

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



1288

Accredited to
ISO/IEC 17025:2005

Premier Foods Group Limited (Trading as Premier Analytical Services)

Issue No: 060

Issue date: 15 November 2016

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Testing performed at the above address only

DETAIL OF ACCREDITATION

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|-----------------------------|--|--|
| BAKERY and DAIRY FOOD TYPES | <u>Chemical Tests</u> Fructans | Documented In-House Method C-TM-142 using HPLC with electro-chemical detection |
| COFFEE and COCOA PRODUCTS | Caffeine | C-TM-068 using HPLC |
| FOOD CONTACT MATERIALS | 1,3-dichloropropan-2-ol 2,3-dichloropropan-1-ol 2- and 3-chloro-propane 1,2-diol | C-TM-069 using GC-MS |
| MEAT PRODUCTS | Estimation of Meat Content | C-TM-211 By calculation based on Stubbs & Moore using accredited values for protein, fat, moisture and ash |
| CEREALS AND CEREAL PRODUCTS | Free Amino acids: - Asparagine - Alanine - Aspartic acid - Glutamic acid - Glutamine - Glycine - Isoleucine - Leucine - Phenylalanine - Serine - Threonine - Tyrosine - Valine Ethyl Carbamate | C-TM-227 using HPLC C-TM-226 using GC-MS |



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| FOOD and FOOD PRODUCTS | <u>Chemical Tests</u> (cont'd) | Documented In-House Method |
| | Acrylamide | C-TM-207 using selective bromination and GC-MS/MS |
| | Ash | C-TM-002 |
| | 2- and 3-chloro-1,2-propanediol (2 - MCPD & 3 - MCPD) 1,3 -dichloropropan-2-ol (1,3-DCP) 2,3 - dichloropropan-1-ol (2,3-DCP) | C-TM-069 using GC-MS |
| | Fatty Acid Esters of 3-MCPD | C-TM-258 using GC-MS |
| | Chloride - water soluble | C-TM-019 using Electrometric titration on aqueous extract |
| | Cholesterol | C-TM-230 using GC-MS |
| | Dietary Fibre | C-TM-129 (AOAC) |
| | Ethanol | C-TM-105 using GC with aqueous extraction |
| | Energy | C-SM-015 by calculation |
| | Fat - total | C-TM-007 using acid hydrolysis and liquid-liquid extraction |
| | Fat - total | C-TM-267 using NMR |
| | Fatty Acid Composition | C-TM-009 using GC |
| | Furan | C-TM-225 using GC-MS |
| | Free Fatty Acids and Peroxide Value | C-TM-028 using titration |
| DRY SPICES, FATS, OIL-BASED SPICE PASTE and WATER-BASED SPICED SAUCES | Illegal Dyes: Sudan I, Rhodamine B, Sudan II, Para Red, Sudan III, Sudan red G, Sudan IV, Fast Garnet, Sudan Red 7B, Nitroaniline, Butter Yellow, Toluidine Red, Sudan Orange G, Sudan Black, Auramine-O, Orange II, Metanil yellow, Sudan Red B | C-TM-224 using LC-MS/MS |



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| FOOD and FOOD PRODUCTS excluding meat | <u>Chemical Tests</u> (cont'd) Melamine | Documented In-House Method C-TM-263 using LC-MS/MS |
| FOOD and FOOD PRODUCTS | Metals: Aluminium Calcium Copper Iron Magnesium Manganese Potassium Sodium Zinc | C-TM-206 by ICP-OES - Extraction procedure C-TM 205 |
| | Phosphorus | C-TM-214 by ICP-OES - Extraction procedure C-TM 213 |
| | Arsenic Cadmium Lead Mercury | C-TM-219 by ICP-OES – Extraction procedure C-TM 218 |
| FRUITS AND VEGETABLES | Tin | C-TM-102 by ICP-OES |
| FOOD and FOOD PRODUCTS | Moisture content | 1) C-TM-001 using oven drying at 102 °C 2) C-TM-037 using oven drying following air/freeze drying |
| SUGAR SYRUPS and HIGH WATER CONTENT PRODUCTS | Moisture | C-TM-035 using Vacuum oven drying |
| DRY SUGAR BASED PRODUCTS, SUGAR SYRUPS, SOFT DRINKS and BAKERY MIXES | Sweeteners: Saccharin Acesulfame-K Aspartame | C-TM-139 by HPLC |
| FOOD and FOOD PRODUCTS | Mono and Disaccharides Nitrogen/crude protein | C-TM-004 using HPLC C-TM-189 using DUMAS Combustion |



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| FOOD and FOOD PRODUCTS INCLUDING SAUCES AND PRESERVES | <u>Chemical Tests</u> (cont'd) | Documented In-House Method |
| | Titrateable acidity | C-TM-115 using titration |
| | Organic Acids (Citric, Malic, Tartaric, Isocitric) | C-TM-220 by IC/HPLC with detection by conductivity |
| | Preservative acids (Acetic and Propionic) | C-TM-266 by ion chromatography |
| | Protein - crude | C-TM-003 using automated Kjeldahl |
| | pH | C-TM-100 using pH meter and reference to manufacturers' instructions |
| | Sodium | C-TM-260 by atomic absorption |
| | Sorbic and Benzoic Acids | C-TM-043 using GC |
| | Sulphur dioxide | C-TM-240 by distillation and ion chromatography |
| | <u>Vitamins</u> | |
| | Vitamin B ₆ | C-TM-215 by HPLC with detection by fluorescence |
| | Vitamin C | C-TM-023 by HPLC with detection by fluorescence |
| | Vitamin A | C-TM-021 by HPLC |
| | Vitamin D | C-TM-273 by HPLC |
| | Vitamin E | C-TM-056 by HPLC with detection by fluorescence |
| | Niacin Nicotinamide Nicotinic acid | C-TM-265 by LC-MS-MS |
| Riboflavin | C-TM-055 by HPLC with detection by fluorescence | |



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| FOOD and FOOD PRODUCTS INCLUDING SAUCES AND PRESERVES (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method |
| | <u>Vitamins</u> (cont'd) | |
| | Thiamin | C-TM-054 by HPLC with detection by fluorescence |
| FOOD and FOOD PRODUCTS Vitamin Fortified Foods: including cereal based foods, Milk Powders, Bread Products, Yeast Extract, Juices and Fruit Drinks (excluding Meat, Liver and Cheese) | Folic Acid | C-TM-158 by HPLC |
| | Folic Acid | C-TM-287 by LC-MS/MS |
| FOOD AND FOOD PRODUCTS, AND ENVIRONMENTAL SWABS | Vitamin B ₁₂ | C-TM-285 by LC-MS/MS |
| | <u>Allergens:</u> | Documented In-House Method |
| | Almonds | C-TM-234 using Ridascreen FAST Almond ELISA kit |
| | Egg White Protein | C-TM-246 using Biokits Egg Assay ELISA kit |
| | Gluten | C-TM-210 using Ridascreen Gliadin ELISA kit |
| | Peanut | C-TM-184 using Biokits Peanut Assay ELISA kit |
| | Soya Protein | C-TM-154 using ELISA Systems Soya Protein ELISA kit |
| COFFEE and COCOA PRODUCTS | <u>Mycotoxins:</u> | Documented In-House Method |
| | Ochratoxin A | BA-TM-24 using HPLC with detection by fluorescence |
| MILK and MILK PRODUCTS | Aflatoxin M ₁ | BA-TM-25 using HPLC with detection by fluorescence |
| FUNGAL BIOMASS PRODUCTION | Fusarins | BA-TM-28 using HPLC-MS |



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| FUNGAL BIOMASS PRODUCTION (cont'd) | <u>Chemical Tests</u> (cont'd) <u>Mycotoxins</u> (cont'd): Trichothecenes in Fungal Biomass: 3 Acetyldeoxynivalenol 15 Acetyldeoxynivalenol Deoxynivalenol Diacetoxyscirpenol Fusarenone X HT2 Toxin Neosolaniol Nivalenol T2 Toxin T2 Triol | Documented In-House Method BA-TM-01 using GC/MS |
| OILS and FATS | Aflatoxin B ₁ B ₂ G ₁ G ₂ Ochratoxin A Zearalenone Trichothecenes 3 Acetyldeoxynivalenol 15 Acetyldeoxynivalenol Deoxynivalenol Diacetoxyscirpenol Fusarenone X HT2 Toxin Neosolaniol Nivalenol T2 Toxin T2 Triol | BA-TM-14 using HPLC with detection by fluorescence BA-TM-06 using GC-MS |
| FRUIT JUICE AND FRUIT PRODUCTS | <i>Alternaria</i> toxins | BA-TM-30 using HPLC-UV |
| POTATO PRODUCTS | Glycoalkaloids | BA-TM-20 using HPLC |
| SUGAR SYRUPS | Trichothecenes 3 Acetyldeoxynivalenol 15 Acetyldeoxynivalenol Deoxynivalenol Diacetoxyscirpenol Fusarenone X HT2 Toxin Neosolaniol Nivalenol T2 Toxin T2 Triol | BA-TM-05 using GC-MS |



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| SUGAR SYRUPS (cont'd) FOOD and FOOD PRODUCTS | <u>Chemical Tests</u> (cont'd) | Documented In-House Method |
| | <u>Mycotoxins</u> (cont'd): | |
| | Aflatoxin B ₁ B ₂ G ₁ G ₂ Ochratoxin A Zearalenone | BA-TM-13 using HPLC with detection by fluorescence |
| | Aflatoxin B ₁ B ₂ G ₁ G ₂ - general | BA-TM-10 using HPLC with detection by fluorescence |
| | Citrinin | BA-TM-19 using HPLC with detection by fluorescence |
| | Cyclopiazonic acid | BA-TM-29 using HPLC-UV |
| | Deoxynivalenol | BA-TM-22 using HPLC- UV |
| | Ergot alkaloids - Ergometrine (ergonovine), ergocryptine, ergotamine, ergosine, ergocristine, ergocornine, ergometrinine, ergocryptinine, ergotaminine, ergosinine, ergocristinine, and ergocorninine | BA-TM-33 using LC-MS/MS |
| | Fumonisin B ₁ B ₂ B ₃ | BA-TM-17 using HPLC with detection by fluorescence |
| | Fumonisin B ₁ B ₂ B ₃ | BA-TM-31 using LC-MS/MS |
| | Moniliformin | BA-TM-26 using HPLC- UV |
| | Ochratoxin A | 1) BA-TM-09 using HPLC with detection by fluorescence 2) BA-TM-15 using Immunoaffinity columns and HPLC with detection by fluorescence |
| | Patulin | BA-TM-16 using HPLC-UV |
| Sterigmatocystin | BA-TM-27 using HPLC with detection by fluorescence | |



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| FOOD and FOOD PRODUCTS (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method |
| FOODS and FOOD PRODUCTS - Low moisture samples only (Raw ingredients and finished product) | <u>Mycotoxins</u> (cont'd): Zearalenone Trichothecenes 3 Acetyldeoxynivalenol 15 Acetyldeoxynivalenol Deoxynivalenol Diacetoxyscirpenol Fusarenone X HT2 Toxin Neosolaniol Nivalenol T2 Toxin T2 Triol | BA-TM-11 using HPLC with detection by fluorescence BA-TM-03 using GC-MS |
| PASTA (DRIED) | <u>Molecular Tests</u> <i>Triticum aestivum</i> (authenticity) | C-TM-188 using gel electrophoresis |
| PROCESSED MATERIALS, SPECIFICALLY , BURGERBUNS, VEGETABLE PUREES, PASTRY AND PIZZA BASES | The Cauliflower Mosaic Virus 35S promoter and the NOS terminator Quantitative determination of Monsanto MON 40-3-2 (Roundup Ready Soya) and Syngenta Bt176 maize | C-TM-195 using real time PCR |
| FOOD and FOOD PRODUCTS | The Cauliflower Mosaic Virus 35S promoter and the NOS terminator 1. Qualitative determination of: GM soya Monsanto MON 40-3-2 (Roundup ready Soya) Bayer A2704-12, Bayer A5547-127, Monsanto MON 89788, Pioneer Hi Bred DP356043-5 | C-TM-195 using real time PCR |



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| <p>FOOD and FOOD PRODUCTS (cont'd)</p> | <p><u>Molecular Tests</u> (cont'd)</p> <p>The Cauliflower Mosaic Virus 35S promoter and the NOS terminator (cont'd)</p> <p>2. Qualitative determination of: GM maize</p> <p>Syngenta Bt176, Monsanto MON 810 Syngenta Bt11 Monsanto MON 88017 Monsanto GA21 Monsanto MON 863 Monsanto NK603 Pioneer-Hi bred TC 1507 Pioneer-Hi bred DAS 59122 AgrEvo CBH 351 Bayer T25 Syngenta Bt10 Syngenta MIR 604</p> <p>3. The quantitative detection of: GM soya</p> <p>Monsanto Roundup Ready soya Monsanto MON 89788 Pioneer-Hibred_DP356043-5 Bayer A2704-12 Bayer A5547-127</p> <p>4. The quantitative detection of: GM maize</p> <p>Monsanto MON 88017 Syngenta Bt176, Monsanto GA21 Monsanto MON 863 Monsanto NK603 Pioneer-Hi bred DAS 59122 Syngenta MIR 604</p> | <p>Documented In-House Method</p> <p>C-TM-195 using real time PCR (cont'd)</p> |



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| UNPROCESSED MATERIALS | <u>Molecular Tests</u> (cont'd) The qualitative detection of the following GM varieties:- Potato: BASFEH92-527-1 Rice varieties: Bayer LLRice 62 and unapproved Bt63 | C-TM-195 using real time PCR |
| FOOD and FOOD PRODUCTS (cont'd) | <u>Analysis of Foreign Bodies</u> Including analysis and identification (as relevant and appropriate to material submitted) of: Active Alkaline Phosphatase Enzyme α-Amylase Bone Blood Calcium Carbonate Cellulose Cell Wall Structures Ceramics Crystalline Sugar Dental Amalgam | Documented in house methods F-TM-01 and F-TM-02 in conjunction with (as appropriate) F-TM-24 using nitrophenol phosphate with visual determination of colour change F-TM-32 using visual determination of colour change F-TM-05 using X-ray analysis, compound microscopy and staining F-TM-27 visual determination of colour change using staining F-TM-30 using X-ray analysis and physical attributes F-TM-15 using compound microscopy and staining F-TM-28 using compound microscopy and staining F-TM-25 using X-ray analysis and physical attributes F-TM-20 using X-ray analysis, Fourier transform infra-red spectroscopy (FTIR), compound microscopy and physical attributes F-TM-17 using X-ray analysis and physical attributes |



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| FOOD and FOOD PRODUCTS (cont'd) | <u>Analysis of Foreign Bodies</u> Including analysis and identification (as relevant and appropriate to material submitted) of: (cont'd) | Documented in house methods F-TM-01 and F-TM-02 in conjunction with (as appropriate) |
| | Elastomers | F-TM-21 by X-ray analysis and physical attributes |
| | Fats and Oils | F-TM-06 using compound microscopy and staining |
| | Fibres | F-TM-04 using X-ray analysis and compound microscopy |
| | Fungal Hyphae and Spores | F-TM-31 using compound microscopy |
| | Glass (incl soda-lime glass) | F-TM-03 and F-TM-03a using X-ray analysis and physical attributes |
| | Lignin | F-TM-07 using compound microscopy and staining |
| | Metals | F-TM-22 using X-ray analysis and physical attributes |
| | Muscle Fibres | F-TM-14 using compound microscopy and staining |
| | Nail Clippings | F-TM-19 using Fourier transform infra-red spectroscopy (FTIR) and physical attributes |
| | Plastics | F-TM-18 using Fourier transform infra-red spectroscopy (FTIR) |
| | Protein | F-TM-09 using compound microscopy and staining |
| | Rodent Droppings | F-TM-10 using compound microscopy and physical attributes |
| | Salt | F-TM-11 using X-ray analysis and physical attributes |
| | Silica and Silicate Minerals | F-TM-08 using X-ray analysis and physical attributes |



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| FOOD and FOOD PRODUCTS (cont'd) | <u>Analysis of Foreign Bodies</u> Including analysis and identification (as relevant and appropriate to material submitted) of: (cont'd) | Documented in house methods F-TM-01 and F-TM-02 in conjunction with (as appropriate) |
| | Starch | F-TM-12 using compound microscopy and staining |
| | Stone Cells | F-TM-23 using compound microscopy and staining |
| | Struvite | F-TM-16 using X-ray analysis and physical attributes |
| | Tooth | F-TM-26 using X-ray analysis and physical attributes |
| | Wood | F-TM-13 using compound microscopy, staining and physical attributes |
| Bread | Excess Fat/Oil | F-TM-29 using compound microscopy and staining and Fourier transform infra-red spectroscopy (FTIR) |
| END | | |