01514	Freeze dried instant coffee	L'OR Classic	07-03-2019	16/01/2018	Freshly boiled water
17C-01515	Freeze dried decaffeinated instant coffee	L'OR Décaféiné	04-04-2019	16/01/2018	Freshly boiled water
17C-01516	Chicory & coffee essence	Camp	21 04 19	16/01/2018	Freshly boiled water
17C-01517	Dandelion coffee compound	Symingtons	FEB 2018	16/01/2018	Freshly boiled water
17C-01518	Organic cereal coffee	Lima Yannah Instant	28.02.2019	16/01/2018	Freshly boiled water
17C-01519	Instant blend of cereal and guarana-coffee alternative	Whole Earth Wake Up	NOVEMBER 2018	16/01/2018	Freshly boiled water

Table 8 Continued...

Category 8 - 2017 samples

Sample code	Product description	Brand	Best before date	Date of preparation	Preparation conditions
17C-01520	Instant cereal drink	Barley Cup Original	04.11.2019	16/01/2018	Freshly boiled water
17C-01521	Organic instant cereal drink	Biona Organic Biomalt	04.19	16/01/2018	Freshly boiled water

6.2.2 Acrylamide analysis by GC-MS/MS

Acrylamide was determined as the brominated derivative, 2-bromopropenamide, according to the method of Hamlet and Sadd¹⁸.

Method performance (5 g sample, typical): limits of detection (LOD) and quantification (LOQ) were 0.5 and 3.0 µg/kg respectively; the estimated value for the method uncertainty (single determination) was: ±14% at 49 µg/kg (expanded relative uncertainty with a coverage factor of 2). A summary of the method performance data from this survey can be found in Table 9.

6.2.3 Analysis of furans by GC-MS

Furan, 2-methyl furan and 3-methyl furan were measured in samples using a headspace method based on the original procedure of Becalski *et al*¹⁹ with modifications according to Becalski *et al*^{20,21} and Shen *et al*²². Pre-chilled samples were homogenised at 3°C and an aliquot transferred to a headspace vial containing sodium chloride. Isotopically labelled furans (internal standards) were added and the samples incubated at 40°C prior to sampling the headspace for GC/MS analysis. Because of the volatile nature of the furans all samples were analysed in duplicate: either single analyses of duplicate packs or duplicate analyses of single packs (depending upon availability).

Method performance (10g sample, typical): The LOD and LOQ for all furans were 1 µg/kg and 2.5 µg/kg respectively (unless indicated otherwise in the results); the estimated uncertainty for a single determination over the concentration range 20-100 µg/kg furans was ±20% (expanded relative uncertainty with a coverage factor of 2). A summary of the method performance data from this survey can be found in Table 9.

¹⁸ Hamlet, C. G., & Sadd, P. A. (2004) Rapid, sensitive and selective analysis of acrylamide in cereal products using bromination and GC/MS/MS. *Czech Journal of Food Sciences*, 22, 290-293.

¹⁹ Becalski, A., Forsyth, D., Casey, V., Lau, B.P.-Y., Pepper, K., Seaman, S. (2005), Development and validation of a headspace method for determination of furan in food. *Food Additives and Contaminants*, 22 (6), 535-540.

²⁰ Becalski, A., Hayward, S., Krakalovich, T., Pelletier, L., Roscoe, V., and Vavasour, E. (2010), Development of an analytical method and survey of foods for furan, 2-methylfuran and 3-methylfuran with estimated exposure. *Food Additives and Contaminants*, 27 (6), 764-775.

²¹ Becalski, A., Halldorson, T., Hayward, S., Roscoe, V. (2016), Furan, 2-methylfuran and 3-methylfuran in coffee on the Canadian market. *Journal of Food Composition and Analysis*, 47, 113-119.

²² Shen, M., Liu, Q., Jia, H., Jiang, Y., Nie, S., Xie, J., Li, C., Xie, M., (2016), Simultaneous determination of furan and 2-alkylfurans in heatprocessed foods by automated static headspace gas chromatography mass spectrometry. *LWT - Food Science and Technology* 72, 44-54.

6.3 Analytical quality assurance

All analyses were performed by trained staff in a UKAS accredited laboratory operating an internal audit and review process. All the test methods were all validated in-house and accredited by UKAS (ISO 17025).

Each batch of samples included a procedural blank and an In-House Reference Material (IHRM) or Certified Reference Material (CRM) and / or spiked sample. Method performance was monitored by assessing the data from IHRMs, CRMs and spiked reference materials in accordance with the rules governing Shewhart control charts²³ (this data is summarised in Table 9). The laboratory also participated in the FAPAS proficiency testing schemes available for acrylamide and furan (see Table 10). In addition, 10% of all samples were subjected to a repeat analysis: acceptance criteria for reporting of all results was for the duplicate measurement to be within $\pm 10\%$ of the first measurement.

Table 9. Summary of data obtained from the analysis of IHRM, CRM and spiked samples during this survey

(A) Acrylamide IHRM data

Reference material	Accepted value ($\mu\text{g}/\text{kg}$)				Measured values ($\mu\text{g}/\text{kg}$)			
	n	mean	range ^a	SE	n	mean	range	SE
IHRM Mar 16 ^b	7	22.1	16.3-27.9	0.73	15	21.1	18.0-24.9	0.49

^a upper and lower action limits; ^b dried cereal based material

(B) FAPAS CRM data

Reference material	Accepted value, (μ , $\mu\text{g}/\text{kg}$)	Measured values (x, $\mu\text{g}/\text{kg}$)			z- score ^a	
		n	mean	range	mean	range
CRM 3076 (French fries)	1151	4	1337	1333-1348	1.0	1.0-1.1

^a $z = (x - \mu) / \sigma$; $\sigma = 180$; acceptable z-score ≤ 2

(C) Acrylamide spike recovery data

Nominal spike range ($\mu\text{g}/\text{kg}$)	Recovery (%) ^a			
	n	mean	range	SE
50-835	13	98	86-107	1.4

^a the acceptable recovery range was 80-120%

²³ BS 7785:1994, ISO 8258:1991, Shewhart control charts, British Standards Institution. Available at: <http://www.bsonline.bsi-global.com/server/index.jsp>

(C) Furan spiked recovery data

Nominal spike level ($\mu\text{g}/\text{kg}$)	Recovery (%) ^a			
	n	mean	range	SE
Low spike ^b	16	100	83-114	2.0
High spike ^b	16	101	93-111	1.4

^a the acceptable recovery range was 80-120%; ^b spike range (determined by sample type / preparation e.g. as received / as consumed)

(D) 2-methyl furan spiked recovery data

Nominal spike level ($\mu\text{g}/\text{kg}$)	Recovery (%) ^a			
	n	mean	range	SE
Low spike ^b	13	97	86-107	1.8
High spike ^c	14	99	86-114	2.0

^a the acceptable recovery range was 80-120%; ^b spike range (determined by sample type / preparation e.g. as received / as consumed)

(E) 3-methyl furan spiked recovery data

Nominal spike level ($\mu\text{g}/\text{kg}$)	Recovery (%) ^a			
	n	mean	range	SE
Low spike ^b	14	93	82-103	1.8
High spike ^c	14	96	84-112	2.3

^a the acceptable recovery range was 80-120%; ^b spike range (determined by sample type / preparation e.g. as received / as consumed)

Table 10. FAPAS z-scores obtained during the survey period

Contaminant	Series	n	z-score	
			mean	range
Acrylamide ^a	30	5	0.2	-0.3 to 1.1
Furan ^b	30	2	0.7	0.4 to 1.0

^a Apr 2017 – Jan 18 ; ^b Feb 2017 – Feb 2018

6.4 Individual sample test results

6.4.1 Acrylamide

Category 1 French fries from fresh potatoes – March 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01425	Regular fries	Burger King	Not applicable	Not applicable	UK	London	228
17C-01426	Chips	Café Fresco	Not applicable	Not applicable	UK	Cardiff	194
17C-01427	Chips	Canton Fish Bar	Not applicable	Not applicable	UK	Cardiff	202
17C-01428	Chips	Zero Plus Fish Bar	Not applicable	Not applicable	UK	Cardiff	72
17C-01429	Chips	City Restaurant	Not applicable	Not applicable	UK	Edinburgh	21
17C-01430	Chips	The Abbey	Not applicable	Not applicable	UK	Edinburgh	550
17C-01431	Chips	Marco's Fish Bar	Not applicable	Not applicable	UK	Birmingham	56
17C-01432	Chips	Newton Fish Bar	Not applicable	Not applicable	UK	Birmingham	125
17C-01433	Chips	Moto The Kitchen	Not applicable	Not applicable	UK	Wolverhampton	253
17C-01434	Regular fries	KFC	Not applicable	Not applicable	UK	Edinburgh	185
17C-01435	Chips	21 Fish & Chips	Not applicable	Not applicable	UK	Congleton	220
17C-01436	Side chips	DV8	Not applicable	Not applicable	UK	Congleton	180
17C-01437	Hand cut chips	The Trinity	Not applicable	Not applicable	UK	London	64
17C-01438	Large fries	McDonalds	Not applicable	Not applicable	UK	Cardiff	48
17C-01439	Chips	Perfect Fried Chicken	Not applicable	Not applicable	UK	London	60
17C-01440	Chips	Silver Lounge Café	Not applicable	Not applicable	UK	Larne	130
17C-01441	Chips	The Upper Crust	Not applicable	Not applicable	UK	Larne	336
17C-01442	Chips	Arcade Chip Shop	Not applicable	Not applicable	UK	Antrim	21
17C-01443	Chips	Sainsbury's Café	Not applicable	Not applicable	UK	Cambridge	273
17C-01444	Chips	Khangs Fish & Chips	Not applicable	Not applicable	UK	Cambridge	60

Category 1 French fries from fresh potatoes – November 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01601	Regular fries	Burger King	Not applicable	Not applicable	UK	Bury St Edmunds	179
17C-01602	Chips	Café Fresco	Not applicable	Not applicable	UK	Cardiff	545
17C-01603	Chips	Canton Fish Bar	Not applicable	Not applicable	UK	Cardiff	53
17C-01604	Chips	Zero Plus Fish Bar	Not applicable	Not applicable	UK	Cardiff	67
17C-01605	Chips	City Restaurant	Not applicable	Not applicable	UK	Edinburgh	73
17C-01606	Chips	The Abbey	Not applicable	Not applicable	UK	Edinburgh	144
17C-01607	Chips	Marco's Fish Bar	Not applicable	Not applicable	UK	Birmingham	28
17C-01608	Chips	Newton Fish Bar	Not applicable	Not applicable	UK	Birmingham	39
17C-01609	Chips	Moto The Kitchen	Not applicable	Not applicable	UK	Wolverhampton	186
17C-01610	Regular fries	KFC	Not applicable	Not applicable	UK	Mildenhall	130
17C-01611	Chips	21 Fish & Chips	Not applicable	Not applicable	UK	Congleton	121
17C-01612	Side chips	DV8	Not applicable	Not applicable	UK	Congleton	104
17C-01613	Hand cut chips	The Trinity	Not applicable	Not applicable	UK	London	66
17C-01614	Large fries	McDonalds	Not applicable	Not applicable	UK	Cardiff	183
17C-01615	Chips	Perfect Fried Chicken	Not applicable	Not applicable	UK	London	51
17C-01616	Chips	Silver Lounge Café	Not applicable	Not applicable	UK	Larne	109
17C-01617	Chips	The Upper Crust	Not applicable	Not applicable	UK	Larne	257
17C-01618	Chips	Arcade Chip Shop	Not applicable	Not applicable	UK	Antrim	50
17C-01619	Chips	Sainsbury's Café	Not applicable	Not applicable	UK	Cambridge	548
17C-01620	Chips	Khangs Fish & Chips	Not applicable	Not applicable	UK	Cambridge	41

Category 2 Potato crisp from fresh potatoes – March 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01445	Sea salt & Balsamic vinegar hand cooked crisps	Marks & Spencer	30/05/2017	K7032 Variety MARKIES	UK	Essington	323
17C-01446	Sea salt & Chardonnay wine vinegar crisps	Co-op Truly Irresistible	26 06 17	Taurus 17 051 T5	British potatoes Herefordshire, England	Birmingham	528
17C-01447	Ready salted crisps - 6 pack	Tesco	20 MAY 17	S 20 7051 M14	UK	Congleton	344
17C-01448	Lightly salted handcooked crisps	JackPots	15 07 2017	LOT 1246 DC3 Field: Maslins Variety: L.Claire	East Anglia	Cambridge	1292
17C-01449	Cheddar & onion flavour ridge cut potato crisps	McCoy's	27 05 17	T 7044 F/WD 3065	None declared	Congleton	430
17C-01450	Lightly salted hand cooked potato chips - 5 single packs	Kettle Chips	17 JUN 17	1 7 024	UK	London	471
17C-01451	Sea salted potato crisps - 6 pack	Seabrook	03 JUN 17	7038 R4	Yorkshire, England	Congleton	1192
17C-01452	Simply salted potato crisps - 6 bags	Walkers Lights	22 04 17	GBL 186 031 5099	None declared	Newmarket	653
17C-01453	Hand cooked chips with sea salt	Burts	29 06 2017	Prod: 29 12 16 Field: Englands 1 Cooked by: Richard	Devon, England	N/A ^a	430
17C-01454	Cheese & onion flavour potato crisps	Tayto	10 JUN 17	B1 17046	None declared	Antrim	315
17C-01455	Ready salted potato crisps - 6 pack	Snackrite	10 JUN 17	K 7 061 F5	British potatoes	Birmingham	745
17C-01456	Ready salted potato crisps - 14 pack	Walkers	27-05-17	GBL2 92 055 5193	British potatoes	Cambridge	787

^a Purchased online from amazon.co.uk

Category 2 Potato crisp from fresh potatoes – November 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01621	Sea salt & Balsamic vinegar hand cooked crisps	Marks & Spencer	16/01/2018	J 7262 Variety: DAISY	UK	Cambridge	293
17C-01622	Sea salt & Chardonnay wine vinegar crisps	Co-op Truly Irresistible	21 02 18	17 291 T4 Infinity	UK British potatoes Herefordshire, England	Cambridge	219
17C-01623	Ready salted crisps - 6 pack	Tesco	20 JAN 18	S 7298 M7	UK	Newmarket	368
17C-01624	Lightly salted crisps	JackPots	24 02 2018	LOT 1278 Field: Huttons DC 228	UK	Cambridge	2214
17C-01625	Cheddar & onion flavour ridge cut potato crisps	McCoy's	10 02 18	T 7303 fW F 43380	None declared	Newmarket	284
17C-01626	Lightly salted chips	Kettle Chips	03 MAR 18	A 7 283 M	UK	Newmarket	387
17C-01627	Cheese & onion potato crisps - 6 pack	Seabrook	03 MAR 18	7316 R2	UK	Cambridge	1013
17C-01628	Simply salted potato crisps - 6 bags	Walkers Lights	30 12 17	GBL 180 283 9251	None declared	Congleton	368
17C-01629	Hand cooked chips with sea salt	Burts	10 04 2018	Prod: 10 10 17 Field: Bethany5 Cooked by: Felix	Devon, England	Bloxwich	1528
17C-01630	Cheese & onion flavour potato crisps	Tayto	17 MAR 18	B2 17325	Northern Ireland	Tandragee	688
17C-01631	Ready salted potato crisps - 6 bags	Snackrite	17 FEB 18	K 7 314 Line001	Britain	Cambridge	1063
17C-01632	Ready salted potato crisps - 6 pack	Walkers	20 01 18	GBL 189 288 0797	British potatoes	Newmarket	319

Category 2 Potato crisp from potato dough and potato-based crackers – 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01582	Pringles original savoury snack	Pringles	08/12/18	L 7251035760 1307 P: 08/09/17 213 242 272	Belgium	Cambridge	25
17C-01583	Teddy shaped potato snack	Pom-bear	24 03 18	7263 T 90000 B	None declared	Cambridge	367
17C-01584	Original salted potato rings	Hula Hoops	20 01 2018	YHFW1B 7261	None declared	Cambridge	99
17C-01585	Soured cream & onion party bites	Asda	23 DEC 17	204 K 7 267	UK	Cambridge	762
17C-01586	Sea salt popped potato chips	Popchips	15/08/2018	17227D (2)	EU	Cambridge	864
17C-01587	Original pops	Walkers	06 01 18	GBS3R2238 8178	None declared	Cambridge	564

Category 3 Pre-cooked French fries, potato products for home cooking – March 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01457	Straight cut oven chips	Sainsbury's Be Good to Yourself	DEC 2018	B1 6340	Netherlands	Cambridge	243
17C-01458	Thin & crispy oven chips	Tesco	11/2017	C2 6 331	Netherlands	Congleton	29
17C-01459	Crispy French fries	McCain	07 2018	S 16012017 10	None declared	Congleton	43
17C-01460	Straight cut frying chips	Waitrose Essential	JUN2018	L6351 03 20	None declared	Newmarket	9
17C-01461	Chunky chips	Tesco Finest	None declared	L5 C	UK	Congleton	538
17C-01462	Crispy roast potatoes with goose fat	Sainsbury's Taste the Difference	None declared	BU4L6	UK	Cambridge	424
17C-01463	Steak cut chips - 3 way cook	Heritage	Jul 2018	0406210417:155	Netherlands	Cambridge	16
17C-01464	Homestyle chips	Aunt Bessie's	12/2018	C 6 6 352	None declared	Congleton	130
17C-01465	Straight cut chips	Asda	01/12/2017	E1 6 354	Netherlands	London	44
17C-01466	Crispy potatoes	Sainsbury's	JAN 2019	B 47025	Netherlands	Cambridge	105
17C-01467	Potato waffles - 10	Birds Eye	08 2018	L7038DL124	Not declared	Congleton	312
17C-01468	Roast potatoes	Asda	15 FEB 2018	EPM C7046 2	UK	London	53
17C-01469	Smiles	McCain	05 2018	W 10112016 01	Not declared	Newmarket	14
17C-01470	Quick chips	McCain	11 2017	P 22 02 2017	Not declared	Congleton	183
17C-01471	Ready baked jackets (4)	McCain	022018	W17022017	Not declared	Congleton	129

Category 3 Pre-cooked French fries, potato products for home cooking – November 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01633	Straight cut oven chips	Sainsbury's Be Good to Yourself	JUL 2019	B 3 7 204	Netherlands	Thetford	87
17C-01634	Thin & crispy oven chips	Tesco	SEP 2018	7244 4 TLL 500	UK	Newmarket	56
17C-01635	Crispy French fries	McCain	04 2019	P 15102017 11	British potatoes	Newmarket	131
17C-01636	Straight cut frying chips	Waitrose Essential	JAN2019	L7207 04 13	None declared	Newmarket	7
17C-01637	Chunky chips	Tesco Finest	None declared	L6 C	UK	Cambridge	167
17C-01638	Crispy roast potatoes with goose fat	Sainsbury's Taste the Difference	None declared	BU4 L6	UK	Cambridge	292
17C-01639	Organic straight cut oven chips	Waitrose Duchy Organic	OCT 2019	C7278 5	None declared	Newmarket	143
17C-01640	Homestyle chips	Aunt Bessie's	06/2019	C 37 159	None declared	Newmarket	192
17C-01641	Straight cut oven:fry chips	Asda	10/2018	B2 7 279	Netherlands	Cambridge	26
17C-01642	Crispy potatoes	Sainsbury's	SEP 2019	B 2 7 256	Netherlands	Cambridge	132
17C-01643	Potato waffles - 10	Birds Eye	04 2019	L7274AL124	None declared	Newmarket	229
17C-01644	Roast potatoes	Asda	25/09/2018	B1 7 270	Netherlands	Cambridge	30
17C-01645	Smiles	McCain	12 2018	W 23062017 02	None declared	Cambridge	83
17C-01646	Quick chips	McCain	07 2018	P 30 10 2017	British potatoes	Newmarket	204
17C-01647	Ready baked jackets (4)	McCain	10 2018	S08102017	None declared	Congleton	147

Category 4 Soft bread - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01376	Toastie thick sliced white bread	Warburtons	08 FEB	(2) 2 P ZS W E J B C 15	None declared	Newmarket	5
17C-01377	Medium petit pain 4s	Co-op	09/02/2017	None declared	None declared	Cambridge	8
17C-01378	White bloomer	Greggs	None declared	None declared	None declared	Newmarket	9
17C-01379	Tiger bloomer	Tesco Bakery	06 Feb	None declared	None declared	Newmarket	12
17C-01380	White finger roll - 6 pack	Tesco Bakery	7 Feb	None declared	None declared	Newmarket	3
17C-01381	Wholemeal sliced bread	Brace's	10 FEB	L 13 E 36	United Kingdom	Cardiff	21
17C-01382	Pan premium white bread	Brennans	25 FEB	D 23	None declared	Antrim	22
17C-01383	Plain white bread	Sunblest	26FEB	BE7 7 050 1800	Northern Ireland	Ballymena	30
17C-01384	Harvest Pride white premium sliced bread	Linwoods	25FEB	23 8C K3	None declared	Randalstown	7
17C-01385	Wholemeal sliced bread	Hovis Nimble	04/02/2017	X12 2 AZ	None declared	Cambridge	34
17C-01386	Soya & linseed bread	Burgen	04 FEB	ST04 7 0290125	UK	Cambridge	10
17C-01387	4 green olive ciabatta rolls	Marks & Spencer	03/02/2017	None declared	UK	Cambridge	55
17C-01388	Stoneground wholemeal medium sliced bread	Waitrose	09 FEB	FLBB12	None declared	Newmarket	18
17C-01389	Sunflower & barley bread	Vogel's	04 FEB	07	None declared	Cambridge	24
17C-01390	Thick sliced soft white bread	Hovis	10/02/2017	X35 B F A	None declared	Cambridge	13
17C-01391	Classic wholemeal batch baked bread	Allinson	11 FEB	WBD3 7 036 07 57	UK	Cambridge	47
17C-01392	Walnut cob	Sainsbury's Taste the Difference	24 Feb	Display until 23 Feb	UK	Cambridge	11
17C-01393	Thick sliced soft white bread	Roberts Bakery	07 FEB	FRS11 11V 032 4817R	None declared	Cambridge	13
17C-01394	Burger buns	Asda	02-02-17	None declared	None declared	Cambridge	14
17C-01395	Soft white loaf - medium	Kingsmill	12 FEB	ST04 7 0361639	UK	Cambridge	15
17C-01396	Brown bread with added wheat flakes - thick sliced	Hovis Granary	07/02/2017	HCS X72	None declared	Newmarket	96
17C-01397	Thick cut malted grain loaf	Morrisons Signature	09 FEB	RWF1 B E H 28	UK	Cambridge	19
17C-01398	Brown Bloomer - brown multigrain bread	Jackson's	09 02 17	E CZT EOB C	Yorkshire, England	Newmarket	63
17C-01399	Seeded five seeds batch bread	Warburtons	08 FEB	DJBC13 KMZSW	None declared	Newmarket	21
17C-01400	Organic sunflower seed bread with rye and sunflower seeds	Schneider Brot	03.06.2017	D11001533	Germany	Newmarket	8

Category 5 Breakfast cereals (excluding porridge) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01401	Honey multigrain flakes of wholegrain corn, spelt & barley	Rude Health	08 11 17	L 313 M	None declared	Cambridge	89
17C-01402	Organic whole wheat cereal biscuits	Weetabix Organic	04/01/2018	17004 2	None declared	Cambridge	114
17C-01403	Grape-nuts - wheat & malted barley cereal	Post	25AUG17	RGA 3	USA	Newmarket	77
17C-01404	Puffed wheat	The Good Grain Co.	AUG2017	20160906-1 P-1	None declared	Cambridge	710
17C-01405	Bran flakes	Tesco	10/2017	P4 B1 70200953	UK	Newmarket	344
17C-01406	Apricot wheats	Tesco	09/2017	L1 63500952	UK	Newmarket	33
17C-01407	Wholegrain bran flakes	Sainsbury's	25 JAN 2018	7025	UK	Cambridge	744
17C-01408	Cornflakes	Kellogg's	12 12 17	04 MC	None declared	Cambridge	38
17C-01409	Shreddies - whole wheat malted cereal	Nestlé	09/2017	63430952 L3	None declared	Cambridge	155
17C-01410	Puffed wheat	Honey Monster Puffs	OCT 2017	265	None declared	Cambridge	610
17C-01411	Whole wheat cereal biscuits	Morrisons	21/12/2017	6355 1	None declared	Cambridge	126
17C-01412	Frosted wheats - shredded wholewheat with sugar topping	Kellogg's	13 12 17	31 MC	None declared	Newmarket	65
17C-01413	Shredded wheat - wholegrain wheat cereal biscuits	Nestlé	10/2017	70170952 A	None declared	Newmarket	95
17C-01414	Wheat biscuits	Tesco Everyday Value	17/01/2018	4	UK	Newmarket	69
17C-01415	Golden puffs	Harvest Morn	09.12.2017	16350AEF	None declared	Cambridge	387
17C-01416	Malted wheaties	Asda	10/01/2018	7010 A	UK	Cambridge	97
17C-01417	Crunchy bran - high fibre cereal	Weetabix	16/01/2018	7016 9	None declared	Cambridge	255
17C-01418	Organic bran flakes	Tree of Life	31/10/17	59061 DD 2	Produce of UK	Cambridge	112
17C-01419	Bran flakes	Co-op	09/2017	63550953 P4 B1	UK using British wheat	Cambridge	425
17C-01420	Wholewheat biscuits	Waitrose Essential	12/01/2018	7012 1	None declared	Newmarket	179
17C-01421	Fig & cranberry granola	The Food Doctor	15 09 2017	6258	UK	Newmarket	89
17C-01422	3 seed granola	Marks & Spencer	06/2017	6340	UK	Cambridge	49

Category 6 Biscuits, crackers, crisp bread and similar (excluding pastry and cake) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01472	Cream crackers	Waitrose Essential	20 JAN 18	7 107 BB	None declared	Newmarket	88
17C-01473	Organic wholemeal digestive biscuits	Doves Farm	03 DEC 17	7095	Ingredients from more than one country. Baked in the UK	Newmarket	198
17C-01474	Dark rye crispbread	Ryvita	23-01-2018	4 7115	Dorset	Cambridge	147
17C-01475	Stem ginger biscuits	Fox's Crinkle Crunch	25 11 17	B S	None declared	Newmarket	637
17C-01476	Rich tea biscuits	Asda	21 OCT 17	7105 T1	UK	Cambridge	333
17C-01477	Crunchy ginger biscuits	McVitie's Ginger Nuts	09 09 17	C 7059 2	None declared	Newmarket	186
17C-01478	Salted savoury snack biscuits	TUC Original	28/10/17	7 089 1A	None declared	Newmarket	34
17C-01479	Ginger nuts biscuits	Tesco Everyday Value	28 10 17	C 7111 2	UK	Newmarket	183
17C-01480	Cream crackers	Morrisons	18 NOV 17	7 128 BB	UK	Cambridge	60
17C-01481	Extra wheatgerm crackers	Hovis	16 09 17	7003 C	None declared	Newmarket	470
17C-01482	High bake water biscuits	Sainsbury's	28 10 17	7107 C 1	UK	Cambridge	190
17C-01483	Wheat & rye crackers	Jacob's Krackawheat	04 NOV 17	T1 B	None declared	Cambridge	455
17C-01484	Malted milk biscuits	Marks & Spencer	22/11/2017	7082 G8	UK	Cambridge	231
17C-01485	Original thin sourdough rye crispbread	Finn Crisp	29 03 2018	Production date: 29 03 2017	Finland	Newmarket	80
17C-01486	Flatbreads - mixed seeds	Jacob's	14 10 17	7097 C 1	None declared	Cambridge	219
17C-01487	Shortbread fingers	Paterson's	APR 2018	L17109	None declared	Cambridge	74
17C-01488	Scandinavian bran crispbread	GG Slimming World	20112019	None declared	Norway	Newmarket	272
17C-01489	Cream crackers	Jacob's	03 02 18	7 118 BB	None declared	Cambridge	78
17C-01490	Butter crisps	Jules Destrooper	15/03/2018	SL235488	Belgium	Newmarket	127
17C-01491	Rough oatcakes	Nairn's	14 SEP 2017	1057	Scotland	Cambridge	189
17C-01492	30 mini gingerbread men bites	Asda	24/07/17	7 115	UK	Cambridge	50
17C-01493	Iced gingerbread Daisy flower	Image on Food Ltd	Jan 2018	L17/ 1592/ AM	UK	Newmarket	50
17C-01494	DIY gingerbread kit - 5 biscuits	Tesco	03/08/17	7 093	UK	Newmarket	39
17C-01495	Gingerbread friends	Marks & Spencer	13/09/2017	L 7 095 W151	UK	Cambridge	182
17C-01496	Biscuits with wholegrains - honey & live yoghurt filling	Belvita Breakfast Yogurt Crunch	28.07.2017	012	None declared	Cambridge	212
17C-01497	Yogurt Breaks - radiant raspberry	McVitie's Go Ahead	09 DEC 2017	LZ70321	None declared	Newmarket	59
17C-01498	Cranberry & raspberry breakfast biscuits	Marks & Spencer	09/08/2017	E	Scotland	Cambridge	275
17C-01499	Double fan wafers	Carousel	43496	L7005	UK	Cambridge	257
17C-01500	Fan wafers	Asda	JAN 18	7106 G11X	UK	Cambridge	206
17C-01501	Wafers	Askey's	DEC 18	7089 G10 X	UK	Cambridge	619

Category 7 Coffee and coffee substitutes - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01502	Coffee bags	Lyons	NOV 2018	7142	None declared	Cambridge	164
17C-01503	Italian espresso roasted & ground coffee	Waitrose	MAR 19	17082	Italy	Newmarket	160
17C-01504	Guatemala Arabica ground coffee	Percol	10.2018	L33 7101	Guatemala	Newmarket	110
17C-01505	Gajah mountain, Sumatra cafetiére grind coffee	Union Hand-Roasted Coffee	None declared	Hand roasted & hand packed 09 JUN 2017	Sumatra	London	138
17C-01506	Sumatra Mandheling roast & ground coffee	Tesco Finest	Apr 2018	7135 2	Indonesia Packed in the UK	Newmarket	143
17C-01507	Colombian Fairtrade coffee beans	Sainsbury's Taste the Difference	Apr 2018	7132 B3	Columbia Packed in the UK	Cambridge	126
17C-01508	Colombian ground coffee	Marks & Spencer	05/2018	7098 51	Colombia Packed in the UK	Cambridge	112
17C-01509	Monsoon Malabar coffee beans	Whittard of Chelsea	08.08.17	17137	None declared	Cambridge	94
17C-01510	Freeze dried soluble coffee	Nescafé Gold Blend	03 2019	70661092D	None declared	Newmarket	582
17C-01511	Freeze dried decaffeinated soluble coffee	Nescafé Gold Blend Decaff	03 2019	70721092E	None declared	Cambridge	490
17C-01512	Freeze dried instant coffee	Kenco Smooth	MAR-2019	L7076	None declared	Cambridge	641
17C-01513	Freeze dried decaffeinated instant coffee	Kenco Decaff	MAR-2019	L7090	None declared	Newmarket	551
17C-01514	Freeze dried instant coffee	L'OR Classic	07-03-2019	L7066	None declared	Cambridge	312
17C-01515	Freeze dried decaffeinated instant coffee	L'OR Décaféiné	04-04-2019	L7094	None declared	Cambridge	449
17C-01516	Chicory & coffee essence	Camp	21 04 19	L7111	UK	Cambridge	151
17C-01517	Dandelion coffee compound	Symingtons	FEB 2018	BN 120107	None declared	Cambridge	6
17C-01518	Organic cereal coffee	Lima Yannoh Instant	28.02.2019	L017015	Switzerland	Cambridge	794
17C-01519	Instant blend of cereal and guarana-coffee alternative	Whole Earth Wake Up	NOVEMBER 2018	L6308	Italy	Cambridge	237
17C-01520	Instant cereal drink	Barley Cup Original	04.11.2019	6445B	None declared	Cambridge	1897
17C-01521	Organic instant cereal drink	Biona Organic Biomalt	04.19	L6115A	None declared	Luton	343

Category 8 Baby foods, other than processed cereal based foods - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01522	Organic cottage pie	Hipp Organic	18/03/2018	V H - 0584	France	Newmarket	6
17C-01523	Organic carrot, sweet potato & swede	Boots Baby Organic	12/09/2017	G - 0986	France	Newmarket	4
17C-01524	Carrot & sweet potato mash	Heinz Mum's Own	07/2018	7024 0441 B	None declared	Cambridge	4
17C-01525	Organic parsnip, potato & turkey casserole	Hipp Organic	05/18	LA05798 DE P10/16 025229 025273 025336 004852	Germany	Cambridge	2
17C-01526	Cheesy tomato pasta stars	Heinz Mum's Own	08/2018	7046 0428 C	None declared	Cambridge	10
17C-01527	Organic carrots, apples & parsnips	Ella's Kitchen	06/18	1014708346 1014709276 1014710086 1014710136	EU	Cambridge	1
17C-01528	Organic veg with pasta & cheese	Boots Baby Organic	30/06/2018	J- 0982	France	Newmarket	5
17C-01529	Vegetable and chicken casserole puree	Heinz	14/03/18	V G - 7074 0570	EU	Cambridge	7
17C-01531	Organic mixed vegetable medley	Hipp Organic	08/18	LA12717 DE P02/17 031726 031765 031791 031829	Germany	Cambridge	9
17C-01532	Spaghetti bolognese	Heinz Little Kidz	27/04/2018	7118	EU	Cambridge	6
17C-01533	Spaghetti bolognese	Cow & Gate	28/07/2018	AT [4] 118	EU	Cambridge	51

Category 8 - 2017 samples, continued...

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01534	Organic alphabet pasta	Hipp Organic	28.01.18	LA14106	Austria	Cambridge	3
17C-01535	Organic tomato & leek pasta	Hipp Organic	14/03/2018	V G- 0589	France	Cambridge	3
17C-01536	Organic vegetable + lentil bake	Ella's Kitchen	06/2018	03 G-7125 0561	EU	Cambridge	5
17C-01537	Creamed carrot & potato	Cow & Gate	12.04.2019	106975/ C/08989.02/	EU	Cambridge	20
17C-01538	Carrot and lamb hotpot	Cow & Gate	19.04.2019	106966/ C/08480.05/	EU	Cambridge	11
17C-01539	Organic beef stew with spuds	Ella's Kitchen	FEB 2018	L7135 B3 LB FR27679115CE	EU	Cambridge	7
17C-01540	Creamed cottage pie	Cow & Gate	16.03.2019	107019 C/09190.04/	EU	Newmarket	4
17C-01541	Succulent pork casserole	Cow & Gate	05.04.2019	106929 C/08990.05	EU	Cambridge	15
17C-01542	Organic swede, parsnip, carrot & quinoa	Quinoa Mothergrain	31 01 2018	1	UK	Lewes	3
17C-01543	Organic butternut squash, carrots, apples & prunes	Ella's Kitchen	05/18	1009419202 1009419382 1109419362 1209419232	EU	Cambridge	8
17C-01544	Organic prunes	Ella's Kitchen	05/18	111716234 111716244 111716254 111717314 211717204 211717314 211717374	EU	Cambridge	14

Category 9 Processed cereal-based foods for infants and young children - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01546	My first muesli - cereal with raisins, mixed fruit & hazelnuts	Cow & Gate	13 08 2018	HF	EU	Cambridge	3
17C-01547	Organic baby rice	Aptamil	29/08/2018	L0022321567 000011606 000011613 000011620 000011628 000011636	EU	Cambridge	2
17C-01548	Creamy oat porridge	Heinz	1ST NOV 2018	L17144KCAX2	England	Cambridge	3
17C-01549	Baby rice	Cow & Gate	15.03.19	None declared	EU	Cambridge	4
17C-01550	Multigrain banana porridge	Cow & Gate	30.04.19	None declared	EU	Cambridge	11
17C-01551	Rusks - original	Farley's	01 12 2018	7 178	England	Cambridge	30
17C-01552	Organic fruit & porridge	Boots Baby Organic	01.05.18	L187	Switzerland	Cambridge	6
17C-01553	Organic creamy porridge	Hipp Organic	31.07.2018	6004828 167 A	Croatia	Newmarket	4
17C-01554	Organic baby rice	Hipp Organic	30.11.2018	6005292 211 B	Croatia	Newmarket	2
17C-01555	Organic banana & plum porridge	Organix	10.08.2018	GF PROD. DATE: 10.06.2017	Austria	Cambridge	12
17C-01556	Organic raisin & oat cookies	Ella's Kitchen	29 12 2017	7181 SB	EU	Newmarket	28
17C-01557	Chocolate biscotti	Heinz Snack	31/08/2018	7140 1A	Italy	Cambridge	48
17C-01558	Organic apple rice cakes	Organix Finger Foods	23/03/2018	H 17081 B	Belgium	Cambridge	56
17C-01559	Organic farm animal biscuits	Organix Goodies	06.06.2018	L 157 C	Germany	Cambridge	27
17C-01560	Organic vanilla baby biscuits	Organix Finger Foods	03.04.2018	L184 A	Germany	Newmarket	29
17C-01561	Organic gingerbread men biscuits	Organix Goodies	14.06.2018	L165 A	Germany	Cambridge	58
17C-01562	Multigrain fruit muesli	Aptamil	27.08.18	QF	EU	Cambridge	5
17C-01563	Banana & cinnamon muesli	Ella's Kitchen	MAY 2018	13617	EU	Cambridge	10
17C-01564	Apple flavour fruity bakes	Annabel Karmel	01-04-18	DK WO	Netherlands	Cambridge	6
17C-01565	Sunrise banana porridge	Heinz	1ST NOV 2018	L17138KCA01	England	Cambridge	5
17C-01566	Organic apple and orange soft oaty bars	Organix Goodies	27/01/2018	4/152	Switzerland	Cambridge	3

Category 10 Other products, based on cereals, potatoes, cocoa and coffee - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01567	Jamaica ginger cake	McVitie's	24 NOV 17	F2	UK	Cambridge	131
17C-01568	Ginger loaf cake	Sainsbury's	23 SEP 2017	None declared	UK	Cambridge	64
17C-01569	Sticky ginger loaf	Marks & Spencer	19/09/2017	J11	UK	Cambridge	142
17C-01570	Ginger parkin	Elisabeth Botham's	01 FEB 2018	0244	None declared	Whitby	186
17C-01571	All-butter pastry cases	Asda Extra Special	02/AUGU/2018	AST215	UK	Cambridge	4
17C-01572	All butter sweet pastry tartlets	Marks & Spencer	13/03/2018	2017278073	France	Cambridge	39
17C-01573	Cool original flavour corn chips	Doritos	09 12 17	GBC 110 220C 7241	None declared	Cambridge	160
17C-01574	Lightly salted tortilla chips	Tesco Everyday Value	23 DEC 17	7226 B1 C	UK	Cambridge	40
17C-01575	Sweet microwave popcorn	Butterkist	07 2018	LW 7 192	None declared	Cambridge	161
17C-01576	Sweet microwave popcorn	Eazy Pop	JUL 2018	170228	EU	Wembley	124
17C-01577	Crunchy cereal bars - oats & honey	Nature Valley	19/07/2018	LB 2503644234	Spain	Cambridge	251
17C-01588	Wholegrain oat cereal bar - raisins and hazelnuts	Jordans Frusli	13 05 18	7256/4	UK	Cambridge	6
17C-01589	Organic cocoa	Green & Black's Organic	JUL 2019	L7207	None declared	Cambridge	223
17C-01590	Bournville cocoa	Cadbury	01 09 2019	OCI0273551	None declared	Cambridge	326
17C-01591	Pure dark chocolate powder - West African 70% cocoa solids	Mortimer Chocolate Company	FEB 2019	7228	West Africa, made in the UK	Mortimer Common	17
17C-01592	70% dark chocolate	Divine	11.2018	L27015 b	Made in Germany using Ghanaian cocoa	Newmarket	131
17C-01648	Baked potato	Tesco Café	None declared	None declared	None declared	Cambridge	246

Category 11 Other products, not based on cereals, potatoes, cocoa and coffee - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Acrylamide (µg/kg)
17C-01578	Veg crisps	Tyrrell's	10 12 17	17220	England	Newmarket	718
17C-01579	Sweet potato, parsnip and beetroot vegetable crisps	Marks & Spencer	21/11/17	17 223	UK	Cambridge	1255
17C-01580	Vegetable crisps	Waitrose	30 OCT 17	7 205 1	None declared	Newmarket	521
17C-01581	Lightly salted veg chips - parsnip, sweet potato & beetroot	Kettle Vegetable Chips	10-12-2017	B 198 022152	Netherlands	Newmarket	728
17C-01593	Prunes in syrup	Tesco	AUG 2019	7236 L - PRY V12 12.8	UK	Newmarket	352 ^a
17C-01594	Pitted prunes in fruit juice	Sainsbury's	AUG 2019	7237 04 DAS V9	UK	Cambridge	97 ^a
17C-01595	Pitted black olives in brine	Tesco	JUL2019	7192	Spain	Cambridge	740 ^a
17C-01596	Pitted black olives in brine	Crespo	18/04/2020	L70257 II 032652 032696 032697	Spain	Cambridge	140 ^a
17C-01597	Organic partially rehydrated prunes	Waitrose LoveLife	AUG 2018	L7213H170	France	Newmarket	38
17C-01598	Blocked stoned dates	Whitworths	DEC 2018	L7 229 B	Produce of more than one country Packed in the UK	Cambridge	13
17C-01599	Natural original liquorice	Panda	110918	120617	Finland	Cambridge	271
17C-01600	Pontefract cakes soft liquorice	Haribo	10/2018	L441-20117 -01 010 01 1117	None declared	Cambridge	132

^a drained weight basis

6.4.2 Furan

Category 5 Breakfast cereals (excluding porridge) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan ($\mu\text{g}/\text{kg}$)	
							As received	As consumed
17C-01401	Honey multigrain flakes of wholegrain corn, spelt & barley	Rude Health	08 11 17	L 313 M	None declared	Cambridge	10	N/A
17C-01402	Organic whole wheat cereal biscuits	Weetabix Organic	04/01/2018	17004 2	None declared	Cambridge	<10	N/A
17C-01403	Grape-nuts - wheat & malted barley cereal	Post	25AUG17	RGA 3	USA	Newmarket	31	N/A
17C-01404	Puffed wheat	The Good Grain Co.	AUG2017	20160906-1 P-1	None declared	Cambridge	108	N/A
17C-01405	Bran flakes	Tesco	10/2017	P4 B1 70200953	UK	Newmarket	30	N/A
17C-01406	Apricot wheats	Tesco	09/2017	L1 63500952	UK	Newmarket	<10	N/A
17C-01407	Wholegrain bran flakes	Sainsbury's	25 JAN 2018	7025	UK	Cambridge	53	N/A
17C-01408	Cornflakes	Kellogg's	12 12 17	04 MC	None declared	Cambridge	18	N/A
17C-01409	Shreddies - whole wheat malted cereal	Nestlé	09/2017	63430952 L3	None declared	Cambridge	17	N/A
17C-01410	Puffed wheat	Honey Monster Puffs	OCT 2017	265	None declared	Cambridge	98	N/A
17C-01411	Whole wheat cereal biscuits	Morrisons	21/12/2017	6355 1	None declared	Cambridge	19	N/A
17C-01412	Frosted wheats - shredded wholewheat with sugar topping	Kellogg's	13 12 17	31 MC	None declared	Newmarket	<10	N/A
17C-01413	Shredded wheat - wholegrain wheat cereal biscuits	Nestlé	10/2017	70170952 A	None declared	Newmarket	<10	N/A
17C-01414	Wheat biscuits	Tesco Everyday Value	17/01/2018	4	UK	Newmarket	11	N/A
17C-01415	Golden puffs	Harvest Morn	09.12.2017	16350AEF	None declared	Cambridge	116	N/A
17C-01416	Malted wheaties	Asda	10/01/2018	7010 A	UK	Cambridge	<10	N/A
17C-01417	Crunchy bran - high fibre cereal	Weetabix	16/01/2018	7016 9	None declared	Cambridge	54	N/A
17C-01418	Organic bran flakes	Tree of Life	31/10/17	59061 DD 2	Produce of UK	Cambridge	<10	N/A
17C-01419	Bran flakes	Co-op	09/2017	63550953 P4 B1	UK using British wheat	Cambridge	29	N/A
17C-01420	Wholewheat biscuits	Waitrose Essential	12/01/2018	7012 1	None declared	Newmarket	15	N/A

Category 5 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01421	Fig & cranberry granola	The Food Doctor	15 09 2017	6258	UK	Newmarket	<10	N/A
17C-01422	3 seed granola	Marks & Spencer	06/2017	6340	UK	Cambridge	<10	N/A
17C-01423	Rice krispies	Kellogg's	16 12 17	33 MC	None declared	Newmarket	<10	N/A
17C-01424	Rice snaps	Tesco	10/2017	70060953	UK	Newmarket	<10	N/A

Category 6 Biscuits, crackers, crisp bread and similar (excluding pastry and cake) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01472	Cream crackers	Waitrose Essential	20 JAN 18	7 107 BB	None declared	Newmarket	44	N/A
17C-01473	Organic wholemeal digestive biscuits	Doves Farm	03 DEC 17	7095	Ingredients from more than one country. Baked in the UK	Newmarket	13	N/A
17C-01474	Dark rye crispbread	Ryvita	23-01-2018	4 7115	Dorset	Cambridge	108	N/A
17C-01475	Stem ginger biscuits	Fox's Crinkle Crunch	25 11 17	B S	None declared	Newmarket	<10	N/A
17C-01476	Rich tea biscuits	Asda	21 OCT 17	7105 T1	UK	Cambridge	17	N/A
17C-01477	Crunchy ginger biscuits	McVitie's Ginger Nuts	09 09 17	C 7059 2	None declared	Newmarket	37	N/A
17C-01478	Salted savoury snack biscuits	TUC Original	28/10/17	7 089 1A	None declared	Newmarket	26	N/A
17C-01479	Ginger nuts biscuits	Tesco Everyday Value	28 10 17	C 7111 2	UK	Newmarket	48	N/A
17C-01480	Cream crackers	Morrisons	18 NOV 17	7 128 BB	UK	Cambridge	41	N/A
17C-01481	Extra wheatgerm crackers	Hovis	16 09 17	7003 C	None declared	Newmarket	17	N/A
17C-01482	High bake water biscuits	Sainsbury's	28 10 17	7107 C 1	UK	Cambridge	59	N/A
17C-01483	Wheat & rye crackers	Jacob's Krackawheat	04 NOV 17	T1 B	None declared	Cambridge	85	N/A
17C-01484	Malted milk biscuits	Marks & Spencer	22/11/2017	7082 G8	UK	Cambridge	<10	N/A
17C-01485	Original thin sourdough rye crispbread	Finn Crisp	29 03 2018	Production date: 29 03 2017	Finland	Newmarket	56	N/A
17C-01486	Flatbreads - mixed seeds	Jacob's	14 10 17	7097 C 1	None declared	Cambridge	83	N/A
17C-01487	Shortbread fingers	Paterson's	APR 2018	L17109	None declared	Cambridge	<10	N/A
17C-01488	Scandinavian bran crispbread	GG Slimming World	20112019	None declared	Norway	Newmarket	94	N/A

Category 6 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01489	Cream crackers	Jacob's	03 02 18	7 118 BB	None declared	Cambridge	66	N/A
17C-01490	Butter crisps	Jules Destrooper	15/03/2018	SL235488	Belgium	Newmarket	<10	N/A
17C-01491	Rough oatcakes	Nairn's	14 SEP 2017	1057	Scotland	Cambridge	37	N/A
17C-01492	30 mini gingerbread men bites	Asda	24/07/17	7 115	UK	Cambridge	<10	N/A
17C-01493	Iced gingerbread Daisy flower	Image on Food Ltd	Jan 2018	L17/ 1592/ AM	UK	Newmarket	<10	N/A
17C-01494	DIY gingerbread kit - 5 biscuits	Tesco	03/08/17	7 093	UK	Newmarket	<10	N/A
17C-01495	Gingerbread friends	Marks & Spencer	13/09/2017	L 7 095 W151	UK	Cambridge	<10	N/A
17C-01496	Biscuits with wholegrains - honey & live yoghurt filling	Belvita Breakfast Yogurt Crunch	28.07.2017	012	None declared	Cambridge	13	N/A
17C-01497	Yogurt Breaks - radiant raspberry	McVitie's Go Ahead	09 DEC 2017	LZ70321	None declared	Newmarket	<10	N/A
17C-01498	Cranberry & raspberry breakfast biscuits	Marks & Spencer	09/08/2017	E	Scotland	Cambridge	<10	N/A
17C-01499	Double fan wafers	Carousel	43496	L7005	UK	Cambridge	25	N/A
17C-01500	Fan wafers	Asda	JAN 18	7106 G11X	UK	Cambridge	<10	N/A
17C-01501	Wafers	Askey's	DEC 18	7089 G10 X	UK	Cambridge	49	N/A

Category 7 Coffee and coffee substitutes - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01502	Coffee bags	Lyons	NOV 2018	7142	None declared	Cambridge	3169	37
17C-01503	Italian espresso roasted & ground coffee	Waitrose	MAR 19	17082	Italy	Newmarket	3405	22
17C-01504	Guatemala Arabica ground coffee	Percol	10.2018	L33 7101	Guatemala	Newmarket	1564	60
17C-01505	Gajah mountain, Sumatra cafetiere grind coffee	Union Hand-Roasted Coffee	None declared	Hand roasted & hand packed 09 JUN 2017	Sumatra	London	2807	92

Category 7 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01506	Sumatra Mandheling roast & ground coffee	Tesco Finest	Apr 2018	7135 2	Indonesia Packed in the UK	Newmarket	2925	89
17C-01507	Colombian Fairtrade coffee beans	Sainsbury's Taste the Difference	Apr 2018	7132 B3	Columbia Packed in the UK	Cambridge	3564	109
17C-01508	Colombian ground coffee	Marks & Spencer	05/2018	7098 51	Colombia Packed in the UK	Cambridge	3348	119
17C-01509	Monsoon Malabar coffee beans	Whittard of Chelsea	08.08.17	17137	None declared	Cambridge	4498	179
17C-01510	Freeze dried soluble coffee	Nescafé Gold Blend	03 2019	70661092D	None declared	Newmarket	592	4
17C-01511	Freeze dried decaffeinated soluble coffee	Nescafé Gold Blend Decaff	03 2019	70721092E	None declared	Cambridge	550	4
17C-01512	Freeze dried instant coffee	Kenco Smooth	MAR-2019	L7076	None declared	Cambridge	147	1
17C-01513	Freeze dried decaffeinated instant coffee	Kenco Decaff	MAR-2019	L7090	None declared	Newmarket	533	3
17C-01514	Freeze dried instant coffee	L'OR Classic	07-03-2019	L7066	None declared	Cambridge	462	3
17C-01515	Freeze dried decaffeinated instant coffee	L'OR Décaféiné	04-04-2019	L7094	None declared	Cambridge	350	2
17C-01516	Chicory & coffee essence	Camp	21 04 19	L7111	UK	Cambridge	<20	<1
17C-01517	Dandelion coffee compound	Symingtons	FEB 2018	BN 120107	None declared	Cambridge	<20	<1
17C-01518	Organic cereal coffee	Lima Yannoh Instant	28.02.2019	L017015	Switzerland	Cambridge	114	1
17C-01519	Instant blend of cereal and guarana-coffee alternative	Whole Earth Wake Up	NOVEMBER 2018	L6308	Italy	Cambridge	486	5
17C-01520	Instant cereal drink	Barley Cup Original	04.11.2019	6445B	None declared	Cambridge	33	<1
17C-01521	Organic instant cereal drink	Biona Organic Biomalt	04.19	L6115A	None declared	Luton	67	<1

Category 8 Baby foods, other than processed cereal based foods - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01522	Organic cottage pie	Hipp Organic	18/03/2018	V H - 0584	France	Newmarket	32	N/A
17C-01523	Organic carrot, sweet potato & swede	Boots Baby Organic	12/09/2017	G - 0986	France	Newmarket	33	N/A
17C-01524	Carrot & sweet potato mash	Heinz Mum's Own	07/2018	7024 0441 B	None declared	Cambridge	22	N/A
17C-01525	Organic parsnip, potato & turkey casserole	Hipp Organic	05/18	LA05798 DE P10/16 025229 025273 025336 004852	Germany	Cambridge	15	N/A
17C-01526	Cheesy tomato pasta stars	Heinz Mum's Own	08/2018	7046 0428 C	None declared	Cambridge	24	N/A
17C-01527	Organic carrots, apples & parsnips	Ella's Kitchen	06/18	1014708346 1014709276 1014710086 1014710136	EU	Cambridge	3	N/A
17C-01528	Organic veg with pasta & cheese	Boots Baby Organic	30/06/2018	J- 0982	France	Newmarket	42	N/A
17C-01529	Vegetable and chicken casserole puree	Heinz	14/03/18	V G - 7074 0570	EU	Cambridge	98	N/A
17C-01531	Organic mixed vegetable medley	Hipp Organic	08/18	LA12717 DE P02/17 031726 031765 031791 031829	Germany	Cambridge	40	N/A
17C-01532	Spaghetti bolognese	Heinz Little Kidz	27/04/2018	7118	EU	Cambridge	44	N/A
17C-01533	Spaghetti bolognese	Cow & Gate	28/07/2018	AT [4] 118	EU	Cambridge	41	N/A

Category 8 - 2017 samples, continued...

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01534	Organic alphabet pasta	Hipp Organic	28.01.18	LA14106	Austria	Cambridge	14	N/A
17C-01535	Organic tomato & leek pasta	Hipp Organic	14/03/2018	V G- 0589	France	Cambridge	15	N/A
17C-01536	Organic vegetable + lentil bake	Ella's Kitchen	06/2018	03 G-7125 0561	EU	Cambridge	36	N/A
17C-01537	Creamed carrot & potato	Cow & Gate	12.04.2019	106975/ C/08989.02/	EU	Cambridge	<2	N/A
17C-01538	Carrot and lamb hotpot	Cow & Gate	19.04.2019	106966/ C/08480.05/	EU	Cambridge	<2	N/A
17C-01539	Organic beef stew with spuds	Ella's Kitchen	FEB 2018	L7135 B3 LB FR27679115CE	EU	Cambridge	<2	N/A
17C-01540	Creamed cottage pie	Cow & Gate	16.03.2019	107019 C/09190.04/	EU	Newmarket	17	N/A
17C-01541	Succulent pork casserole	Cow & Gate	05.04.2019	106929 C/08990.05	EU	Cambridge	11	N/A
17C-01542	Organic swede, parsnip, carrot & quinoa	Quinoa Mothergrain	31 01 2018	1	UK	Lewes	10	N/A
17C-01543	Organic butternut squash, carrots, apples & prunes	Ella's Kitchen	05/18	1009419202 1009419382 1109419362 1209419232	EU	Cambridge	<2	N/A
17C-01544	Organic prunes	Ella's Kitchen	05/18	111716234 111716244 111716254 111717314 211717204 211717314 211717374	EU	Cambridge	3	N/A

Category 10 Other products, based on cereals, potatoes, cocoa and coffee - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01575	Sweet microwave popcorn	Butterkist	07 2018	LW 7 192	None declared	Cambridge	N/A	31
17C-01576	Sweet microwave popcorn	Eazy Pop	JUL 2018	170228	EU	Wembley	N/A	36

Category 11 Other products, not based on cereals, potatoes, cocoa and coffee - 2011 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	Furan (µg/kg)	
							As received	As consumed
17C-01593	Prunes in syrup	Tesco	AUG 2019	7236 L - PRY V12 12.8	UK	Newmarket	15	N/A
17C-01594	Pitted prunes in fruit juice	Sainsbury's	AUG 2019	7237 04 DAS V9	UK	Cambridge	9	N/A

6.4.3 2-methyl furan

Category 5 Breakfast cereals (excluding porridge) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan ($\mu\text{g}/\text{kg}$)	
							As received	As consumed
17C-01401	Honey multigrain flakes of wholegrain corn, spelt & barley	Rude Health	08 11 17	L 313 M	None declared	Cambridge	<10	N/A
17C-01402	Organic whole wheat cereal biscuits	Weetabix Organic	04/01/2018	17004 2	None declared	Cambridge	<10	N/A
17C-01403	Grape-nuts - wheat & malted barley cereal	Post	25AUG17	RGA 3	USA	Newmarket	15	N/A
17C-01404	Puffed wheat	The Good Grain Co.	AUG2017	20160906-1 P-1	None declared	Cambridge	51	N/A
17C-01405	Bran flakes	Tesco	10/2017	P4 B1 70200953	UK	Newmarket	12	N/A
17C-01406	Apricot wheats	Tesco	09/2017	L1 63500952	UK	Newmarket	<10	N/A
17C-01407	Wholegrain bran flakes	Sainsbury's	25 JAN 2018	7025	UK	Cambridge	37	N/A
17C-01408	Cornflakes	Kellogg's	12 12 17	04 MC	None declared	Cambridge	<10	N/A
17C-01409	Shreddies - whole wheat malted cereal	Nestlé	09/2017	63430952 L3	None declared	Cambridge	<10	N/A
17C-01410	Puffed wheat	Honey Monster Puffs	OCT 2017	265	None declared	Cambridge	58	N/A
17C-01411	Whole wheat cereal biscuits	Morrisons	21/12/2017	6355 1	None declared	Cambridge	11	N/A
17C-01412	Frosted wheats - shredded wholewheat with sugar topping	Kellogg's	13 12 17	31 MC	None declared	Newmarket	<10	N/A
17C-01413	Shredded wheat - wholegrain wheat cereal biscuits	Nestlé	10/2017	70170952 A	None declared	Newmarket	<10	N/A
17C-01414	Wheat biscuits	Tesco Everyday Value	17/01/2018	4	UK	Newmarket	<10	N/A
17C-01415	Golden puffs	Harvest Morn	09.12.2017	16350AEF	None declared	Cambridge	69	N/A
17C-01416	Malted wheaties	Asda	10/01/2018	7010 A	UK	Cambridge	<10	N/A
17C-01417	Crunchy bran - high fibre cereal	Weetabix	16/01/2018	7016 9	None declared	Cambridge	16	N/A
17C-01418	Organic bran flakes	Tree of Life	31/10/17	59061 DD 2	Produce of UK	Cambridge	<10	N/A
17C-01419	Bran flakes	Co-op	09/2017	63550953 P4 B1	UK using British wheat	Cambridge	11	N/A
17C-01420	Wholewheat biscuits	Waitrose Essential	12/01/2018	7012 1	None declared	Newmarket	11	N/A

Category 5 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01421	Fig & cranberry granola	The Food Doctor	15 09 2017	6258	UK	Newmarket	<10	N/A
17C-01422	3 seed granola	Marks & Spencer	06/2017	6340	UK	Cambridge	<10	N/A
17C-01423	Rice krispies	Kellogg's	16 12 17	33 MC	None declared	Newmarket	<10	N/A
17C-01424	Rice snaps	Tesco	10/2017	70060953	UK	Newmarket	<10	N/A

Category 6 Biscuits, crackers, crisp bread and similar (excluding pastry and cake) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01472	Cream crackers	Waitrose Essential	20 JAN 18	7 107 BB	None declared	Newmarket	40	N/A
17C-01473	Organic wholemeal digestive biscuits	Doves Farm	03 DEC 17	7095	Ingredients from more than one country. Baked in the UK	Newmarket	17	N/A
17C-01474	Dark rye crispbread	Ryvita	23-01-2018	4 7115	Dorset	Cambridge	95	N/A
17C-01475	Stem ginger biscuits	Fox's Crinkle Crunch	25 11 17	B S	None declared	Newmarket	<10	N/A
17C-01476	Rich tea biscuits	Asda	21 OCT 17	7105 T1	UK	Cambridge	29	N/A
17C-01477	Crunchy ginger biscuits	McVitie's Ginger Nuts	09 09 17	C 7059 2	None declared	Newmarket	102	N/A
17C-01478	Salted savoury snack biscuits	TUC Original	28/10/17	7 089 1A	None declared	Newmarket	10	N/A
17C-01479	Ginger nuts biscuits	Tesco Everyday Value	28 10 17	C 7111 2	UK	Newmarket	136	N/A
17C-01480	Cream crackers	Morrisons	18 NOV 17	7 128 BB	UK	Cambridge	31	N/A
17C-01481	Extra wheatgerm crackers	Hovis	16 09 17	7003 C	None declared	Newmarket	<10	N/A
17C-01482	High bake water biscuits	Sainsbury's	28 10 17	7107 C 1	UK	Cambridge	34	N/A
17C-01483	Wheat & rye crackers	Jacob's Krackawheat	04 NOV 17	T1 B	None declared	Cambridge	68	N/A
17C-01484	Malted milk biscuits	Marks & Spencer	22/11/2017	7082 G8	UK	Cambridge	<10	N/A
17C-01485	Original thin sourdough rye crispbread	Finn Crisp	29 03 2018	Production date: 29 03 2017	Finland	Newmarket	38	N/A
17C-01486	Flatbreads - mixed seeds	Jacob's	14 10 17	7097 C 1	None declared	Cambridge	69	N/A
17C-01487	Shortbread fingers	Paterson's	APR 2018	L17109	None declared	Cambridge	<10	N/A
17C-01488	Scandinavian bran crispbread	GG Slimming World	20112019	None declared	Norway	Newmarket	76	N/A

Category 6 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01489	Cream crackers	Jacob's	03 02 18	7 118 BB	None declared	Cambridge	60	N/A
17C-01490	Butter crisps	Jules Destrooper	15/03/2018	SL235488	Belgium	Newmarket	<10	N/A
17C-01491	Rough oatcakes	Nairn's	14 SEP 2017	1057	Scotland	Cambridge	25	N/A
17C-01492	30 mini gingerbread men bites	Asda	24/07/17	7 115	UK	Cambridge	<10	N/A
17C-01493	Iced gingerbread Daisy flower	Image on Food Ltd	Jan 2018	L17/ 1592/ AM	UK	Newmarket	<10	N/A
17C-01494	DIY gingerbread kit - 5 biscuits	Tesco	03/08/17	7 093	UK	Newmarket	<10	N/A
17C-01495	Gingerbread friends	Marks & Spencer	13/09/2017	L 7 095 W151	UK	Cambridge	14	N/A
17C-01496	Biscuits with wholegrains - honey & live yoghurt filling	Belvita Breakfast Yogurt Crunch	28.07.2017	012	None declared	Cambridge	<10	N/A
17C-01497	Yogurt Breaks - radiant raspberry	McVitie's Go Ahead	09 DEC 2017	LZ70321	None declared	Newmarket	<10	N/A
17C-01498	Cranberry & raspberry breakfast biscuits	Marks & Spencer	09/08/2017	E	Scotland	Cambridge	<10	N/A
17C-01499	Double fan wafers	Carousel	43496	L7005	UK	Cambridge	14	N/A
17C-01500	Fan wafers	Asda	JAN 18	7106 G11X	UK	Cambridge	<10	N/A
17C-01501	Wafers	Askey's	DEC 18	7089 G10 X	UK	Cambridge	47	N/A

Category 7 Coffee and coffee substitutes - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01502	Coffee bags	Lyons	NOV 2018	7142	None declared	Cambridge	10289	89
17C-01503	Italian espresso roasted & ground coffee	Waitrose	MAR 19	17082	Italy	Newmarket	12330	66
17C-01504	Guatemala Arabica ground coffee	Percol	10.2018	L33 7101	Guatemala	Newmarket	4477	123
17C-01505	Gajah mountain, Sumatra cafetiere grind coffee	Union Hand-Roasted Coffee	None declared	Hand roasted & hand packed 09 JUN 2017	Sumatra	London	7126	169

Category 7 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01506	Sumatra Mandheling roast & ground coffee	Tesco Finest	Apr 2018	7135 2	Indonesia Packed in the UK	Newmarket	11054	211
17C-01507	Colombian Fairtrade coffee beans	Sainsbury's Taste the Difference	Apr 2018	7132 B3	Columbia Packed in the UK	Cambridge	12002	246
17C-01508	Colombian ground coffee	Marks & Spencer	05/2018	7098 51	Colombia Packed in the UK	Cambridge	11534	261
17C-01509	Monsoon Malabar coffee beans	Whittard of Chelsea	08.08.17	17137	None declared	Cambridge	17639	582
17C-01510	Freeze dried soluble coffee	Nescafé Gold Blend	03 2019	70661092D	None declared	Newmarket	2642	16
17C-01511	Freeze dried decaffeinated soluble coffee	Nescafé Gold Blend Decaff	03 2019	70721092E	None declared	Cambridge	2019	14
17C-01512	Freeze dried instant coffee	Kenco Smooth	MAR-2019	L7076	None declared	Cambridge	421	3
17C-01513	Freeze dried decaffeinated instant coffee	Kenco Decaff	MAR-2019	L7090	None declared	Newmarket	1489	10
17C-01514	Freeze dried instant coffee	L'OR Classic	07-03-2019	L7066	None declared	Cambridge	1296	9
17C-01515	Freeze dried decaffeinated instant coffee	L'OR Décaféiné	04-04-2019	L7094	None declared	Cambridge	1424	10
17C-01516	Chicory & coffee essence	Camp	21 04 19	L7111	UK	Cambridge	<40	<1
17C-01517	Dandelion coffee compound	Symingtons	FEB 2018	BN 120107	None declared	Cambridge	<40	<1
17C-01518	Organic cereal coffee	Lima Yannoh Instant	28.02.2019	L017015	Switzerland	Cambridge	185	2
17C-01519	Instant blend of cereal and guarana-coffee alternative	Whole Earth Wake Up	NOVEMBER 2018	L6308	Italy	Cambridge	599	6
17C-01520	Instant cereal drink	Barley Cup Original	04.11.2019	6445B	None declared	Cambridge	<40	<1
17C-01521	Organic instant cereal drink	Biona Organic Biomalt	04.19	L6115A	None declared	Luton	74	<1

Category 8 Baby foods, other than processed cereal based foods - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01522	Organic cottage pie	Hipp Organic	18/03/2018	V H - 0584	France	Newmarket	<2	N/A
17C-01523	Organic carrot, sweet potato & swede	Boots Baby Organic	12/09/2017	G - 0986	France	Newmarket	4	N/A
17C-01524	Carrot & sweet potato mash	Heinz Mum's Own	07/2018	7024 0441 B	None declared	Cambridge	<2	N/A
17C-01525	Organic parsnip, potato & turkey casserole	Hipp Organic	05/18	LA05798 DE P10/16 025229 025273 025336 004852	Germany	Cambridge	<2	N/A
17C-01526	Cheesy tomato pasta stars	Heinz Mum's Own	08/2018	7046 0428 C	None declared	Cambridge	<2	N/A
17C-01527	Organic carrots, apples & parsnips	Ella's Kitchen	06/18	1014708346 1014709276 1014710086 1014710136	EU	Cambridge	<2	N/A
17C-01528	Organic veg with pasta & cheese	Boots Baby Organic	30/06/2018	J- 0982	France	Newmarket	4	N/A
17C-01529	Vegetable and chicken casserole puree	Heinz	14/03/18	V G - 7074 0570	EU	Cambridge	3	N/A
17C-01531	Organic mixed vegetable medley	Hipp Organic	08/18	LA12717 DE P02/17 031726 031765 031791 031829	Germany	Cambridge	3	N/A
17C-01532	Spaghetti bolognese	Heinz Little Kidz	27/04/2018	7118	EU	Cambridge	3	N/A
17C-01533	Spaghetti bolognese	Cow & Gate	28/07/2018	AT [4] 118	EU	Cambridge	5	N/A

Category 8 - 2017 samples, continued...

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01534	Organic alphabet pasta	Hipp Organic	28.01.18	LA14106	Austria	Cambridge	<2	N/A
17C-01535	Organic tomato & leek pasta	Hipp Organic	14/03/2018	V G- 0589	France	Cambridge	<2	N/A
17C-01536	Organic vegetable + lentil bake	Ella's Kitchen	06/2018	03 G-7125 0561	EU	Cambridge	6	N/A
17C-01537	Creamed carrot & potato	Cow & Gate	12.04.2019	106975/ C/08989.02/	EU	Cambridge	<2	N/A
17C-01538	Carrot and lamb hotpot	Cow & Gate	19.04.2019	106966/ C/08480.05/	EU	Cambridge	<2	N/A
17C-01539	Organic beef stew with spuds	Ella's Kitchen	FEB 2018	L7135 B3 LB FR27679115CE	EU	Cambridge	<2	N/A
17C-01540	Creamed cottage pie	Cow & Gate	16.03.2019	107019 C/09190.04/	EU	Newmarket	<2	N/A
17C-01541	Succulent pork casserole	Cow & Gate	05.04.2019	106929 C/08990.05	EU	Cambridge	<2	N/A
17C-01542	Organic swede, parsnip, carrot & quinoa	Quinoa Mothergrain	31 01 2018	1	UK	Lewes	<2	N/A
17C-01543	Organic butternut squash, carrots, apples & prunes	Ella's Kitchen	05/18	1009419202 1009419382 1109419362 1209419232	EU	Cambridge	<2	N/A
17C-01544	Organic prunes	Ella's Kitchen	05/18	111716234 111716244 111716254 111717314 211717204 211717314 211717374	EU	Cambridge	<2	N/A

Category 10 Other products, based on cereals, potatoes, cocoa and coffee - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01575	Sweet microwave popcorn	Butterkist	07 2018	LW 7 192	None declared	Cambridge	N/A	17
17C-01576	Sweet microwave popcorn	Eazy Pop	JUL 2018	170228	EU	Wembley	N/A	19

Category 11 Other products, not based on cereals, potatoes, cocoa and coffee - 2011 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	2-methyl furan (µg/kg)	
							As received	As consumed
17C-01593	Prunes in syrup	Tesco	AUG 2019	7236 L - PRY V12 12.8	UK	Newmarket	<2	N/A
17C-01594	Pitted prunes in fruit juice	Sainsbury's	AUG 2019	7237 04 DAS V9	UK	Cambridge	<2	N/A

6.4.4 3-methyl furan

Category 5 Breakfast cereals (excluding porridge) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan ($\mu\text{g}/\text{kg}$)	
							As received	As consumed
17C-01401	Honey multigrain flakes of wholegrain corn, spelt & barley	Rude Health	08 11 17	L 313 M	None declared	Cambridge	<10	N/A
17C-01402	Organic whole wheat cereal biscuits	Weetabix Organic	04/01/2018	17004 2	None declared	Cambridge	<10	N/A
17C-01403	Grape-nuts - wheat & malted barley cereal	Post	25AUG17	RGA 3	USA	Newmarket	<10	N/A
17C-01404	Puffed wheat	The Good Grain Co.	AUG2017	20160906-1 P-1	None declared	Cambridge	<10	N/A
17C-01405	Bran flakes	Tesco	10/2017	P4 B1 70200953	UK	Newmarket	<10	N/A
17C-01406	Apricot wheats	Tesco	09/2017	L1 63500952	UK	Newmarket	<10	N/A
17C-01407	Wholegrain bran flakes	Sainsbury's	25 JAN 2018	7025	UK	Cambridge	<10	N/A
17C-01408	Cornflakes	Kellogg's	12 12 17	04 MC	None declared	Cambridge	<10	N/A
17C-01409	Shreddies - whole wheat malted cereal	Nestlé	09/2017	63430952 L3	None declared	Cambridge	<10	N/A
17C-01410	Puffed wheat	Honey Monster Puffs	OCT 2017	265	None declared	Cambridge	<10	N/A
17C-01411	Whole wheat cereal biscuits	Morrisons	21/12/2017	6355 1	None declared	Cambridge	<10	N/A
17C-01412	Frosted wheats - shredded wholewheat with sugar topping	Kellogg's	13 12 17	31 MC	None declared	Newmarket	<10	N/A
17C-01413	Shredded wheat - wholegrain wheat cereal biscuits	Nestlé	10/2017	70170952 A	None declared	Newmarket	<10	N/A
17C-01414	Wheat biscuits	Tesco Everyday Value	17/01/2018	4	UK	Newmarket	<10	N/A
17C-01415	Golden puffs	Harvest Morn	09.12.2017	16350AEF	None declared	Cambridge	<10	N/A
17C-01416	Malted wheaties	Asda	10/01/2018	7010 A	UK	Cambridge	<10	N/A
17C-01417	Crunchy bran - high fibre cereal	Weetabix	16/01/2018	7016 9	None declared	Cambridge	<10	N/A
17C-01418	Organic bran flakes	Tree of Life	31/10/17	59061 DD 2	Produce of UK	Cambridge	<10	N/A
17C-01419	Bran flakes	Co-op	09/2017	63550953 P4 B1	UK using British wheat	Cambridge	<10	N/A
17C-01420	Wholewheat biscuits	Waitrose Essential	12/01/2018	7012 1	None declared	Newmarket	<10	N/A

Category 5 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01421	Fig & cranberry granola	The Food Doctor	15 09 2017	6258	UK	Newmarket	<10	N/A
17C-01422	3 seed granola	Marks & Spencer	06/2017	6340	UK	Cambridge	<10	N/A
17C-01423	Rice krispies	Kellogg's	16 12 17	33 MC	None declared	Newmarket	<10	N/A
17C-01424	Rice snaps	Tesco	10/2017	70060953	UK	Newmarket	<10	N/A

Category 6 Biscuits, crackers, crisp bread and similar (excluding pastry and cake) - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01472	Cream crackers	Waitrose Essential	20 JAN 18	7 107 BB	None declared	Newmarket	<10	N/A
17C-01473	Organic wholemeal digestive biscuits	Doves Farm	03 DEC 17	7095	Ingredients from more than one country. Baked in the UK	Newmarket	<10	N/A
17C-01474	Dark rye crispbread	Ryvita	23-01-2018	4 7115	Dorset	Cambridge	14	N/A
17C-01475	Stem ginger biscuits	Fox's Crinkle Crunch	25 11 17	B S	None declared	Newmarket	<10	N/A
17C-01476	Rich tea biscuits	Asda	21 OCT 17	7105 T1	UK	Cambridge	<10	N/A
17C-01477	Crunchy ginger biscuits	McVitie's Ginger Nuts	09 09 17	C 7059 2	None declared	Newmarket	<10	N/A
17C-01478	Salted savoury snack biscuits	TUC Original	28/10/17	7 089 1A	None declared	Newmarket	<10	N/A
17C-01479	Ginger nuts biscuits	Tesco Everyday Value	28 10 17	C 7111 2	UK	Newmarket	<10	N/A
17C-01480	Cream crackers	Morrisons	18 NOV 17	7 128 BB	UK	Cambridge	<10	N/A
17C-01481	Extra wheatgerm crackers	Hovis	16 09 17	7003 C	None declared	Newmarket	<10	N/A
17C-01482	High bake water biscuits	Sainsbury's	28 10 17	7107 C 1	UK	Cambridge	<10	N/A
17C-01483	Wheat & rye crackers	Jacob's Krackawheat	04 NOV 17	T1 B	None declared	Cambridge	<10	N/A
17C-01484	Malted milk biscuits	Marks & Spencer	22/11/2017	7082 G8	UK	Cambridge	<10	N/A
17C-01485	Original thin sourdough rye crispbread	Finn Crisp	29 03 2018	Production date: 29 03 2017	Finland	Newmarket	<10	N/A
17C-01486	Flatbreads - mixed seeds	Jacob's	14 10 17	7097 C 1	None declared	Cambridge	<10	N/A
17C-01487	Shortbread fingers	Paterson's	APR 2018	L17109	None declared	Cambridge	<10	N/A
17C-01488	Scandinavian bran crispbread	GG Slimming World	20112019	None declared	Norway	Newmarket	<10	N/A

Category 6 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01489	Cream crackers	Jacob's	03 02 18	7 118 BB	None declared	Cambridge	<10	N/A
17C-01490	Butter crisps	Jules Destrooper	15/03/2018	SL235488	Belgium	Newmarket	<10	N/A
17C-01491	Rough oatcakes	Nairn's	14 SEP 2017	1057	Scotland	Cambridge	<10	N/A
17C-01492	30 mini gingerbread men bites	Asda	24/07/17	7 115	UK	Cambridge	<10	N/A
17C-01493	Iced gingerbread Daisy flower	Image on Food Ltd	Jan 2018	L17/ 1592/ AM	UK	Newmarket	<10	N/A
17C-01494	DIY gingerbread kit - 5 biscuits	Tesco	03/08/17	7 093	UK	Newmarket	<10	N/A
17C-01495	Gingerbread friends	Marks & Spencer	13/09/2017	L 7 095 W151	UK	Cambridge	<10	N/A
17C-01496	Biscuits with wholegrains - honey & live yoghurt filling	Belvita Breakfast Yogurt Crunch	28.07.2017	012	None declared	Cambridge	<10	N/A
17C-01497	Yogurt Breaks - radiant raspberry	McVitie's Go Ahead	09 DEC 2017	LZ70321	None declared	Newmarket	<10	N/A
17C-01498	Cranberry & raspberry breakfast biscuits	Marks & Spencer	09/08/2017	E	Scotland	Cambridge	<10	N/A
17C-01499	Double fan wafers	Carousel	43496	L7005	UK	Cambridge	<10	N/A
17C-01500	Fan wafers	Asda	JAN 18	7106 G11X	UK	Cambridge	<10	N/A
17C-01501	Wafers	Askey's	DEC 18	7089 G10 X	UK	Cambridge	<10	N/A

Category 7 Coffee and coffee substitutes - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01502	Coffee bags	Lyons	NOV 2018	7142	None declared	Cambridge	436	4
17C-01503	Italian espresso roasted & ground coffee	Waitrose	MAR 19	17082	Italy	Newmarket	416	3
17C-01504	Guatemala Arabica ground coffee	Percol	10.2018	L33 7101	Guatemala	Newmarket	255	7
17C-01505	Gajah mountain, Sumatra cafetiere grind coffee	Union Hand-Roasted Coffee	None declared	Hand roasted & hand packed 09 JUN 2017	Sumatra	London	293	7

Category 7 - 2017 samples continued...

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01506	Sumatra Mandheling roast & ground coffee	Tesco Finest	Apr 2018	7135 2	Indonesia Packed in the UK	Newmarket	397	7
17C-01507	Colombian Fairtrade coffee beans	Sainsbury's Taste the Difference	Apr 2018	7132 B3	Columbia Packed in the UK	Cambridge	532	11
17C-01508	Colombian ground coffee	Marks & Spencer	05/2018	7098 51	Colombia Packed in the UK	Cambridge	489	11
17C-01509	Monsoon Malabar coffee beans	Whittard of Chelsea	08.08.17	17137	None declared	Cambridge	563	16
17C-01510	Freeze dried soluble coffee	Nescafé Gold Blend	03 2019	70661092D	None declared	Newmarket	99	<1
17C-01511	Freeze dried decaffeinated soluble coffee	Nescafé Gold Blend Decaff	03 2019	70721092E	None declared	Cambridge	73	<1
17C-01512	Freeze dried instant coffee	Kenco Smooth	MAR-2019	L7076	None declared	Cambridge	<40	<1
17C-01513	Freeze dried decaffeinated instant coffee	Kenco Decaff	MAR-2019	L7090	None declared	Newmarket	63	<1
17C-01514	Freeze dried instant coffee	L'OR Classic	07-03-2019	L7066	None declared	Cambridge	68	<1
17C-01515	Freeze dried decaffeinated instant coffee	L'OR Décaféiné	04-04-2019	L7094	None declared	Cambridge	59	<1
17C-01516	Chicory & coffee essence	Camp	21 04 19	L7111	UK	Cambridge	<40	<1
17C-01517	Dandelion coffee compound	Symingtons	FEB 2018	BN 120107	None declared	Cambridge	<40	<1
17C-01518	Organic cereal coffee	Lima Yannoh Instant	28.02.2019	L017015	Switzerland	Cambridge	<40	<1
17C-01519	Instant blend of cereal and guarana-coffee alternative	Whole Earth Wake Up	NOVEMBER 2018	L6308	Italy	Cambridge	<40	<1
17C-01520	Instant cereal drink	Barley Cup Original	04.11.2019	6445B	None declared	Cambridge	<40	<1
17C-01521	Organic instant cereal drink	Biona Organic Biomalt	04.19	L6115A	None declared	Luton	<40	<1

Category 8 Baby foods, other than processed cereal based foods - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01522	Organic cottage pie	Hipp Organic	18/03/2018	V H - 0584	France	Newmarket	<2	N/A
17C-01523	Organic carrot, sweet potato & swede	Boots Baby Organic	12/09/2017	G - 0986	France	Newmarket	<2	N/A
17C-01524	Carrot & sweet potato mash	Heinz Mum's Own	07/2018	7024 0441 B	None declared	Cambridge	<2	N/A
17C-01525	Organic parsnip, potato & turkey casserole	Hipp Organic	05/18	LA05798 DE P10/16 025229 025273 025336 004852	Germany	Cambridge	<2	N/A
17C-01526	Cheesy tomato pasta stars	Heinz Mum's Own	08/2018	7046 0428 C	None declared	Cambridge	<2	N/A
17C-01527	Organic carrots, apples & parsnips	Ella's Kitchen	06/18	1014708346 1014709276 1014710086 1014710136	EU	Cambridge	<2	N/A
17C-01528	Organic veg with pasta & cheese	Boots Baby Organic	30/06/2018	J- 0982	France	Newmarket	3	N/A
17C-01529	Vegetable and chicken casserole puree	Heinz	14/03/18	V G - 7074 0570	EU	Cambridge	<2	N/A
17C-01531	Organic mixed vegetable medley	Hipp Organic	08/18	LA12717 DE P02/17 031726 031765 031791 031829	Germany	Cambridge	<2	N/A
17C-01532	Spaghetti bolognese	Heinz Little Kidz	27/04/2018	7118	EU	Cambridge	3	N/A
17C-01533	Spaghetti bolognese	Cow & Gate	28/07/2018	AT [4] 118	EU	Cambridge	4	N/A

Category 8 - 2017 samples, continued...

Sample code	Product description	Brand	Best before date	Batch code(s)	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01534	Organic alphabet pasta	Hipp Organic	28.01.18	LA14106	Austria	Cambridge	<2	N/A
17C-01535	Organic tomato & leek pasta	Hipp Organic	14/03/2018	V G- 0589	France	Cambridge	<2	N/A
17C-01536	Organic vegetable + lentil bake	Ella's Kitchen	06/2018	03 G-7125 0561	EU	Cambridge	7	N/A
17C-01537	Creamed carrot & potato	Cow & Gate	12.04.2019	106975/ C/08989.02/	EU	Cambridge	<2	N/A
17C-01538	Carrot and lamb hotpot	Cow & Gate	19.04.2019	106966/ C/08480.05/	EU	Cambridge	<2	N/A
17C-01539	Organic beef stew with spuds	Ella's Kitchen	FEB 2018	L7135 B3 LB FR27679115CE	EU	Cambridge	<2	N/A
17C-01540	Creamed cottage pie	Cow & Gate	16.03.2019	107019 C/09190.04/	EU	Newmarket	<2	N/A
17C-01541	Succulent pork casserole	Cow & Gate	05.04.2019	106929 C/08990.05	EU	Cambridge	<2	N/A
17C-01542	Organic swede, parsnip, carrot & quinoa	Quinoa Mothergrain	31 01 2018	1	UK	Lewes	<2	N/A
17C-01543	Organic butternut squash, carrots, apples & prunes	Ella's Kitchen	05/18	1009419202 1009419382 1109419362 1209419232	EU	Cambridge	<2	N/A
17C-01544	Organic prunes	Ella's Kitchen	05/18	111716234 111716244 111716254 111717314 211717204 211717314 211717374	EU	Cambridge	<2	N/A

Category 10 Other products, based on cereals, potatoes, cocoa and coffee - 2017 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01575	Sweet microwave popcorn	Butterkist	07 2018	LW 7 192	None declared	Cambridge	N/A	<10
17C-01576	Sweet microwave popcorn	Eazy Pop	JUL 2018	170228	EU	Wembley	N/A	<10

Category 11 Other products, not based on cereals, potatoes, cocoa and coffee - 2011 samples

Sample code	Product description	Brand	Best before date	Batch code	Declared country of origin	UK town where purchased	3-methyl furan (µg/kg)	
							As received	As consumed
17C-01593	Prunes in syrup	Tesco	AUG 2019	7236 L - PRY V12 12.8	UK	Newmarket	<2	N/A
17C-01594	Pitted prunes in fruit juice	Sainsbury's	AUG 2019	7237 04 DAS V9	UK	Cambridge	<2	N/A