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(Issue 2, 12 December 2024 replacement of SAMM 336 dated 1 April 2024)

LABORATORY LOCATION: (PERMANENT LABORATORY)

BIO SYNERGY LABORATORIES SDN. BHD.
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FIELDS OF TESTING: **CHEMICAL, GENETIC MODIFIED ORGANISM, NUCLEIC ACID & MICROBIOLOGY**

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Products • Alcohol & Non-alcoholic • Dairy Products • Edible Oils, Fats & Their Products • Egg & Egg Products • Essential Nutrients • Fish & Fish Products • Frozen Food • Flour & Confectionery • Food Additives & Supplements • Honey & Honey Products • Meat, Poultry & Derived Products • Nuts, Fruits & Vegetables & Derived Products • Feed, Sauces, Herbs, Spices & Condiments • Sugar & Sugar Products • Traditional Medicine	Energy Content as Calories	Method of Analysis for Nutrition Labeling, Chapter 1, 1993
	Calories from Fat	Method of Analysis for Nutrition Labeling, Chapter 1, 1993
	Total Carbohydrate	Method of Analysis for Nutrition Labeling, Chapter 1, 1993
	Crude Protein	In-house method CL/FD/054, Based On AOAC 976.05 & AOAC 2001.11
	Crude Fat	In-house method CL/FD/055, Based On AOAC 991.36 & AOAC 2003.06
	Crude Ash	MS ISO 5984: 2003
	Moisture Content	MS ISO 6496: 2003
	Crude Fiber	AOAC 962.09
	pH	AOAC 981.12 & 970.21
	Total Fat	In-house method CL/FD/001, Based On Pearson's Chemical Analysis of Food, 8th Edition, 1990. Page 22
	Total Sugar	AOAC 923.09 & 968.28
	Moisture Content	In-house method CL/FD/002, using Moisture Analyzer HE53, Mettler Toledo

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Products • Alcohol & Non-alcoholic • Dairy Products • Edible Oils, Fats & Their Products • Egg & Egg Products • Essential Nutrients • Fish & Fish Products • Frozen Food • Flour & Confectionery • Food Additives & Supplements • Honey & Honey Products • Meat, Poultry & Derived Products • Nuts, Fruits & Vegetables & Derived Products • Feed, Sauces, Herbs, Spices & Condiments • Sugar & Sugar Products • Traditional Medicine	Total Dietary Fiber	Method of Analysis for Nutrition Labeling, 1993. Method No.: 985.29
	Cholesterol	AOAC 994.10
	Fatty Acid Saturated Fat Monounsaturated Fat Trans Fat	AOAC 996.06
	Vitamin A	Method of Analysis for Nutrition Labeling, 1993. Method No. 992.06
	Vitamin C	BS EN 14130: 2003
	Vitamin E	Method of Analysis for Nutrition Labeling, 1993. Method No. 992.03
	Phosphorus	Method of Analysis for Nutrition Labeling, 1993. Method No. 965.17
	Metals/ Minerals • Lead • Cadmium • Tin • Antimony • Calcium • Magnesium • Manganese • Iron • Zinc • Copper • Sodium • Potassium • Chromium • Nickel	In-house method CL/FD/003, Based On AOAC 999.11
	Arsenic	AOAC 986.15
	Mercury	AOAC 971.21
	3-MCPD	AOAC 2000.01
	Melamine Content, Cyanuric Acid, Ammeline, Ammelide	USFDA, LIB No. 4423, Vol 24, 2008
	Benzoic Acid Sorbic Acid Methylparaben Propylparaben	In-house method CL/FD/004, Based On Journal of Chromatography A, 1073, 2005. Page 393-397

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Products • Alcohol & Non-alcoholic • Dairy Products • Edible Oils, Fats & Their Products • Egg & Egg Products • Essential Nutrients • Fish & Fish Products • Frozen Food • Flour & Confectionery • Food Additives & Supplements • Honey & Honey Products • Meat, Poultry & Derived Products • Nuts, Fruits & Vegetables & Derived Products • Feed, Sauces, Herbs, Spices & Condiments • Sugar & Sugar Products • Traditional Medicine	Sulphur Dioxide Boric Acid Vitamin B1, B2, B3, B6 &B12 Aspartame	In-house method, CL/FD/005, Based On Pearson's Chemical Analysis of Food, 8th Edition, 1990. Page 64-65 - & GB 5009.34-2016 AOAC 970.34 In-house method, CL/FD/011, Based On Journal of Chromatography A, 870 (2000), Page 207-215 GB/T 22254-2008
Food Products • Meat • Fish	Nitroimidazoles Dimetrimedazole, Metronidazole, Ipronidazole, Ronidazole, Dimetridazole-2-hydroxy, Metronidazole-hydroxy, Ipronidazole-hydroxy	SN/T 1928-2007 (LC-MS/MS)
Food • Sugar & Confectionery • Beverages	Synthetic Colouring Allura Red, Brilliant Blue, Carmoisine, Erythrosin, Ponceau 4R, Quinoline Yellow, Sunset Yellow, Tartrazine	In-house Method, CL/FD/017, Based On Food Chemistry, Vol 61, No. 3, 1998. Page 367-372
Beverages Flavour Enhancers	Phthalate Esters (BBP, DBP, DEHP, DIBP, DINP, DNOP)	GB/T 21911-2008 (GC-MS)
Food Packaging Foods (eg.: Oil & Oil Products, Dairy Products, Flour & Confectionary, Sauces, Sugar & Sugar Products) Cosmetic & Toiletries	Phthalate Esters (DMP, DEP, DAP, DIBP, DBP, DMEP, BMPP, DEEP, DPP, DHXP, BBP, DBEP, DCHP, DEHP, DPhP, DINP, DNOP, DNP DIDP, DIOP)	In-house Method, CL/FD/044, Based On GB-5009.271-2016

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Bird's Nest	Sialic Acid	In-house Method, CL/FD/036, Based On GB/T 30636-2014
Meat & Meat Products Edible Bird's Nest	Nitrate/Nitrite	GB 5009.33 (IC)
Fish & Fish Products Egg & Egg Products	Nitrofuran Metabolites (AOZ, AMOZ, SEM, AHD)	GB/T 21311-2007 (LC-MS/MS)
Foods	Available Carbohydrate	Method of Analysis for Nutrition Labeling, Chapter 1, 1993
Foods (eg.: Oil & Oil Products, Fish & Fish Products, Traditional Medicine, Bird's Nest) **Feed**	• Lead • Cadmium • Arsenic • Mercury • Nickel • Iron • Copper • Antimony • Chromium • Selenium • Phosphorus • Calcium • Magnesium • Manganese • Silica • Sodium • Potassium • Aluminum • Sulphur • Tin • Zinc	In-house Method, CL/FD/029, Based On AOAC 2013.06 (ICP-MS)
Feed Foods (eg.: Fish & Fish Products)	Inorganic arsenic	In-house Method, CL/FD/041, Based On GB/T 5009.11-2014 [LC-ICPMS]
	Methyl mercury	In-house Method, CL/FD/042, Based On SN/T 5141-2019 [LC-ICPMS]
Foods (eg.: Edible Oil & Oil Products, Dairy Products, Fish & Fish Products, Non-alcoholic Beverages) Water	Ethylene Oxide, 2-chloroethanol	In-house Method, CL/FD/050, Based On EURL-SRM-Analysis of Ethylene Oxide and its Metabolite 2-Chloroethanol by the QuOil or the QuEChERS Method and GC-MS/MS

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Foods (eg.: Alcohol & Non-alcoholic Beverages, Sugar & Sugar Products) Cosmetic & Toiletries (eg.: Hand Sanitizer, Wet Tissue, Facial Cleanser, Pain Reliever)	• Butanol • Methanol • Ethanol • IPA • Propanol	In-house Method, CL/FD/045, Based On AOAC 973.23
Foods (eg.: Oil & Oil Products, Fruits & Vegetables, Non-alcoholic Beverages, Meat & Meat Products, Egg & Egg Products)	Chlorate, Perchlorate	In-house Method, CL/FD/048, Based On USEPA Method 6850, Journal Of Studies In Science and Technology, Volume 6, Number 1, 2017, Agilent Application Note 5994-2248EN, 2020 (LC-MS/MS)
Honey, Kelulut	Hydroxymethylfurfuraldehyde	In-house Method, CL/FD/046, Based On MS 1531:2002 (HPLC)
Swabs Foods (eg.: Condiments, Beverages, Oil & Oil Products, Processed Food, Sugar & Sugar Products, Flour & Confectionery)	Allergen- Gluten	In-house Method, CL/FD/033, Based On Competitive Enzyme Immunoassay Method
	Allergen- Soy	In-house Method, CL/FD/034, Based On Competitive Enzyme Immunoassay Method
	Allergen- Milk	In-house Method, CL/FD/035, Based On Competitive Enzyme Immunoassay Method
	Allergen- Egg	In-house Method, CL/FD/047, Based On Competitive Enzyme Immunoassay Method
Food Swab samples	Allergen- Sesame	In-house Method, CL/FD/056, Based On Enzyme-Linked Immunosorbent Assay Method
	Allergen- Crustacean	In-house Method, CL/FD/057, Based On Enzyme-Linked Immunosorbent Assay Method
	Allergen- Mollusk	In-house Method, CL/FD/058, Based On Enzyme-Linked Immunosorbent Assay Method
	Allergen- Fish	In-house Method, CL/FD/059, Based On Enzyme-Linked Immunosorbent Assay Method
	Allergen- Peanut	In-house Method, CL/FD/060, Based On Enzyme-Linked Immunosorbent Assay Method

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Swab samples	Allergen- Almond	In-house Method, CL/FD/068, Based On Enzyme-Linked Immunosorbent Assay Method
	Allergen- Mustard	In-house Method, CL/FD/069, Based On Enzyme-Linked Immunosorbent Assay Method
Feed	Protein	ISO 5983 AOAC 990.03 (Combustion Method)
	Oil Crude Fiber Moisture Ash	ISO 6492 ISO 6865 ISO 6496 ISO 5984
Feed/Feed Ingredient	Nitrite	SN/T 5120-2019
Edible Oils, Fats & Their Products	Peroxide Value	MPOB p2.3: 2004 GB 5009.227-2016, Method I
	Benzo(α)pyrene	AOCS Cd 21-91 GB5009.27-2016
	Moisture & Volatile Matter Impurities Acidity DOBI Saponification Value Iodine Value Colour Lovibond Slip melting Point Unsaponifiable Matter Refractive Index Density Mineral Oil (Qualitative)	MPOB p2.1 Part 1: 2004 MPOB p2.2: 2004 MPOB p2.5: 2004 MPOB p2.9: 2004 MPOB p3.1: 2004 MPOB p3.2: 2004 MPOB p4.1: 2004 MPOB p4.2: 2004 MPOB p2.7:2004 MPOB p4.4:2004 MPOB p4.5:2004 AOAC 945.102

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Edible Oils, Fats & Their Products (Continue)	PG, TBHQ, BHA, BHT	AOCS Ce 6-86
	Anisidine Value	MPOB p2.4-2004
	Polycyclic Aromatic Hydrocarbons	In-house method, CL/FD/022 Based On ISO 15753 using Fluorescence Detector
	2-MCPD Esters, 3-MCPD Esters & Glycidol Esters	AOCS Cd 29b-13 (GC-MS)
	Aliphatic Hydrocarbon/Diesel/ Mineral Oil	ISO 17780:2015
	Organic Chloride, Inorganic Chloride, Total Chloride	In-house Method, CL/FD/039 Based On ASTM D4929 & UOP 779
	2-,3-MCPD esters & GE	AOCS Cd 29a-13 (GC-MS)
	Mono-, Di-, Tri-glyceries	In-house Method, CL/FD/062, Based On AOCS Cd 11b-91
	Soap	MPOB p2.13:2004
	Acid Value	GB 5009.229-2016, Method III
Food, Feed, Edible Oil & Oil Products	Polycyclic Aromatic Hydrocarbon [Refer Appendix D]	In-house Method, CL/FD/053, Based On GB 5009.265, Using GC-MS/MS
Milk & Milk Products	Vitamin D3	In-house Method CL/FD/021, Based On AOAC 995.05: 2010
Liquid Milk	Aflatoxin M1	AOAC 2000.08: 2010
Milk (e.g. Milk powder) & Milk Products	Aflatoxin M1	In-house Method Based On AOAC 2000.08:2010
Milk, Meat, Honey, Seafood & Egg	Chloramphenicol	In-house method, CL/FD/006, Based On Competitive Enzyme Immunoassay Method
Milk, Meat, Seafood & Egg	Nitrofuran (AOZ, AMOZ, AHD, SEM)	In-house method, CL/FD/007, Based On Competitive Enzyme Immunoassay Method
Meat, Cereal & Feed	Total Aflatoxin	In-house method, CL/FD/008, Based On Competitive Enzyme Immunoassay Method
Feed & Meat	Beta-agonist	In-house method, CL/FD/013, Based On Competitive Enzyme Immunoassay Method

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Feed & Seafood	Ethoxyquine	In-house Method CL/FD/020, Based On AOAC 996.13 using HPLC FLD & LC-MS/MS
Animal Derived Food & Seafood	Fluroquinolones	In-house method, CL/FD/015, Based On Competitive Enzyme Immunoassay Method
	Flumequine	In-house method, CL/FD/016, Based On Competitive Enzyme Immunoassay Method
Food, Feed	Total Volatile Basic Nitrogen (TVBN)	In-house method, CL/FD/037, Based On GB 5009.228-2016, Method I
Food, Feed	Vitamin B5, B7, B9, B12	In-house method, CL/FD/067, Based On GB 5009.210, AOAC 2016.02, AOAC 2014.02 & Agilent Application Notes 5994-5535 EN, Using HPLC-UV
Seafood	Histamine	In-house method, CL/FD/010, Based On Journal of Instrumental Analysis, Vol. 25, No.4, 2006, Page 59-62
	Formaldehyde	SC/T 3025-2006
	Oxolinic Acid	SC/T 3028-2006
Spices & Sauces	Sudan I, II, III, IV, Para Red, Rhodamine B, Orange II	Government Chemist Publication Analytical Method: LGC/GC/2007/005

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Sauces	Acidity pH Salt (as Sodium Chloride) Total Nitrogen Total Soluble Solid	MS 1120: 2004 MS 1120: 2004 MS 1120: 2004 MS 1120: 2004 MS 532: 1995, Appendix A
Coffee & Coffee Products	Caffeine Content	ISO 10095: 1992
Food, Feed	Aflatoxins B1, B2, G1 & G2	In-house Method, CL/FD/061, Based On GB 5009.22-2016
Food	Propionic Acid	GB5009.120-2016
Food	Hydrogen peroxide	GB-5009.266-2016
Food Stimulants	Bisphenol – A	GB/T 23296.16-2009
Food, Animal Feed & Edible Oil	Organochlorine Pesticides • Aldrin • cis-Chlordane (alpha) • trans-Chlordane (gamma) • 2,4'-DDD • 4,4'-DDD • 2,4'-DDE • 4,4'-DDE • 4,4'-DDT • Dieldrin • alpha-Endosulfan • beta-Endosulfan • Endrin • alpha-HCH • beta-HCH • gamma-HCH • Heptachlor • Heptachlor-exo-epoxide (cis-, isomer B) • Heptachlor-endo-epoxide (trans-, isomer A) • Methoxychlor • Endosulfan-sulfate • Hexachlorobenzene	In-house Method, CL/FD/019 Based On AOAC 2007.01

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Edible Oil	Screening of Pesticides Residues • 2,4-D, • Acephate, • Aldicard, • Ametryn, • Aminopyralid, • Bifenthrin, • Butacarboxim, • Captan, • Chlorantraniliprole, • Chlorpyrifos, • Cinosulfuron, • Clethodim, • Cyhalothrin, • Cypermethrin, • Cyproconazole, • Deltamethirn, • Dicamba, • Difenoconazole, • Diquat, • Dithiocarbamates, • Diuron, • DSMA, • Fenthion, • Fipronil, • Fluazifop-butyl, • Fluroxypyr, • Flusilazole, • Glufosinate ammonium, • Glyphosate, • Haloxyfop methyl, • Haloxyfop-p-methyl, • Imazapyr, • Imazethapyr, • Indaziflam, • Methamidophos, • Methidathion, • Methomyl, • Methoxyfenozide, • Metsulfuron methyl, • Monocrotophos, • MSMA,	In-House Method, CL/FD/023 Based On AOAC 2007.01, using GC-MS/MS & LC-MS/MS

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Edible Oil (Continue)	Screening of Pesticides Residues • Paraquat • Permethrin, • Prochloraz, • Procymidone, • Propargite, • Sethoxydim, • Triadimenol, • Triasulfuron, • Triclopyr, • Trichlorfon, • Trifluralin • Hexaconazole	In-House Method, CL/FD/023 Based On AOAC 2007.01, using GC-MS/MS & LC-MS/MS
Edible Oil & Oil Products	Titre	MPOB p4.6:2004
	Polyethylene	AOCS Ca 16-75
	Total Polar Compounds	AOCS Cd 20-91
	Polyaromatic Hydrocarbons (PAH)	In-house Method, CL/FD/063, Based On ISO 22959:2009 & Agilent Application Note 5991-2772EN
Edible Oil & Oil Products Paper, Paper Board & Wood Pulp - Composite packaging material - Paper, paper board & specialty papers	MOSH, MOAH	ISO 20122
Edible Oil & Oil Products, Feed	Total Fluorine	In-house Method, CL/FD/038, Based On ASTM D3761
Oil & Oil Products	Mineral Oil Saturated Hydrocarbons (MOSH)/Polyolefinic Oligomeric Saturated Hydrocarbons (POSH) & Mineral Oil Aromatic Hydrocarbons (MOAH)	EN 16995:2017
Edible Oil & Oil Products Food Food Supplement	Tocopherol & Tocotrienol	In-house Method, CL/FD/064, Based On ISO 9936: 2016

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Oil Product- Glycerin	Identification A Identification B Identification C Assay Chloride Sulphate Residue On Ignition Organic Impurities Limit of Chlorinated Compounds Fatty Acid and Esters Colour Specific Gravity Water	USP 43
Food, Animal Feed & Edible Oil	Organophosphorus Pesticides • Ethion • Azinphos-ethyl • Phosalone • Chlorpyrifos • Carbophenothion • Malathion • Triphenyl Phosphate • Chlorpyrifos-methyl • Pirimiphos-methyl • Diazinon • Azinphos-methyl • Methidathion • Bromophos-ethyl • Formotion • Chlorfenvinphos • Dichloropenthion • Dichlorvos • Etrimfos • Fonofos • Primiphos-ethyl • Propetamphos • Sulfotep • Tertachlorvinphos • Dicrotops • Dimefox • Dimethoate • Disulfoton • Malaoxon • Methamidophos • Mevinphos • Omethoate	In-house Method, CL/FD/019 Based On AOAC 2007.01

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food, Animal Feed & Edible Oil (Continue)	Organophosphorus Pesticides • Omethoate • Paraoxon-ethyl • Parathion-ethyl • Pyrazophos • Triazophos	In-house Method, CL/FD/019 Based On AOAC 2007.01
Feeding Stuffs	Ash	Gafta Method 11:0
	Protein	Gafta Method 4:1
	Crude Fat	Gafta Method 3:0
	Crude Fibre	Gafta Method 9:0
	Moisture	Gafta Method 2.1
Cereal & Cereal Products	Moisture	Gafta Method 2.2
Maize & Pulse	Moisture	Gafta Method 2.3
Food (unsweeten cereals)	Beta-D-Glucan	AOAC 995.16
Food	Water Activity	In-house Method, CL/FD/017 Based On Decagon Paw Kit Water Activity Meter Manual
Sugar & Sugar based Food Products	Fructose, Glucose, Lactose, Maltose & Sucrose	Method of Analysis for Nutrition Labeling Method No. 980.13
Food, Feed	Hydrocyanic Acid	In-house Method, CL/FD/065, Based On AOAC 915.03
Food, Feed	Veterinary Drugs [Refer Appendix A]	In-house Method, CL/FD/051, Based On USDA, CLG-MRM 3.02, CLG-MGCV2.02 & Agilent Application Notes 5991-7895EN [LC-MS/MS]
Food, Feed, Edible Oil & Oil Products	Multi-pesticides Residues [Refer Appendix B & Appendix C]	In-house Method, CL/FD/052 Based On AOAC 2007.01, Using GC-MS/MS & LC-MS/MS
Food, Feed, Pharmaceutical Products, Edible Oils & Its Products	• Dioxin & Dioxin Like PCBs, Furan • Non-dioxin like PCBs – PCB 28, PCB 52, PCB 101, PCB 138, PCB 153 & PCB 180	In-house Method, CL/FD/031, Based On Agilent Application Note 5991-6590EN & LCTECH SOP, using GC-MS/MS

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Feed, Grains, Coffee Products, Edible Oils & Its Products Fish & Fish Products	Mycotoxins Aflatoxin B1, B2, G1, G2, Deoxinevalenol, Fumonisin B1, B2, Ochratoxin A, HT-2 Toxin & T-2 Toxin, Zearalenone	In-house Method, CL/FD/026, Based On Journal of Environmental & Analytical Toxicology, 5:2, 2014, Pg. 1-6
Milk & Milk Products, Food Supplement, Feed	Iodine	In-house Method, CL/FD/032, Based On AOAC 2012.14
Food Paper, Paper Board & Wood Pulp - Composite packaging material - Paper, paper board & specialty papers Water - Potable / drinking and domestic	PFAS [Refer Appendix E]	In-house Method, CL/FD/070, Based On USFDA C-010.03, EPA 533 and Agilent Application Note 5991-8969EN, 5994- 4960EN & 5994-2291EN, Using LC-MS/MS
General Foodstuffs	Vitamin D2 & D3	GB 5009.82-2016 (Method 4, HPLC/UV)
	Acrylamide	In-house Method, CL/FD/040 Based On GB 5009.204-2014 (LC-MS/MS)
Sugar	Polarization	ICUMSA Method GS2/3-1
	Reducing sugars	ICUMSA Method GS2/9-6
	Colour	ICUMSA Method GS2/3-10
	Moisture	ICUMSA Method GS2/1/3/9-15
	Conductivity Ash	ICUMSA Method GS2/3/9-17
	Turbidity	ICUMSA Method GS2/3-18
	Insoluble Matter (Sediment)	ICUMSA Method GS2/3/9-19
	Sulphite (Sulphur Dioxide)	ICUMSA Method GS2/1/7/9-33
	Beverage Floc	ICUMSA Method GS2/3-40
Gloves	Dimension Test	EN 455 Part 2: 2015
	Protein Content	EN 455 Part 3: 2015
	Powder Content	EN 455 Part 3: 2015

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Soil Aggregates	Organic Matter Content	BS 1377-3:2018, Clause 4
	Mass Loss On Ignition	BS 1377-3:2018, Clause 6
	Total Sulphate	BS 1377-3:2018, Clause 7.6
	Carbonate Content	BS 1377-3:2018, Clause 8.3
	Chloride	BS 1377-3:2018, Clause 9.3
	pH	BS 1377-3:2018, Clause 12
Petroleum & Petroleum Products • Fuels • Lubricants • Solvent Miscellaneous Products	Flash Point by Pensky-Martens Closed Cup Tester Kinematic Viscosity	ASTM D93-21 (Procedure A, Automated Apparatus) ASTM D445-21
Air Sampler Filter (Exclude Sampling)	Pb, Sn, Zn, Cd, As, Sb, Cu, Cr	NIOSH 7301 – Measurement
Industrial Hygiene Urine	Ag, Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Hg, Li, Mn, Mo, Ni, Pb, Pt, Sb, Si, Sr, Sn, Ti, Zn	In-house Method, CL/BS/001 Based On NIOSH 8310
Food & Cosmetic Products • Liquid Paste	Viscosity	BP 2019 Vol. V, Appendix VH
Cosmetic Products • Soap • Liquid, Solid, Powder, Cream, Gel, Lotion, Oil based, Perfume, Soap & Paste	Total Fatty Matter Pb, Cd, As, Hg	IS 286-1978 BP 2019, Vol. V, Appendix VII & IID
Cosmetic Products Cream, Gel, Lotion etc	Retinoic Acid (Tretinoin) Hydroquinone Hydroquinone Monomethylether Hydroquinone Monoethylether Hydroquinone Monobenzylether	ASEAN Harmonized Method, ACM SIN 01, 2005 (HPLC) KS580: 2006

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Pharmaceutical Products (Traditional Medicine) • Table & Capsule • Powder • Tablet	Disintegration Bulk Density Friability	USP 701 USP 616 BP 2019, Vol. V, Appendix XVII G
Pharmaceutical Product/ Traditional Medicine/ Food Supplement • Tablet, Capsule (Hard/Soft) • Tablet	Uniformity of Weight (Mass) Resistance to Crushing of Tablets (Hardness)	USP<2091> BP 2019, Vol. V, Appendix XVI J
Natural Drugs (Medical Plant Preparation) [Capsule, Powder]	Lovastatin (Monacolin K)	In-house Method, CL/PH/004, Based On QB/T 2847-2007
Pharmaceutical Products (Traditional Medicine) • Tablet • Powder • Soft Capsule • Hard Capsule	Mercury	BP 2019, Vol. V, Appendix VII & IID (FIMS)
	Lead Cadmium Copper Arsenic Iron Nickel Zinc	BP 2019, Vol. V, Appendix VII & IID (AAS)
	Calcium Magnesium Manganese Potassium Sodium	In-house method, CL/PH/002, Based On BP 2019, Vol. V, Appendix VII & IID (AAS)

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Pharmaceutical Products (Powder, Tablet, Soft Capsule, Hard Capsule, Medicated Soap & Shampoo, Emulsion/Cream, Liquid, Lozenges, Syrup, Transdermal/Patch/Plaster, Pil, Oil, Gel, Tea Bag)	Metals - Lead, Cadmium, Arsenic, Mercury	BP2019, Vol V, Appendix VII & II G1 (ICP-MS)
Cosmetic & Toiletries	Antimony	BP 2019, Vol V, Appendix VII & IID (AAS)
Cosmetic & Toiletries	1,4-Dioxan	In-house Method, CL/PH/005, Based On GB/T 30932-2014, Using Headspace GC-MS
Cosmetics & Toiletries	IFRA Allergens	In-House Method, CL/PH/006, Based On Journal of Food and Drug Analysis, Vol. 29, Issue 4, Article 11, 2021 & Agilent Application Note 5989-8724EN [GC-MS]
Cosmetic Products, Pharmaceutical Products, Food Supplement	pH	USP <791>
Pharmaceutical Products	Nitrosamines [Refer Appendix F]	In-house Method, CL/PH/007, Based On USP<1469> (Procedure 3) & Agilent Application Note 5994-5919EN

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water • Potable & Domestic • Industrial Water • Distilled Demineralized • Reverse Osmosis • Ultrapure Water • Swimming Pool Water • Cooling Tower Water • Boiler Water • Surface Water • Mineral Water • Industrial Effluent; etc	Temperature	APHA 2550 B
	pH	APHA 4500^{+}H
	COD	APHA 5220 B
	BOD	APHA 5210 B & 4500 OC
	Oil & Grease	APHA 5520 B
	Total Suspended Solid	APHA 2540 D
	Chromium Hexavalent	APHA 3500-Cr B
	Chromium Trivalent	In-house Method CL/WT/001, Based On APHA 3500-Cr B & 3120 B
	Phenol	APHA 5530 C
	Ammoniacal Nitrogen	APHA 4500-NH_3 B & C
	Cyanide	APHA 4500-CN C & D
	Organochlorine Pesticide • Aldrin, Dieldrin, Chlordane, DDT, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Lindane, Methoxychlor, Endosulfan	In-house Method, CL/WT/005, Based On AOAC 990.06
	Lead Cadmium Chromium Calcium Magnesium Iron Zinc Sodium Potassium Copper Manganese Nickel	APHA 3111 B
	Arsenic	APHA 3114 C

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water • Potable & Domestic • Industrial Water • Distilled Demineralized • Reverse Osmosis • Ultrapure Water • Swimming Pool Water • Cooling Tower Water • Boiler Water • Surface Water • Mineral Water • Industrial Effluent; etc	Phosphorus	APHA 4500 P C
	Conductivity	BP 2010, Vol. IV, Appendix VO
	Free Chlorine	In-house Method CL/WT/002, Based On HACH Spectrophotometer, Method 8021
	Total & Free Chlorine	APHA 4500-Cl G
	Chloramines	APHA 4500-Cl G
	Sulphide (1)	APHA 4500-S^{2-} F
	Sulphide (2)	In-house Method CL/WT/003, Based On HACH Spectrophotometer, Method 8131
	Formaldehyde (1)	APHA 6252 B
	Formaldehyde (2)	In-house Method CL/WT/004, Based On HACH Spectrophotometer, Method 8110
	Anions by IC • Fluoride, Chloride, Nitrite, Bromide, Nitrate, Phosphate, Sulfate	APHA 4110 B
	Alkalinity	APHA 2320 B
	Hardness	APHA 2340 B
	Total Solid	APHA 2540 B
	Total Dissolved Solid	APHA 2540 C
Water • Ultrapure Water • Drinking Water • Treated Water	Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Styrene	In-house Method, CL/WT/008 Based On USEPA 5030B & 8260B
	Total Organic Carbon	APHA 5310 B
	Colour PtCo	APHA 2120 C
	Turbidity	APHA 2130 B
	MBAS	APHA 5540 C
	Nitrate Nitrogen	APHA 4500-NO^{3-} B
	2,4-D	In-house Method, CL/WT/006 Based On Agilent Application Note 5989-5320N (LC-MS/MS)

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water • Potable & Domestic • Industrial Water • Distilled Demineralized • Reverse Osmosis • Ultrapure Water • Swimming Pool Water • Cooling Tower Water • Boiler Water • Surface Water • Mineral Water • Industrial Effluent; etc	**Metals by ICP** • Aluminium as Al • Antimony as Sb • Arsenic as As • Barium as Ba • Beryllium as Be • Bismuth as Bi • Boron as B • Cadmium as Cd • Calcium as Ca • Chromium as Cr • Cobalt as Co • Copper as Cu • Gold as Au • Iron as Fe • Lead as Pb • Lithium as Li • Magnesium as Mg • Manganese as Mn • Mercury as Hg • Molybdenum as Mo • Nickel as Ni • Platinum as Pt • Potassium as K • Selenium as Se • Silicon as SiO_2 • Silver as Ag • Sodium as Na • Strontium as Sr • Sulfur as S • Thallium as Tl • Tin as Sn • Titanium as Ti • Vanadium as V • Zinc Zn Sample Pre-treatment for Metal Analysis	APHA 3120 B APHA 3030 E
Water • Cooling Tower Water • Boiler Water	Mercury	APHA 3112 B
Water • Drinking Water • Treated Water	Chlorpyrifos	In-house Method, CL/WT/011, Based On US EPA 3510C & Agilent Application Note 5991-2405EN, 2013 (LC-MS/MS)

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water • Potable & Domestic • Distilled/Demineralized • Reverse Osmosis • Ultrapure Water • Swimming Pool Water • Cooling Tower Water • Boiler Water • Surface Water • Mineral Water	• Aluminium • Antimony • Arsenic • Barium • Beryllium • Boron • Cadmium • Chromium • Copper • Iron • Lead • Manganese • Magnesium • Mercury • Nickel • Selenium • Silver • Sodium • Thallium • Zinc • Calcium • Silicon • Potassium	APHA 3125 B (ICP-MS)
Municipal & Industrial Discharges	**Polycyclic Aromatic Hydrocarbons (PAH):** • Naphthalene • Acenaptylene • Acenaphthene • Fluorene • Phenanthrene • Anthracene • Fluoranthene • Pyrene • Benzo(a)anthracene • Chrysense • Benzo(b)fluoranthene • Benzo(k)fluoranthene • Benzo(a)pyrene • Dibenzo(a,h)anthracene • Benzo(ghi)perylene • Indeno(1, 2, 3-cd)pyrene	APHA 6440 B
Environmental Monitoring Effluent	Colour ADMI	APHA 2120 F

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Environmental Monitoring Industrial Effluent	Mercury	In-house Method, CL/WT/007, Based On APHA 3112B, using FIMS
Drinking Water	Biocides - • Dichlobenil • Desethylatrazine • Desethylterbutylazine • Simazine • Atrazine • Lindane • Terbutylazine • Metribuzine • Parathion-methyl • Heptachlor • Terbutryn • Aldrin • Metolachlor • Parathion-ethyl • Exo-heptachlorepoxide • Pendimethalin • Endo-Heptachlorepoxide • Triclosan • Dieldrin • Carfentrazone-ethyl • Diflufenican • Mefenpyr-diethyl	In-house Method, CL/WT/009, Based On ISO 27108:2010 E
	Mineral Oil	In-house Method, CL/WT/014, Based On APHA 5520 C and F
	Carbon Chloroform Extract	In-house Method, CL/WT/010 Based On Journal of American Water Works Association, Vol 54, No. 2, 1962. Pg 223-227
Water/Waste Water	Total Kjeldahl Nitrogen	APHA 4500-Norg C
Water/Waste Water	Dissolved Oxygen (DO) Biological Oxygen Demand (BOD) Cyanide Borate (H3BO3) Organic Matter	APHA 4500O-G APHA 5210 & 4500O-G In-house Method, CL/WT/013, Based On HACH Method 8027 MS 1350:1994, Appendix F MS 1350:1994, Appendix H

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water (eg.: Potable & domestic, Processed water)	Gross Alpha, Gross Beta	ISO 11704:2018
Solid Waste, Liquid Waste	Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Ni, P, K, Se, Si, Ag, Na, Sr, Ti, Sn, Ti, Zn, Mo, V, Tl	USEPA 6010 D (ICP-OES) with acid digestion of samples using USEPA 3050B or APHA 3030E
	Au, Pd, Pt, Te, Th	In-house Method, CL/WT/009, Based On USEPA 6010 D (ICP-OES) with acid digestion of samples using USEPA 3050B or APHA 3030E
	Hg	USEPA 7471 B (FIMS)
	Reactivity	USEPA SW 846, Chapter 7 (Qualitative-Visual Inspection)
	Water	USEPA 9000 (Karl Fisher Titration)
	Total Organic Carbon	USEPA 9060 A (TOC Analyzer)
	Total Sulfur	ASTM D 3177-02, Method A (Eschka Method – Gravimetric)
	Gross Calorific Value	ASTM D 5468-02 (Bomb Calorimeter)
	Total Halogen as Chlorine	ASTM E776-04 (Gravitmetric)
	Specific Gravity	ASTM D 891-04, Method B (Pycnometer)
	Sediment	ASTM D 473-02 (Gravimetric)
	Boiling Point	ASTM D 1120-04 (Manual Determination by Thermometer)
Solid Waste	Corrosivity (pH)	USEPA 9045 D (pH Meter)
Liquid Waste	Corrosivity (pH)	APHA 4500 H^+ (pH Meter)
Liquid Waste	Ignitability (Flash Point)	USEPA 1010 A (Pensky-Martens Closed-Cup Tester)
Solid Waste	Ignitability (Flash Point)	USEPA 1020 B (Setaflash [Small Scale] Closed-Cup Tester

Note:

- AOAC (OMA) : Official Methods of Analysis of AOAC International, 22nd Edition, 2023
- APHA : American Public Health Association, Standard Method for Examination of Water and Wastewater, 21st Edition, 2005.
- APHA : American Public Health Association, Standard Method for Examination of Water and Wastewater, 24th Edition, 2023.
- ASTM : American Society for Testing and Materials.
- BP : British Pharmacopeia, 2013 Vol. V., 2019 Vol. V.
- US EPA : United State Environment Protection Agency.
- USFDA, LIB : United State Food and Drug Administration, Laboratory Information Bulletin.
- USP : United State Pharmacopeia
- AOCS : American Oil Chemists' Society
- GAFTA : Grain and Feed Trade Association
- BS EN 14130 (2003) : British Standard European Standard: Foodstuffs – Determination of Vitamin C by HLPC.
- GB 5009.33-2016 : People's Republic of China Standard. National Food Safety Standard. Determination of Nitrite and Nitrate in Foods.
- GB 5009.265-2021 : People's Republic of China Standard. National Food Safety Standard. Determination of PAH in Foods.
- GB/T 21311-2007 : People's Republic of China Standard. Determination of Residues of Nitrofuran Metabolites in Food Stuffs of Animal Origin.
- GB/T 21911-2008 : People's Republic of China Standard. Determination of Phthalate Esters in Food.
- GB 5009.263-2016 : People's Republic of China Standard. National Standard of Food Safety-Determination of Aspartame and Alitame in Foods.
- GB/T 21311-2007 : People's Republic of China Standard. Food Contact Materials – Polymer – Determination of 2,2-bis (4-hyroxyphenyl) propane [Bisphenol A] in Food Simulans – High Performance Liquid Chromatography.
- GB 5009.120-2016 : People's Republic of China Standard. National Standard of Food Safety-Determination of Sodium Propionate and Calcium Propionate in Foods
- HACH : Handbook of Water Analysis.
- IS : Indian Standard, Method of Sampling and Test for Soaps (Second Revision) 1991.
- ISO 15753: 2016 : Animal and Vegetable Fats and Oil Determination of Polycyclic Aromatic Hydrocarbons
- JIS : Japanese Industrial Standard.
- KS 580: 2006 : Kenya Standard. Cosmetic Creams, Lotions and Gels for Skin Care. Determination of Hydroquinone Content.
- MS 532: 1995 : Malaysian Standard, Specification for Red Chilli Sauce (Second Edition).
- MS 1120:2004 : Malaysian Standard, Sauces-Sampling and Test Methods (First Edition).
- MS ISO 5984: 1996 : Malaysian Standard Identical with ISO, Animal Feeding Stuffs – Determination of Crude Ash.
- MS ISO 6496: 2003 : Malaysian Standard Identical with ISO, Animal Feeding Stuffs – Determination of Moisture and Other Volatile Matter Content.
- NIOSH : National Institute of Occupational Safety and Health
- SC/T 3025-2006 : Aquaculture Industry Standards, Ministry of Agriculture of the People's Republic of China, Determination of Formaldehyde in Aquatic Products.
- SC/T 3028-2006 : Aquaculture Industry Standards, Ministry of Agriculture of the People's Republic of China, Determination of Oxolinic Acid in Aquatic Products, Liquid Chromatography Method.
- SN/T 1928-2007 (LC-MS/MS): People's Republic of China Standard for Entry-Exit Inspection & Quarantine, Determination of Nitroimidazoles Residues in Foodstuffs of Animal Origin for Import & Export-LC-MS/MS Method

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Products • Coffee, Tea, Cereal Food, Frozen Food, Seafood, Sauces, Fruit Drink & Juice, Flour & Confectionery, Dairy Products, Egg & Egg Products, Fruits & Vegetables, Nuts & Nuts Products, Ready to eat Savouries, Meat & Poultry Products, Fish & Fish Products, Herb & Spices, Animal Feed, Milk & Milk Products, Oil & Oil Products	Standard Plate Count	AS 5013.5:2016 (Pour Plate Method)
	Aerobic Plate Count	AOAC 990.12 (3M Pertifilm)
		GB 4789.2-2022
	Yeast & Mould Counts	AS 5013.29-2009 (Pour Plate Method)
		AOAC 2014.05 (3M Petrifilm)
		GB 4789.15-2016
	Coliforms Counts	AS 5013.3-2022 (MPN Method)
		AS 5013.4-2009 (Pour Plate Method)
		AOAC 998.08 & 991.14 (3M Petrifilm)
		GB 4789.3-2016
	Escherichia coli Counts	AS 5013.15-2006 (MPN Method)
		AOAC 998.08 & 991.14 (3M Petrifilm)
		GB 4789.38-2012
	Staphylococcus aureus Counts	AS 5013.12.3-2004 (MPN Method)
		AS 5013.12.1-2016 (Spread Plate Method)
		AOAC 2003.11 (3M Petrifilm)
		GB 4789.10-2016
	Salmonella (Detection)	AS 5013.10-2022
		AOAC 2014.01 (3M Petrifilm)
		GB 4789.4-2016
	Bacillus cereus Counts	AS 1766.2.6;1991
		AS 5013.2-2007 (Spread Plate Method)
		GB 4789.14-2014

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food Products • Coffee, Tea, Cereal Food, Frozen Food, Seafood, Sauces, Fruit Drink & Juice, Flour & Confectionery, Dairy Products, Egg & Egg Products, Fruits & Vegetables, Nuts & Nuts Products, Ready to eat Savouries, Meat & Poultry Products, Fish & Fish Products, Herb & Spices, Animal Feed, Milk & Milk Products, Oil & Oil Products	Enterobacteriaceae Counts	AS 5013.8.2-2019 (Pour Plate Method) AOAC 2003.01 (3M Petrifilm) GB 4789.41-2016
	Clostridium perfringens Counts	AS 5013.16-2006 (Spread Plate Method)
	Clostridium botulinum (Detection)	FDA-BAM, Chapter 17, 2001
	Fecal Coliform Counts	FDA-BAM, Chapter 4 (MPN Method) GB 4789.39-2013
	Escherichia coli 0157: H7 (Detection)	FDA-BAM, Chapter 4A
	Shigella (Detection)	FDA-BAM, Chapter 6, January 2001
	Listeria spp *Listeria monocytogenes* (Detection)	AS 5013.24.1-2020 GB 4789.30-2016
	Vibrio parahaemolyticus (Detection)	AS 5013.18-2010 ISO/TS 21872-1: 2007 (E)
	Vibrio cholerae (Detection)	ISO/TS 21872-1: 2007 (E)
	Vibrio vulnificus (Detection)	ISO/TS 21872-2: 2007 (E)
	Cronobacter spp. (Detection)	ISO 22964:2017 (E)
	Campylobacter spp. Including *Campylobacter jejuni* & *Campylobacter coli*	ISO 10272-1:2017 (E)
	Lactic Acid Bacteria	In-house Method (ML-101) Based On GB 4789.35-2016
	β -Hemolytic Streptococcus	GB 4789.11-2014

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Canned Foods	**Spoilage in Canned Foods** • Flat Sour Organism • Anaerobic Organism • Leakage Organism	FDA-BAM, 2001, Chapter 21A
Pharmaceutical Products / Traditional Medicines • Powder, Capsule (Hard/Soft), Tablet, Ointment, Cream, Liquid, Lozenges, Pill, Herbal Tea, Transdermal patches, Cosmetic	Total Microbial Aerobic Count	BP 2019, Vol. V, Appendix XVI B
	Total Combined Yeast & Mould Count	BP 2019, Vol. V, Appendix XVI B
	Bile-tolerant Gram Negative Bacteria (Semi-Quantitative)	BP 2019, Vol. V, Appendix XVI B
	Escherichia coli (Detection)	BP 2019, Vol. V, Appendix XVI B
	Salmonella (Detection in 10g)	BP 2019, Vol. V, Appendix XVI B
	Staphylococcus aureus (Detection)	BP 2019, Vol. V, Appendix XVI B
	Pseudomonas *aeruginosa* (Detection)	BP 2019, Vol. V, Appendix XVI B
	Clostridia spp (Detection)	BP 2019, Vol. V, Appendix XVI B
	Candida albicans (Detection)	BP 2019, Vol. V, Appendix XVI B
	Burkholderia cepacia (Detection)	In-house Method (ML-55) Based On BP 2019, Vol. V, Appendix XVI B & HiMedia Manual
	Bile-tolerant Gram Negative Bacteria (Semi-Quantitative)	BP 2019, Vol. V, Appendix XVI F
	Escherichia coli (Detection / Semi-Quantitative)	BP 2019, Vol. V, Appendix XVI F
	Salmonella (Detection in 25 g)	BP 2019, Vol. V, Appendix XVI F
Medical Devices	Sterility Test	BP 2019, Vol. IV, Appendix XVIA

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water • Potable & Domestic water, Industrial water, Distilled / Demineralized water, Reverse Osmosis water, Ultrapure Water, Swimming Pool Water, Cooling Tower Water, Boiler Water, Surface Water, Mineral Water, Industrial Effluent, Treated Water, Dialysis Water	Heterotrophic Plate Count	APHA 9215 B (Pour Plate Method) APHA 9215 D (Membrane Filtration Method)
	Standard Total Coliform Count	APHA 9221 B (MPN Method) APHA 9222 B (Membrane Filtration Method)
	Escherichia coli Count	APHA 9221 F (MPN Method) APHA 9222 G (Membrane Filtration Method)
	Fecal Streptococci Count	APHA 9230 B (MPN Method) APHA 9230 C (Membrane Filtration Method)
	Pseudomonas aeruginosa Count	APHA 9213 E (Membrane Filtration Method)
	Fecal Coliform Count	APHA 9221 E (MPN Method)
	Yeast & Mould Count	APHA 9610 D (Membrane Filtration Method)
	Enumeration of Spores of Sulphite Reducing Anaerobes (Clostridia) including *Clostridium Perfringens*	AS/NZS 4276.17.1; 2000 (Membrane Filtration Method)
	Examination for *Legionellae* including *Legionella pneumophila* • Serogroup 1 • Serogroup 2-14 • Total *Legionella* • *Legionella spp.*	AS/NZS 3896: 1998
	Bacterial Endotoxin	In-house Method (ML-14) Based On USP 85 using Limulus Amebocyte Lysate (LAL) kit by Cape Cod
	Giardia/Cryptosporidium	In-house Method (ML-89) Based On EPA Method 1693 & Xpect® Giardia/Cryptosporidium Kit Manual

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Cosmetic Products • Liquid, Solid, Powder, Cream, Oil based, Aerosol, Soap & etc	Aerobic Plate Count Yeast Mould *Staphylococcus aureus* *Pseudomonas aeruginosa* Anaerobic Plate Count	FDA-BAM, 2001, Chapter 23
Environmental Sampling & Monitoring • Air (Sedimentation Method) • Surface Area, Equipment and Hand (Swab Contact Method)	Swab Contact Method • Aerobic Plate Count • Yeast • Mould • Coliform • *E. coli* • *Staphylococcus aureus* • *Salmonella* Sedimentation Method • Total Plate Count • Yeast • Mould	Compendium of Methods for the Microbiological Examination of Foods, 4th Ed, 2001
Sugar & Sugar Products	Total Mesophilic Bacterial Count Total Yeast & Mould Thermophilic Spore-forming Bacteria Flat Sours Spores Sulphides Spoilage Spores Thermophilic Gas-producing Anaerobes	MS 5: Part 2: 2006

Note:

- AOAC : Association of Official Analytical Chemists, 18th Edition, 2005 (Revision 3, 2010)
- APHA : American Public Health Association, Standard method for Examination of Water and Wastewater, 21st Edition, 2005
- AS : Australian Standard
- AS/NZS : Australian/New Zealand Standard
- BP : British Pharmacopeia. 2013 & 2019, Vol. V
- FDA-BAM : Food & Drug Administration-Bacteriological Analytical Manual
- ISO/TS : International Organization of Standardization/Technical Specification
- MS: Malaysian Standard
- GB: National Standard of the People's Republic of China National food safety standard

SCOPE OF TESTING: NUCLEIC ACID

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food • Raw meat • Processed meat • Cooking oil • Baking products • Dairy products • Nuts & Beans • Sesame • Corn • Coconut powder • Coffee & Tea, etc. **Environmental Swab**	Allergens • Gluten • Soy • Milk • Peanut • Egg • Fish • Celery • Sesame • Crustacean • Mollusc • Almond	In-house Method NA/FD/002 using Real-Time PCR In-house Method NA/FD/003 using Real-Time PCR In-house Method NA/FD/005 using Real-Time PCR In-house Method NA/FD/006 using Real-Time PCR In-house Method NA/FD/007 using Real-Time PCR In-house Method NA/FD/009 using Real-Time PCR In-house Method NA/FD/010 using Real-Time PCR In-house Method NA/FD/011 using Real-Time PCR In-house Method NA/FD/016 using Real-Time PCR In-house Method NA/FD/017 using Real-Time PCR In-house Method NA/FD/018 using Real-Time PCR
Fish	Tilapia Lake Virus (TiLV)	In-house Method, NA/FD/026, Using Real-time PCR

SCOPE OF TESTING: NUCLEIC ACID

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Cell culture	Mycoplasma	In-house Method, NA/PH/001, using Real-time PCR
Feed/Foods	Animal DNA Porcine	In-house Method, NA/FD/001, Using Real-time PCR
	Chicken	In-house Method, NA/FD/012, Using Real-time PCR
	Cattle	In-house Method, NA/FD/013, Using Real-time PCR
	Sheep	In-house Method, NA/FD/014, Using Real-time PCR
	Goat	In-house Method, NA/FD/015, Using Real-time PCR

SCOPE OF TESTING: NUCLEIC ACID

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Shrimp	White Spot Syndrome Virus (WSSV)	In-house Method NA/FD/004 using Real-Time PCR with IQ Real WSSV Detection Kit
		In-house Method NA/FD/027 using Real-Time PCR with Speedy Assay ShrimpCheck WSSV Detection Kit
	Yellow Head Virus (YHV)	In-house Method NA/FD/008 using Real-Time PCR with IQ Real YHV Detection Kit
		In-house Method NA/FD/028 using Real-Time PCR with Speedy Assay ShrimpCheck YHV Detection Kit
	Taura Syndrome Virus (TSV)	In-house Method, NA/FD/019, Using Real-time PCR with Speedy Assay ShrimpCheck TSV Detection Kit
	Infectious Myonecrosis Virus (IMNV)	In-house Method, NA/FD/020, Using Real-time PCR with Speedy Assay ShrimpCheck IMNV Detection Kit
	Infectious Hypodermal and Haematopoietic Necrosis Virus (IHHNV)	In-house Method, NA/FD/021, Using Real-time PCR with Speedy Assay ShrimpCheck IHHNV Detection Kit
	Acute Hepatopancreatic Necrosis Disease (AHPND)/Early Mortality Syndrome (EMS)	In-house Method, NA/FD/022, Using Real-time PCR with Speedy Assay ShrimpCheck EMS Detection Kit
	Decapod Iridescent Virus I (DIV1)/ Shrimp Haemocyte Iridescent Virus (SHIV)	In-house Method, NA/FD/023, Using Real-time PCR with Speedy Assay ShrimpCheck SHIV/DIV1 Detection Kit
	Necrotising Hepatopancreatitis (NHP)	In-house Method, NA/FD/024, Using Real-time PCR with MaxDetect Detection Kit

SCOPE OF TESTING: GENETIC MODIFIED ORGANISM

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Raw Material & Food • Cooking oil • Baking products • Biscuit & Chip • Nuts & Beans • Sesame • Corn • Coffee & Tea • Fruit	Identification of GMO (35S, NOS, FMV)	In-house Method GMO/FD/001 using Real-Time PCR

Appendix A: Veterinary Drugs

NO	GROUP	PARAMETER
1	PHENICOL	Chloramphenicol
		Florfenicol
		Thiamphenicol
2	BETA LACTAM	Amoxicillin
		Ampicillin
		Azlocillin
		Cefquinome
		Cloxacillin
		Dicloxacillin
		Nafcillin
		Oxacillin
		Penicillin G
		Piperacillin
3	TETRACYCLINES	Chlortetracycline
		Doxycycline
		Oxytetracycline
		Tetracycline
4	QUINOLONES	Ciprofloxacin
		Danofloxacin
		Difloxacin
		Enrofloxacin
		Flumequine
		Gatifloxacin
		Levofloxacin
		Marbofloxacin
		Moxifloxacin
		Nalidixic Acid
		Norfloxacin
		Ofloxacin
		Oxolinic acid
		Sarafloxacin
		Cinoxacin
5	MACROLIDES	Erythromycin A
		Josamycin
		Lincomycin
		Spiramycin
		Tilmicosin
		Tylosin
		Virginiamycin
		Tylvalosin
6	SULFONAMIDES	Sulfadiazine
		Sulfadimethoxine
		Sulfadimine
		Sulfamerazine
		Sulfamethoxazole
		Sulfamonomethoxine
		Sulfapyridine
		Sulfaquinoxaline
		Sulfathiazole
		Sulfadoxine
7	BETA AGONIST	Brombuterol
		Cimaterol
		Cimbuterol
		Clenbuterol
		Mabuterol
		Mapenterol
		Ractopamine
		Salbutamol
		Terbutaline
		Tulobuterol
		Zilpaterol
8	ANTHELMINTIC	2-amino-albendazole
		Albendazole
		Albendazole Sulfone
		Albendazole sulfoxide
		2-Aminoflubendazole
		Clorsulon
		Closantel
		Febantel
		Fenbendazole
		Flubendazole
		Levamisole
		Mebendazole
		Niclosamide
		Oxfendazole
		Oxibendazole
		Oxyclozanide
		Thiabendazole
		Triclabendazole
9	DYES	Malachite green
		Leucomalachite green
		Crystal violet
		Leucocrystal violet
10	COCCIDIOSTAT	Amprolium
		Decoquinate
		Ethopabate
		Robenidine
		Salinomycin
		Lasalocid A
11	TRANQUILIZERS	Azaperone
		Carazolol
12	ANTIBIOTICS	Carbadox
		Ceftiofur sodium
		Colistin A
		Colistin B
		Diminazene
		Isometamidium
		Monensin
		Ormetoprim
		Tiamulin
		Trimethoprim
		Valnemuline
13	AMINOGLYCOSIDES	Dihydrostreptomycin
		Gentamicin
		Maduramicin

		Neomycin
		Spectinomycin
		Streptomycin
		Fosfomycin
14	AVERMECTINS	Abamectin
		Doramectin
		Emamectin B1a
		Ivermectin
		Moxidectin
15	HORMONES	17α-methyltestosterone
		19-nortestosterone
		Boldenone
		Dienestrol
		Diethylsillbestrol
		Epi-Testosterone
		Estradiol
		Hexestrol
		Medroxyprogestrone
		Progestrone
		Testosterone
		Trenbolone
		Zeranol
		Stanozonol
		Danazol
		Methyltestosterone
		Methandienone
		Ethinylestradiol
		Estrone
		Stillbene

Appendix B: Pesticides (GC-MS/MS)

No.	Pesticides
1	1-Naphthylacetic acid
2	2,2' 5',2"-Terthiophene
3	2,3,5,6-Tetrachloroaniline
4	2,4,5-T methyl ester
5	2,4-D butyl ester
6	2,4-D-ethyl ester
7	2,4-D-methyl ester
8	2,6-Diisopropylnaphthalene
9	2-methyl-4,6-dinitrophenol
10	2-Phenylphenol
11	3,4-Dichloroaniline
12	3,4-Dichlorophenyl isocyanate
13	3,5-Dimethylpheny N-Methyl Carbamate
14	3-Hydroxycarbofuran
15	4,5,6,7-Tetrachloro phthalide
16	5,6-Dichloro-2-(trifluoromethyl)-1H-benzimidazole
17	8-Hydroxyquinoline
18	Acephate
19	Acequinocyl
20	Acetamiprid
21	Acetochlor
22	Acetophenone
23	Acetylaminofluorene, 2-
24	Acibenzolar-S-methyl
25	Acifluorfen-methyl
26	Aclonifen
27	Acrinathrin
28	Akton
29	Alachlor
30	Aldicarb
31	Aldrin
32	Allethrin
33	Allidochlor
34	Ametryn
35	Amidithion
36	Aminoanthraquinone, 2-
37	Aminoazobenzene, 4-
38	Aminobiphenyl, 4-
39	Aminocarb
40	Amisulbrom
41	Amitraz
42	Ancymidol
43	Anilazine
44	Aniline
45	Aniline, 5-chloro-2-methyl
46	Anilofos
47	Anisidine, o-
48	Anthraquinone
49	Aramite I
50	Aramite II
51	Aspon (Tetrapropyl thiodiphosphate)
52	Atraton
53	Atrazine
54	Atrazine-desethyl
55	Atrazine-desisopropyl
56	Azaconazole
57	Azamethiphos
58	Azinphos-ethyl
59	Azinphos-methyl
60	Aziprotryne
61	Azobenzene
62	Azoxystrobin
63	Barban
64	Beflubutamid
65	Benalaxyl
66	Benazolin-ethyl
67	Bendiocarb
68	Benfluralin
69	Benfuracarb
70	Benfuresate
71	Benodanil
72	Benoxacor
73	Bentazone
74	Benthiavalicarb-isopropyl
75	Benzoic acid
76	Benzoquinone, p-
77	Benzoximate
78	Benzoylprop-ethyl
79	Benzyl alcohol
80	Benzyl benzoate
81	Benzyladenine
82	BHC-alpha (benzene hexachloride)
83	BHC-beta
84	BHC-delta
85	BHC-epsilon
86	BHC-gamma (Lindane, gamma HCH)
87	Bifenazate
88	Bifenox
89	Bifenthrin
90	Binapacryl
91	Bioresmethrin (Resmethrin-trans)
92	Biphenyl
93	Bis(2-Chloroethyl)ether
94	Bitertanol I
95	Bitertanol II
96	Boscalid
97	Bromacil
98	Bromfenvinfos
99	Bromfenvinfos-(Z)
100	Bromfenvinfos-methyl
101	Bromobutide
102	Bromocyclen
103	Bromomethane
104	Bromophos

105	Bromophos-ethyl
106	Bromopropylate
107	Bromoxynil
108	Bromoxynil octanoic acid ester
109	Bromuconazole I
110	Bromuconazole II
111	Bufencarb
112	Bupirimate
113	Buprofezin
114	Buprofezin (Z-isomer)
115	Butachlor
116	Butafenacil
117	Butamifos
118	Butralin
119	Buturon
120	Butylate
121	Cadusafos
122	Cafenstrole
123	Captafol
124	Captan
125	Carbaryl
126	Carbetamide
127	Carbofuran
128	Carbofuran, 3-keto-
129	Carbofuran, 7-phenol-
130	Carbophenothion
131	Carbophenothion-Methyl
132	Carbosulfan
133	Carboxin
134	Carfentrazone-ethyl
135	Carvone
136	Chinomethionate (Oxythioquinox)
137	Chloramben-methyl
138	Chlorbenside
139	Chlorbenside sulfone
140	Chlorbicyclen
141	Chlorbromuron
142	Chlorbufam
143	Chlordane-cis
144	Chlordane-oxy
145	Chlordane-trans
146	Chlordecone
147	Chlordene
148	Chlordimeform
149	Chlorethoxyfos
150	Chlorfenapyr
151	Chlorfenethol
152	Chlorfenprop-methyl
153	Chlorfenson
154	Chlorfenvinphos
155	Chlorflurecol-methyl
156	Chloridazon (Pyrazon)
157	Chlormephos
158	Chlornitrofen
159	Chloroaniline, 4-
160	Chlorobenzilate
161	Chloroneb
162	Chlorophenol, 2-
163	Chlorophenyl phenyl ether, 4-
164	Chloropropylate
165	Chlorothalonil
166	Chlorotoluron
167	Chloroxuron
168	Chlorpropham
169	Chlorpyrifos
170	Chlorpyrifos oxon
171	Chlorpyrifos-methyl
172	Chlorthiamid
173	Chlorthion
174	Chlorthiophos
175	Chlozolinate
176	Cinidon-ethyl
177	Cinmethylin
178	cis-1,2,3,6-Tetrahydrophthalimide
179	Cismethrin (Resmethrin-cis)
180	Clodinafop-propargyl
181	Clomazone
182	Clomeprop
183	Cloquintocet-mexyl
184	Coumaphos
185	Coumatetralyl
186	Cresidine, p-
187	Crimidine
188	Crotoxyphos
189	Crufomate
190	Cyanazine
191	Cyanofenphos
192	Cyanophos
193	Cycloate
194	Cycluron
195	Cyenopyrafen
196	Cyflufenamid
197	Cyfluthrin I
198	Cyfluthrin II
199	Cyfluthrin III
200	Cyfluthrin IV
201	Cyhalofop-butyl
202	Cyhalothrin (Gamma)
203	Cyhalothrin (Lambda)
204	Cymiazole
205	Cypermethrin I
206	Cypermethrin II
207	Cypermethrin III
208	Cypermethrin IV
209	Cypermethrin, alpha-
210	Cypermethrin, beta-
211	Cyphenothrin I
212	Cyphenothrin II
213	Cyprazine
214	Cyproconazole

215	Cyprodinil
216	Cyprofuram
217	Cyromazine
218	Cythioate
219	Dazomet
220	DBCP (Dibromo-3-chloropropane, 1,2-)
221	DCPA (Dacthal, Chlorthal-dimethyl)
222	DDD-o,p'
223	DDD-p,p'
224	DDE-o,p'
225	DDE-p,p'
226	DDT-o,p'
227	DDT-p,p'
228	DEET
229	DEF
230	Deltamethrin
231	Deltamethrin II
232	Demeton-O
233	Demeton-S
234	Demeton-S-methyl
235	Demeton-S-methyl sulfon
236	Desmedipham
237	Desmetryn
238	Dialifos
239	Diallate I
240	Diallate II
241	Diaminotoluene, 2,4-
242	Diazinon
243	Diazinon-oxon
244	Dibenzofuran
245	Dibromobenzophenone, 4,4'-
246	Dicamba methyl ester
247	Dicapthon (Isochlorthion)
248	Dichlofenthion
249	Dichlofluanid
250	Dichlone
251	Dichloran
252	Dichlormid
253	Dichloroaniline, 3,5-
254	Dichlorobenzamide, 2,6-
255	Dichlorobenzene, 1,2-
256	Dichlorobenzene, 1,3-
257	Dichlorobenzene, 1,4-
258	Dichlorobenzonitrile, 2,6-
259	Dichlorobenzophenone, 4,4'-
260	Dichloronitrobenzene, 2,3-
261	Dichlorophenol, 2,4-
262	Dichlorprop-methyl
263	Dichlorvos
264	Diclobutrazol
265	Diclocymet I
266	Diclocymet II
267	Diclofop-methyl
268	Dicofol, o, p'-
269	Dicofol, p, p'-
270	Dicrotofos
271	Dieldrin
272	Diethatyl-ethyl
273	Diethofencarb
274	Difenoconazole I
275	Difenoconazole II
276	Difenoxuron
277	Diflufenican
278	Dimefox
279	Dimepiperate
280	Dimethachlor
281	Dimethametryn
282	Dimethenamid
283	Dimethenamid-P
284	Dimethipin
285	Dimethoate
286	Dimethomorph I
287	Dimethomorph II
288	Dimethylaminoazobenzene, 4-
289	Dimethylphenethylamine, a,a-
290	Dimethylphenol, 2,4- (2,4-xylenol)
291	Dimethylvinphos
292	Dimetilan
293	Dimoxystrobin
294	Diniconazole
295	Dinitramine
296	Dinitrobenzene, 1,3-
297	Dinitrotoluene, 2,4-
298	Dinitrotoluene, 2,6-
299	Dinobuton
300	Dinocap I
301	Dinocap II
302	Dinocap III
303	Dinoseb
304	Dinoseb acetate
305	Dinoterb
306	Dinoterb acetate
307	Diofenolan I
308	Diofenolan II
309	Dioxabenzofos
310	Dioxacarb
311	Dioxathion
312	Diphacinone
313	Diphenamid
314	Diphenylamine
315	Dipropetryn
316	Disulfoton
317	Disulfoton sulfone
318	Disulfoton-sulfoxide
319	Ditalimfos
320	Dithiopyr
321	Diuron
322	DMSA
323	DMST (Tolylfluanid metabolite)
324	Dodemorph I

325	Dodemorph II
326	Drazoxolon
327	Edifenphos
328	Empenthrin I
329	Empenthrin II
330	Empenthrin III
331	Empenthrin IV
332	Endosulfan
333	Endosulfan ether
334	Endosulfan I (alpha isomer)
335	Endosulfan II (beta isomer)
336	Endosulfan sulfate
337	Endothal
338	Endrin
339	Endrin aldehyde
340	Endrin ketone
341	EPN
342	Epoxiconazole
343	EPTC
344	Erbon
345	Esbiothrin
346	Esfenvalerate
347	Esprocarb
348	Etaconazole I (α)
349	Etaconazole I (β)
350	Ethalfluralin
351	Ethiofencarb
352	Ethiolate
353	Ethion
354	Ethiozin
355	Ethofenprox
356	Ethofumesate
357	Ethofumesate, 2-keto-
358	Ethoprophos
359	Ethoxyquin
360	Ethychlozate
361	Ethylan
362	Etoxazole
363	Etridiazole
364	Etrimfos
365	Eugenol
366	Famoxadone
367	Famphur
368	Fenamidone
369	Fenamiphos
370	Fenamiphos sulfone
371	Fenamiphos-sulfoxide
372	Fenarimol
373	Fenazaflor
374	Fenazaquin
375	Fenbuconazole
376	Fenchlorazole-ethyl
377	Fenchlorphos oxon
378	Fenclorim
379	Fenfluthrin
380	Fenfuram
381	Fenhexamid
382	Fenitrothion
383	Fenobucarb
384	Fenoprop-methyl
385	Fenothiocarb
386	Fenoxanil
387	Fenoxaprop-ethyl
388	Fenoxaprop-P-ethyl
389	Fenoxycarb
390	Fenpiclonil
391	Fenpropathrin
392	Fenpropidin
393	Fenpropimorph
394	Fenpyroximate
395	Fenson
396	Fensulfothion
397	Fensulfothion sulfon
398	Fenthion
399	Fenthion oxon sulfone
400	Fenthion sulfone
401	Fenthion sulfoxide
402	Fenuron
403	Fenvalerate I
404	Fenvalerate II
405	Ferimzone
406	Fipronil
407	Fipronil sulfide
408	Fipronil sulfone
409	Flamprop-isopropyl
410	Flamprop-methyl
411	Fluacrypyrim
412	Fluazifop
413	Fluazifop-butyl
414	Fluazifop-p-butyl
415	Flubenzimine
416	Fluchloralin
417	Flucythrinate I
418	Flucythrinate II
419	Fludioxonil
420	Flufenacet
421	Flumetralin
422	Flumiclorac-pentyl
423	Flumioxazin
424	Fluometuron
425	Fluorene
426	Fluorochloridone
427	Fluorodifen
428	Fluoroglycofen-ethyl
429	Fluoroimide
430	Fluotrimazole
431	Fluquinconazole
432	Flurenol-butyl
433	Flurenol-methyl ester
434	Fluridone

435	Fluroxypyr-1-methylheptyl
436	Flurprimidol
437	Flurtamone
438	Flusilazole
439	Fluthiacet-methyl
440	Flutolanil
441	Flutriafol
442	Fluvalinate I
443	Fluvalinate II
444	Fluvalinate-tau I
445	Fluvalinate-tau II
446	Fluxapyroxad
447	Folpet
448	Fonofos
449	Formothion
450	Fosthiazate I
451	Fosthiazate II
452	Fuberidazole
453	Furalaxyl
454	Furametpyr
455	Furathiocarb
456	Furilazole
457	Furmecyclox
458	Genite
459	Halfenprox
460	Haloxyfop-2-ethoxyethyl
461	Haloxyfop-methyl
462	haloxyfop-r-methyl
463	Heptachlor
464	Heptachlor endo-epoxide
465	Heptachlor exo-epoxide
466	Heptenophos
467	Hexachlorobenzene
468	Hexachlorobutadiene
469	Hexachloroethane
470	Hexachloropropene
471	Hexaconazole
472	Hexamethylphosphoramide
473	Hexazinone
474	Hydroprene
475	Hydroquinone
476	Imazalil
477	Imazamethabenz (free acid)
478	Imazamethabenz-methyl
479	Imibenconazole
480	Imibenconazole-desbenzyl
481	Imiprothrin I
482	Imiprothrin II
483	Indoxacarb
484	Iodofenphos
485	Ioxynil
486	Ioxynil octanoate
487	Ipconazole
488	Iprobenfos
489	Iprodione
490	Iprovalicarb I
491	Iprovalicarb II
492	Irgarol
493	Isazofos
494	Isobenzan
495	Isobornyl thiocyanoacetate
496	Isocarbamid
497	Isocarbophos
498	Isodrin
499	Isofenphos
500	Isofenphos oxon
501	Isofenphos-methyl
502	Isomethiozin
503	Isophorone
504	Isoprocarb I
505	Isoprocarb II
506	Isopropalin
507	Isoprothiolane
508	Isoproturon
509	Isopyrazam
510	Isosafrole
511	Isoxaben
512	isoxadifen-ethyl
513	Isoxathion
514	Jasmone I
515	Jasmone II
516	Kadethrin
517	Kelevan
518	Kinoprene
519	Kresoxim-methyl
520	Lactofen
521	Lenacil
522	Leptophos
523	Linuron
524	Lufenuron
525	Malaoxon
526	Malathion
527	MCPA-butoxyethyl
528	MCPA-methyl
529	MCPB-methyl
530	Mecarbam
531	Mefenacet
532	Mefenoxam
533	Mefenpyr-diethyl
534	Mefluidide
535	Menazon
536	Mepanipyrim
537	Mephosfolan
538	Mepronil
539	Merphos
540	Metalaxyl
541	Metamitron
542	Metazachlor
543	Metconazole
544	Methabenzthiazuron

545	Methacrifos
546	Methamidophos
547	Methanesulfonate-ethyl
548	Methanesulfonate-methyl
549	Methapyrilene
550	Methfuroxam
551	Methidathion
552	Methiocarb
553	Methiocarb sulfone
554	Methiocarb sulfoxide
555	Methoprene
556	Methoprotryne
557	Methoxychlor olefin
558	Methoxychlor, o,p'-
559	Methoxychlor, p,p'-
560	Methyl-1-naphthalene acetate
561	Methylphenol, 2-
562	Methylphenol, 3-
563	Methylphenol, 4-
564	Metobromuron
565	Metolachlor
566	Metolachlor, S-
567	Metolcarb
568	Metominostrobin (E)
569	Metominostrobin (Z)
570	Metrafenone
571	Metribuzin
572	Mevinphos, E-
573	Mevinphos, Z-
574	Mexacarbate
575	MGK-264
576	MGK-326
577	Mirex
578	Molinate
579	Monalide
580	Monocrotophos
581	Monolinuron
582	Monuron
583	Moskene
584	Musk ambrette (artificial)
585	Musk Ambrette (natural)
586	Musk ketone
587	Musk tibetene
588	Musk xylene
589	Myclobutanil
590	N-(2,4-dimethylphenyl)formamide
591	Naled
592	Naphthalene
593	Naphthaleneacetamide, 1-
594	Naphthalenol, 1-
595	Naphthalic anhydride
596	Naphthoquinone, 1,4-
597	Naphthylamine, 1-
598	Naphthylamine, 2-
599	Naproanilide
600	Napropamide
601	Nicotine
602	Nitralin
603	Nitrapyrin
604	Nitroaniline, 2-
605	Nitroaniline, 3-
606	Nitroaniline, 4-
607	Nitrobenzene
608	Nitrofen
609	Nitrophenol, 2-
610	Nitrophenol, 4-
611	Nitroquinoline-1-oxide, 4-
612	Nitrothal-isopropyl
613	Nonachlor, cis-
614	Nonachlor, trans-
615	Norflurazon
616	Norflurazon-Desmethyl
617	Noruron
618	Novaluron
619	Nuarimol
620	Octachlorodipropyl ether
621	Octachlorostyrene
622	Octhilinone
623	Ofurace
624	Omethoate
625	Orbencarb
626	Oryzalin
627	Oxabetrinil
628	Oxadiazon
629	Oxadixyl
630	Oxamyl
631	Oxycarboxin
632	Oxydementon methyl
633	Oxydianiline, 4,4'-
634	Oxyfluorfen
635	Paclobutrazol
636	Paraoxon
637	Paraoxon-methyl
638	Parathion
639	Parathion-methyl
640	Pebulate
641	Penconazole
642	Pendimethalin
643	Pentachloroaniline
644	Pentachloroanisole
645	Pentachlorobenzene
646	Pentachlorobenzonitrile
647	Pentachloronitrobenzene
648	Pentachlorophenol
649	Pentachlorothioanisole
650	Pentanochlor
651	Pentoxazone
652	Permethrin, (1R)-cis-
653	Permethrin, (1R)-trans-
654	Phenkapton

655	Phenmedipham
656	Phenol
657	Phenol, 4-chloro-3-methyl-
658	Phenothiazine
659	Phenothrin I
660	Phenothrin II
661	Phenthoate
662	Phorate
663	Phorate oxon sulfone
664	Phorate sulfone
665	Phorate Sulfoxide
666	Phorate sulfoxide oxon
667	Phoratoxon
668	Phosalone
669	Phosfolan
670	Phosmet
671	Phosmet oxon
672	Phosphamidon I
673	Phosphamidon II {CAS # 13171-21-6}
674	Phosphorothioate, O,O,O-triethyl-
675	Phthalic anhydride
676	Phthalide
677	Phthalimide
678	Phthalimidoacetic acid
679	Picloram-methyl
680	Picolinafen
681	Picoxystrobin
682	Pindone
683	Piperalin
684	Piperonyl butoxide
685	Piperophos
686	Pirimicarb
687	Pirimiphos-ethyl
688	Pirimiphos-methyl
689	Plifenate
690	Prallethrin
691	Pretilachlor
692	Probenazole
693	Prochloraz
694	Procymidone
695	Prodiamine
696	Profenofos
697	Profluralin
698	Prohydrojasmon
699	Promecarb
700	Prometon
701	Prometryn
702	Propachlor
703	Propamocarb
704	Propanil
705	Propaphos
706	Propaquizafop
707	Propargite
708	Propazine
709	Propetamphos
710	Propham
711	Propiconazole I
712	Propiconazole II
713	Propisochlor
714	Propoxur
715	Propyzamide
716	Prosulfocarb
717	Prothioconazole-Desthio
718	Prothiofos
719	Prothoate
720	Pymetrozine
721	Pyracarbolid
722	Pyraclofos
723	Pyraclostrobin
724	Pyraflufen-ethyl
725	Pyrazophos
726	Pyrethrin I
727	Pyrethrin II
728	Pyrethrin III
729	Pyrethrin IV
730	Pyrethrin V
731	Pyributicarb
732	Pyridaben
733	Pyridalyl
734	Pyridaphenthion
735	Pyridate
736	Pyridinitril
737	Pyrifenox I
738	Pyrifenox II
739	Pyrifluquinazon
740	Pyriftalid
741	Pyrimethanil
742	Pyrimidifen
743	Pyriminobac-methyl
744	Pyrimitate
745	Pyriproxyfen
746	Pyroquilon
747	Quinalphos
748	Quinoclamine
749	Quinoxyfen
750	Quizalofop-ethyl
751	Rabenzazole
752	Resmethrin
753	Resorcinol
754	Ronnel
755	Safrole
756	S-Bioallethrin
757	Schradan
758	Sebuthylazine
759	Sebuthylazine-desethyl
760	Secbumeton
761	Sethoxydim
762	Silafluofen
763	Simazine
764	Simeconazole

765	Simeton
766	Simetryn
767	Spirodiclofen
768	Spiromesifen
769	Spiroxamine I
770	Spiroxamine II
771	Succinate-dibutyl
772	Sulfallate
773	Sulfentrazone
774	Sulfotep
775	Sulprofos
776	Swep
777	TCMTB
778	Tebuconazole
779	Tebufenpyrad
780	Tebupirimfos
781	Tebutam
782	Tebuthiuron
783	Tecnazene
784	Tefluthrin
785	Temephos
786	Terbacil
787	Terbucarb
788	Terbufos
789	Terbufos sulfone
790	Terbumeton
791	Terbumeton-desethyl
792	Terbuthylazine
793	Terbuthylazine-desethyl
794	Terbutryn
795	Tetrachlorobenzene, 1,2,3,4-
796	Tetrachlorobenzene, 1,2,3,5-
797	Tetrachlorobenzene, 1,2,4,5-
798	Tetrachlorophenol, 2,3,4,6-
799	Tetrachlorvinphos
800	Tetrachlorvinphos, E-isomer
801	Tetraconazole
802	Tetradifon
803	Tetraethylpyrophosphate
804	Tetramethrin I
805	Tetramethrin II {CAS # 7696-12-0}
806	Tetrasul
807	Thenylchlor
808	Thiabendazole
809	Thiazopyr
810	Thifluzamide
811	Thiocyclam Hydrogenoxalate (as Thiocyclam)
812	Thiofanox
813	Thiometon
814	Thionazin
815	Thiophenol
816	Thymol
817	Tiocarbazil I
818	Tiocarbazil II

819	Tolclofos-methyl
820	Tolfenpyrad
821	Toluene Diisocyanate
822	Toluidine, o-
823	Tolylfluanid
824	Tralkoxydim
825	Transfluthrin
826	Triadimefon
827	Triadimenol
828	Triallate
829	Triamiphos
830	Triapenthenol
831	Triazamate
832	Triazophos
833	Tribromoanisole, 2,4,6-
834	Tribromophenol, 2,4,6-
835	Trichlamide
836	Trichlorfon
837	Trichlorobenzene, 1,2,3-
838	Trichlorobenzene, 1,2,4-
839	Trichloronat
840	Trichlorophenol, 2,4,5-
841	Trichlorophenol, 2,4,6-
842	Triclopyr methyl ester
843	Triclopyr-2-butoxyethyl ester
844	Triclosan
845	Tricyclazole
846	Tridiphane
847	Trietazine
848	Trifenmorph
849	Trifloxystrobin
850	Triflumizole
851	Triflumizole E
852	Trifluormethylaniline, 3-
853	Trifluralin
854	Trimethacarb, 2,3,5-
855	Trimethacarb, 3,4,5-
856	Trimethyl phosphate
857	Trimethylaniline, 2,4,5-
858	Tri-n-butyl phosphate
859	Trinexapac-ethyl
860	Triphenyl phosphate
861	Triphenylmethane
862	Tri-p-tolyl phosphate
863	Tris(2-butoxyethyl) phosphate
864	Triticonazole
865	Uniconazole
866	Uniconazole-P
867	Valone
868	Vamidothion
869	Vernolate
870	Vinclozolin
871	Warfarin
872	Zoxamide

Appendix C: Pesticides (LC-MS/MS)

No	Pesticides
1	2,3,6-Trichlorobenzoic acid
2	2,4-D
3	2,4-DB
4	2,4,5-T
5	2,4,5-TP
6	3,4,5-Trimethacarb
7	Abamectin
8	Acephate
9	Acetamiprid
10	Acetochlor
11	Acibenzolar-S-methyl
12	Acifluorfen
13	Aclonifen
14	Acrinathrin
15	Alachlor
16	Alanycarb
17	Aldimorph
18	Allidochlor
19	Alpha-chlorfenvinphos (E)
20	Ametoctradin
21	Ametryn
22	Amidithion
23	Amidosulfuron
24	Aminocarb
25	Aminopyralid
26	Amisulbrom
27	Amitraz
28	Amitrole
29	Anilazine
30	Anilofos
31	Aramite
32	Aspon
33	Asulam
34	Athiadathion
35	Atraton
36	Atrazine
37	Azaconazole
38	Azadirachtin
39	Azafenidin
40	Azamethiphos
41	Azimsulfuron
42	Azinphos-ethyl
43	Azinphos-methyl
44	Aziprotryne
45	Azoxystrobin
46	Benalaxyl
47	Bendiocarb
48	Benfluralin
49	Benfuracarb
50	Benodanil
51	Benomyl
52	Bensulfuron-methyl
53	Bensulide
54	Bensultap
55	Bentazone
56	Benthiavalicarb
57	Benthiavalicarb-isopropyl
58	Benzofenap
59	Benzoylprop-ethyl
60	Bifenazate
61	Bifenox
62	Bifenthrin
63	Binapacryl
64	Bioallethrin
65	Bioresmethrin
66	Bispyribac
67	Bistrifluron
68	Bitertanol
69	Boscalid
70	Brodifacoum
71	Bromacil
72	Bromfenvinfos-Ethyl
73	Bromobutide
74	Bromophos-ethyl
75	Bromophos-methyl
76	Bromoxynil
77	Brompyrazone
78	Bromuconazole
79	Bupirimate
80	Buprofezin
81	Butachlor
82	Butafenacil
83	Butamifos
84	Butoxycarboxim
85	Butralin
86	Buturon
87	Butylate
88	Cadusafos
89	Cafenstrole
90	Captafol
91	Carbaryl
92	Carbendazim
93	Carbetamide
94	Carbofuran
95	Carbophenothion
96	Carbosulfan
97	Carboxin
98	Carfentranzone
99	Carfentrazone-ethyl
100	Carpropamide
101	Chlorantraniliprole
102	Chlorbromuron
103	Chlorbufam
104	Chlordimeform
105	Chlorfenvinphos

106	Chlorfluazuron
107	Chloridazon
108	Chlorimuron-ethyl
109	Chlormephos
110	Chlorothalonil
111	Chlorotoluron
112	Chloroxuron
113	Chlorphoxim
114	Chlorpropham
115	Chlorpyrifos
116	Chlorpyrifos-methyl
117	Chlorsulfuron
118	Chlorthiamide
119	Chlorthion
120	Chlorthiophos
121	Chromafenozide
122	Cinidon-ethyl
123	Cinmethylin
124	Clethodim
125	Clodinafop-Propargyl
126	Clomazone
127	Clomeprop
128	Clopyralid
129	Cloquintocet-mexyl
130	Cloransulam-methyl
131	Clothianidin
132	Coumaphos
133	Cumyluron
134	Cyanazine
135	Cyanofenphos
136	Cyanophos
137	Cyazofamid
138	Cycloate
139	Cycloprothrin
140	Cycloxydim
141	Cycluron
142	Cyflufenamid
143	Cyfluthrin
144	Cyhalofop butyl
145	Cyhalothrin
146	Cymoxanil
147	Cyprazine
148	Cyprodinil
149	Cyromazine
150	Cythioate
151	Dacthal
152	Daimuron
153	DCPA
154	Demeton-O
155	Demeton-S
156	Demeton-S-methyl
157	Desethylatrazine
158	Desmedipham
159	Desmetryn
160	Diafenthiuron

161	Dialifos
162	Diallate
163	Diazinon
164	Dibrom
165	Dibutyl succinate
166	Dicamba
167	Dicapthon
168	Dichlofenthion
169	Dichlofluanide
170	Dichlormide
171	Dichlofenthion
172	Dichlorphen
173	Dichlorprop
174	Dichlorvos
175	Diclobutrazol
176	Diclosulam
177	Dicrotophos
178	Diethofencarb
179	Difenoconazole
180	Difenoxuron
181	Diflubenzuron
182	Diflufenican
183	Dimefox
184	Dimefuron
185	Dimepiperate
186	Dimethachlor
187	Dimethametryn
188	Dimethenamide
189	Dimethirimol
190	Dimethoate
191	Dimethomorph (1)
192	Dimethyl phthalate
193	Dimethylvinphos
194	Dinitramine
195	Dinoseb
196	Dinotefuran
197	Dinoterb
198	Diofenolan
199	Dioxabenzofos
200	Dioxacarb
201	Dioxathion
202	Disodium methyl arsonate (DSMA)
203	Disulfoton
204	Ditalimfos
205	Dithianon
206	Dithiocarbamates
207	Dithiopyr
208	Diuron
209	DNOC
210	Dodemorph
211	Dodine
212	Dymron
213	Edifenphos
214	Emamectin benzoate
215	EPN

216	Epoxiconazole
217	Eprinomectin B1a
218	EPTC
219	Esfenvalerate
220	Esprocarb
221	Etaconazole
222	Ethidimuron
223	Ethiofencarb
224	Ethion
225	Ethiprole
226	Ethirimol
227	Ethofenprox
228	Ethofumesate
229	Ethoprophos
230	Ethoxysulfuron
231	Etobenzanid
232	Etridiazole
233	Etrimfos
234	Famoxadon
235	Famphur
236	Fenamidone
237	Fenarimol
238	Fenbuconazole
239	Fenfuram
240	Fenhexamid
241	Fenitrothion
242	Fenobucarb
243	Fenoxanil
244	Fenoxaprop
245	Fenoxaprop-ethyl
246	Fenoxycarb
247	Fenpiclonil
248	Fenpropathrin
249	Fenpropidin
250	Fenpropimorph
251	Fensulfothion
252	Fenthion
253	Fentin
254	Fentrazamid
255	Fenuron
256	Fenvalerate
257	Ferimzone
258	Fipronil
259	Flamprop-isopropyl
260	Flamprop-methyl
261	Flazasulfuron
262	Flonicamid
263	Florasulam
264	Fluazifop
265	Fluazifop-butyl
266	Flubendiamide
267	Flucarbazone
268	Flucetosulfuron
269	Fluchloralin
270	Flucycloxuron

271	Flucythrinate
272	Fludioxonil
273	Flufenacet
274	Flufenoxuron
275	Flumetsulam
276	Flumiclorac-pentyl
277	Flumioxazin
278	Fluometuron
279	Fluopicolide
280	Fluopyram
281	Fluorochloridone
282	Fluoroglycofen
283	Fluoroglycofen-ethyl
284	Fluotrimazole
285	Fluoxastrobin
286	Flupyrsulfuron-methyl
287	Fluquinconazole
288	Fluridone
289	Fluroxypyr
290	Flurtamone
291	Flutolanil
292	Flutriafol
293	Fluvalinate
294	Fomesafen
295	Fonofos
296	Foramsulfuron
297	Formothion
298	Fuberidazole
299	Furalaxyl
300	Furametpyr
301	Furathiocarb
302	Furmecyclox
303	Glyphosate
304	Haloxyfop
305	Heptenophos
306	Hexaconazole
307	Hexaflumuron
308	Hexazinone
309	Hydramethylnon
310	Imazalil
311	Imazamethabenz-methyl
312	Imazamox
313	Imazapic
314	Imazapyr
315	Imazaquin
316	Imazethapyr
317	Imibenconazole
318	Imidacloprid
319	Iminoctadine triacetate
320	Imiprothrin
321	Indanofan
322	Indaziflam
323	Indoxacarb
324	Iodofenphos
325	Iodosulfuron-methyl

326	Ioxynil
327	Ipconazole
328	Iprobenfos
329	Iprodione
330	Iprovalicarb
331	Isazofos
332	Isocarbamide
333	Isocarbophos
334	Isofenphos
335	Isomethiozin
336	Isoprocarb
337	Isopropalin
338	Isoprothiolane
339	Isoproturon
340	Isouron
341	Isoxaben
342	Isoxadifen-ethyl
343	Isoxaflutole
344	Isoxathion
345	Jasmolin (1)
346	Jasmolin (2)
347	Kadethrin
348	Karbutilate
349	Kresoxim methyl
350	Lactofen
351	Lenacil
352	Leptophos
353	Linuron
354	Lufenuron
355	Malaoxon
356	Malathion
357	MCPA
358	MCPB
359	Mecoprop
360	Mefenacet
361	Mefenpyr-diethyl
362	Mepanipyrim
363	Mephosfolan
364	Mepronil
365	Mesosulfuron-methyl
366	Mesotrione
367	Metalaxyl
368	Metamitron
369	Metazachlor
370	Metconazole
371	Methabenzthiazuron
372	Methacrifos
373	Methamidophos
374	Methfuroxam
375	Methidathion
376	Methiocarb
377	Methoprene
378	Methoprotryne
379	Methothrin
380	Methoxyfenozide

381	Metobromuron
382	Metolachlor
383	Metolcarb
384	Metominostrobin (E)
385	Metominostrobin (Z)
386	Metosulam
387	Metoxuron
388	Metrafenone
389	Metribuzin
390	Metsulfuron methyl
391	Mevinphos
392	Mexacarbate
393	Milbemycin A3
394	Milbemycin A4
395	Molinate
396	Monalide
397	Monocrotophos
398	Monolinuron
399	Monuron
400	Moxidectin
401	Myclobutanil
402	Naproanilide
403	Napropamide
404	Naptalam
405	Neburon
406	Nicosulfuron
407	Nitenpyram
408	Nitralin
409	Norflurazon
410	Novaluron
411	Nuarimol
412	Ofurace
413	Omethoate
414	Orthosulfamuron
415	Oryzalin
416	Oxabetrinil
417	Oxadiazon
418	Oxadixyl
419	Oxamyl
420	Oxamyl-oxime
421	Oxasulfuron
422	Oxaziclomefone
423	Oxycarboxin
424	Oxyfluorfen
425	Paraoxon-ethyl
426	Paraquat
427	Parathion-ethyl
428	Pebulate
429	Penconazole
430	Pencycuron
431	Pendimethalin
432	Pentoxazone
433	Phenmedipham
434	Phenothrin
435	Phenthoate

436	Phorate
437	Phosfolan
438	Phosmet
439	Phosphamidon
440	Phoxim
441	Picloram
442	Picolinafen
443	Picoxystrobin
444	Pinoxaden
445	Piperophos
446	Pirimicarb
447	Pirimiphos-ethyl
448	Pirimiphos-methyl
449	Prallethrin
450	Pretilachlor
451	Primisulfuron-methyl
452	Prochloraz
453	Procymidone
454	Profluralin
455	Promecarb
456	Prometon
457	Prometryn
458	Pronamide
459	Propachlor
460	Propamocarb
461	Propanil
462	Propaphos
463	Propaquizafop
464	Propazine
465	Propetamphos
466	Propiconazole
467	Propoxur
468	Propyrisulfuron
469	Propyzamide (Pronamide)
470	Proquinazid
471	Prosulfocarb
472	Prosulfuron
473	Prothioconazole
474	Prothiofos
475	Prothoate
476	Pyracarbolid
477	Pyraclofos
478	Pyraclostrobin
479	Pyraflufen Ethyl
480	Pyrazolynate
481	Pyrazophos
482	Pyrazosulfuron-ethyl
483	Pyrazoxyfen
484	Pyribenzoxim
485	Pyributicarb
486	Pyridaben
487	Pyridafenthion
488	Pyridalyl
489	Pyridate
490	Pyrifenox

491	Pyriftalid
492	Pyrimethanil
493	Pyrimidifen
494	Pyriminobac methyl(E)
495	Pyrimitate
496	Pyriproxyfen
497	Pyroquilon
498	Pyrzolynate
499	Qinoclamine
500	Quinmerac
501	Quinomethionate
502	Quinoxyfen
503	Quizalofop
504	Quizalofop-ethyl
505	Rabenzazole
506	Resmethrin
507	Rimsulfuron
508	Ronnel
509	Rotenone
510	Sebuthylazine
511	Secbumeton
512	Siduron
513	Silafluofen
514	Simazine
515	Simeconazole
516	Simeton
517	Simetryn
518	Spinetoram
519	Spinosad A
520	Spinosyn D
521	Spiromesifen
522	Spiroxamine
523	Sulcotrione
524	Sulfallate
525	Sulfentrazone
526	Sulfometuron-methyl
527	Sulfosulfuron
528	Sulfotep
529	Sulprofos
530	Tau-fluvalinate
531	TCMTB
532	Tebuconazole
533	Tebufenoxide
534	Tebufenpyrad
535	Tebupirimfos
536	Tebutam
537	Tebuthiuron
538	Teflubenzuron
539	Tefluthrin
540	Temephos
541	TEPP-A
542	Tepraloxydim
543	Terbacil
544	Terbucarb
545	Terbufos

546	Terbumeton
547	Terbuthylazine
548	Terbutryn
549	Tetraconazole
550	Tetramethrin
551	Thenylchlor
552	Thiabendazole
553	Thiacloprid
554	Thiamethoxam
555	Thiazopyr
556	Thidiazuron
557	Thifensulfuron-methyl
558	Thifluzamide
559	Thiobencarb
560	Thiocyclam
561	Thiodicarb
562	Thiofanox
563	Thiometon
564	Thionazin
565	Thiophanate
566	Thiophanate-methyl
567	Thiosultap
568	Thiram
569	Tolclofos-methyl
570	Tolfenpyrad
571	Tolylfluanid
572	Topramezone
573	Tralkoxydim
574	Transfluthrin
575	Triadimefon
576	Triadimenol
577	Triallate
578	Triamiphos
579	Triasulfuron

580	Triazamate
581	Triazoxide
582	Tribenuron-methyl
583	Tributylphosphate
584	Trichlamide
585	Trichlorfon
586	Trichloronate
587	Triclocarban
588	Triclopyr
589	Tricyclazole
590	Tridemorph
591	Trietazine
592	Trifloxystrobin
593	Triflumizol
594	Triflumizole
595	Triflumuron
596	Triflusulfuron-methyl
597	Triforine
598	Triphenyl Phosphate
599	Uniconazole
600	Vamidothion
601	Vernolate
602	Vinclozolin
603	XMC
604	Xylylcarb
605	Zoxamide
606	Fenbutatin oxide
607	Metaflumizone
608	Fluensulfone
609	Mandestrobin
610	Pyroxasulfone
611	Chlorfenapyr

Appendix D: Polycyclic Aromatic Hydrocarbon (PAH)

NO	COMPOUNDS
1	Perylene
2	Naphthalene
3	Quinoline
4	2-methylnaphthalene
5	1-methylnaphthalene
6	2-chloronaphthalene
7	1-chloronaphthalene
8	Acenaphthylene
9	Acenaphthene
10	Fluorene
11	Phenanthrene
12	Anthracene
13	Acridine
14	Fluoranthene
15	Pyrene
16	Benzo(a)anthracene
17	Chrysene
18	Benzo(b)fluoranthene
19	Benzo(k)fluoranthene
20	Benzo(j)fluoranthene
21	Benzo(e)pyrene
22	Benzo(a)pyrene
23	Indenol[1,2,3-cd]pyrene
24	Dibenz[a,h]anthracene
25	Benzo[g,h,i]perylene
26	Cyclopenta[c,d]pyrene
27	5-Methylchrysene
28	Dibenzo[a,l]pyrene
29	Dibenzo[a,h]pyrene
30	Dibenzo[a,e]pyrene
31	Dibenzo[a,i]pyrene
32	7H-Benzo(c)fluorene
33	Anthanthrene
34	Coronene
35	Benzo(b)naptho[2,1-d]thiophene

Appendix E: Per- and polyfluoroalkyl substances (PFAS)

NO	COMPOUNDS	IUPAC NAME
1	PFBA	Perfluorobutyric acid
2	PFPeA	Perfluoropentanoic acid
3	PFHxA	Perfluorohexanoic acid
4	PFHpA	Perfluoroheptanoic acid
5	PFOA	Perfluoro-n-octanoic acid
6	PFNA	Perfluorononanoic acid
7	PFDA	Perfluorodecanoic acid
8	PFUA	Perfluoroundecanoic acid
9	PFDoA	Perfluorododecanoic acid
10	PFTrDA	Perfluorotridecanoic acid
11	PFTeDA	Perfluorotetradecanoic acid
12	PFHxDA	Perfluorohexadecanoic acid
13	PFODA	Perfluorooctadecanoic acid
14	PFBS	Perfluorobutanesulfonate
15	PFPeS	Perfluoropentanesulfonate
16	PFHxS	Perfluorohexanesulfonate
17	PFHpS	Perfluoroheptanesulfonate
18	PFOS	Perfluoro-1-octanesulfonate
19	PFDS	Perfluorodecanesulfonate
20	4:2 FTS	1H,1H,2H,2H-Perfluorohexanesulfonate
21	6:2 FTS	1H,1H,2H,2H-Perfluorooctanesulfonate
22	8:2 FTS	1H,1H,2H,2H-Perfluorodecanesulfonate
23	10:2 FTS	1H,1H,2H,2H-Perfluorododecanesulfonate
24	PFOSA	Perfluorooctanesulfonamide
25	N-MeFOSA	N-Methylperfluorooctanesulfonamide
26	N-MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid
27	N-EtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid
28	8:2-DiPAP	Bis(1H,1H,2H,2H-Perfluorodecyl)phosphate
29	N-EtFOSA	N-Ethylperfluorooctanesulfonamide
30	N-MeFOSE	N-Methylperfluorooctanesulfonamidoethanol
31	N-EtFOSE	N-Ethylperfluorooctanesulfonamidoethanol
32	HFPO-DA	"GenX" (tetrafluoro-2-(heptafluoropropoxy)propanoic acid)
33	9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid, potassium salt
34	11Cl-PF3OUdS	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid, potassium salt
35	PFMPA	Perfluoro-3-methoxypropanoic acid
36	PFMBA	Perfluoro-4-methoxybutanoic acid
37	PFEESA	Perfluoro(2-ethoxyethane) sulfonic acid
38	DONA	Dodecafluoro-3H-4,8-dioxanonanoic acid

Appendix F: Nitrosamine

NO	PARAMETERS	ACRONYM	CAS NO.
1	N-Nitrosodimethylamine	NDMA	62-75-9
2	N-Nitrosodiethylamine	NDEA	55-18-5
3	N-Nitrosopiperidine	NPIP	100-75-4
4	N-Nitrosopyrrolidine	NPYR	930-55-2
5	N-Nitrosomorpholine	NMOR	59-89-2
6	N-Nitrosodi-N-Butylamine	NDBA	924-16-3
7	N-Nitroso-N-Methylethylamine	NMEA	10595-95-6
8	N-Nitrosodi-N-Propylamine	NDPA	621-64-7
9	Nitrosodiisopropylamine	NDIPA	601-77-4
10	Nitrosoethylisopropylamine	NEIPA	16339-04-01
11	Nitrosomethylphenylamine	NMPA	614-00-6
12	Nitrosomethylaminobutyric Acid	NMBA	61445-55-4
13	N-Nitrosodiphenylamine	-	86-30-6
14	Nitrosohydroxyproline	NHPRO	30310-80-6
15	N-Isopropyl-N-Methylamine	-	4747-21-1
16	Nitrososarcosine	NSAR	13256-22-9
17	N-Terbutyl-N Ethyl-Nitrosamine	EBNA	3398-69-4