

LABORATORY LOCATION/ CENTRAL OFFICE: 	MY CO2 (JB) SDN. BHD. 11&15, JALAN MOLEK 1/8 TAMAN MOLEK 81100, JOHOR BAHRU, JOHOR MALAYSIA
ACCREDITED SINCE:	17 DECEMBER 2015
FIELD(S) OF TESTING:	CHEMICAL, 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).

CENTRAL LOCATION:	MY CO2 (JB) SDN. BHD. 11&15, JALAN MOLEK 1/8 TAMAN MOLEK 81100, JOHOR BAHRU, JOHOR MALAYSIA
FIELD(S) OF TESTING:	CHEMICAL, MICROBIOLOGY

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water Ground Water Industrial/ Cooling Purposes Mineral Water Potable & Domestic Water Drinking Water Reverse Osmosis Water Steam Raising/ Boiler Water Surface Water Swimming Pool Water & SPA River water Cooling tower water Ice water Steam water	pH	APHA 4500 – H ⁺ B
	Biological Oxygen Demand (BOD)	APHA 5210 - B
	Dissolved Oxygen	APHA 4500- O G
	Chemical Oxygen Demand (COD)	APHA 5220 D
	Suspended Solid	APHA 2540 D
	Oil and Grease	APHA 5520 B
	Temperature	APHA 2550 B
	Chromium Hexavalent	APHA 3500 – Cr B

SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water Ground Water Industrial/ Cooling Purposes Mineral Water Potable & Domestic Water Drinking Water Reverse Osmosis Water Steam Raising/ Boiler Water Surface Water Swimming Pool Water & SPA River water Cooling tower water Ice water Steam water	Cyanide	APHA 4500 CN- C & E
	Formaldehyde	USEPA 8315A
	Fluoride	APHA 4500 F – D
	Phenol	In house method MY/STP/069 based on APHA 5530 B & APHA 5530 D
	Free Chlorine	APHA 4500 Cl-G
Water Drinking water Potable Water Raw water Surface water	Mercury	In house method MY/STP/402 based on APHA 3030F, 3114C & 3120B

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SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water Raw water	COD (Titration)	APHA 5220 C
Water Ground water Mineral water Potable water Drinking water Deionized water River water Raw and Treated water	Bromoform Chloroform Bromodichloromethane Dibromochloromethane Styrene	In house method MY/STP/320 based on APHA 6200 B (2012) & Journal of Chromatography A, 1181 (2008) 116-124
Water Ground Water Industrial/Cooling Purposes Mineral Water Potable & Domestic Water Drinking Water Reverse Osmosis Water Steam Raising/ Boiler Water Surface Water Swimming Pool Water & SPA River water Cooling tower water Ice water Steam water	Sulfide	APHA 4500 – S ²⁻ D
	Tin, Strontium, Lithium	In house method MY/STP/225 based on APHA 3120B & APHA 3030 F
	Antimony	APHA 3030 F & APHA 3120 B
	Aluminium	
	Arsenic	
	Barium	
	Beryllium	
	Boron	
	Cadmium	
	Calcium	
	Total Chromium	
	Cobalt	
	Copper	
	Iron	
	Lead	
	Magnesium	
	Manganese	
	Molybdenum	
	Nickel	

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SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water (Continued) Ground Water Industrial/Cooling Purposes Mineral Water Potable & Domestic Water Drinking Water Reverse Osmosis Water Steam Raising/ Boiler Water Surface Water Swimming Pool Water & SPA River water Cooling tower water Ice water Steam water	Potassium	APHA 3030 F & APHA 3120 B
	Selenium	
	Silver	
	Silicone	
	Sodium	
	Thallium	
	Vanadium	
	Zinc	
Water Ground Water Industrial/ Cooling Purposes Mineral Water Potable & Domestic Water Drinking Water Reverse Osmosis Water Steam Raising / Boiler Water Surface Water Swimming Pool Water & SPA River water Cooling tower water Ice water Steam water	Ammonia/ Nitrogen	APHA 4500 NH ₃ B & C
	Colour(ADMI)	APHA 2120 F
	Anionic surfactant-Detergent MBAS	APHA 5540C
	Chloride	APHA 4500 – Cl ⁻ D
	Turbidity	APHA 2130 B
	Hardness	APHA 2340 C
	Nitrite	APHA 4500-NO ₂ B
	Sulphate	APHA 4500 – SO ₄ ²⁻ D
	Total Dissolved Solid	APHA 2540 C
	Mineral oil	APHA 5520 F

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SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water Mineral water Potable water Drinking water Reverse Osmosis Water Ice water Steam water	Organochlorine Pesticide – • Aldrin • Gamma-BHC • Heptachlor • Heptachlor epoxide • Dieldrin • 4,4'-DDT • 4,4'-DDD • 4,4' DDE • Endrin • Endosulfan • Hexachlorobenzene (Alpha, Beta and Delta) • Methoxychlor	APHA 6630 D
	Nitrate	APHA 4500-NO3 B
Water Potable water Drinking water Raw water Surface water Waste water	Conductivity	APHA 2510B
	Colour	APHA 2120B
Water Drinking Water Ground Water River Water	Total Solids	APHA 2540 B
	Phosphate/ Phosphorus	APHA 4500-P B & C
Water Potable & Domestic Water Ground Water Mineral Water Reverse Osmosis Water Industrial Water Swimming Pool Water Drinking Water River water Ice water Well Water	2, 4-D Chlorpyrifos	In house method based on APHA 6410B & Journal of Chromatographic Science, Vol. 48 (2010) 183-187

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Environmental Monitoring Industrial Effluent Sewage Water Waste water	pH	APHA 4500 – H ⁺ B (2005)
	Biological Oxygen Demand (BOD)	APHA 5210 - B (2005)
	Chemical Oxygen Demand (COD)	APHA 5220 D (2005)
	Suspended Solid	APHA 2540 D (2005)
	Oil and Grease	APHA 5520 B (2005)
	Temperature	APHA 2550 B (2005)
	Chromium Hexavalent	APHA 3500 – Cr B (2005)
	Cyanide	APHA 4500 CN ⁻ C & E (2005)
	Formaldehyde	USEPA 8315A
	Fluoride	APHA 4500 F – D (2005)
	Phenol	In house method MY/STP/069 based on APHA 5530 B & APHA 5530 D (2005)
	Free Chlorine	APHA 4500 Cl-G (2005)
	Mercury	In house method MY/STP/402 based on APHA 3030F, 3114C & 3120B (2005)
	COD (Titration)	APHA 5220 C (2005)
	Sulfide	APHA 4500 – S ²⁻ D (2005)
	Tin	In house method MY/STP/225 based on APHA 3120B (2005) & APHA 3030 F (2005)
	Antimony	APHA 3030 F (2005) & APHA 3120 B (2005)
	Aluminium	
	Arsenic	
	Barium	
	Boron	
	Cadmium	
	Copper	
	Iron	
	Lead	
	Manganese	

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SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Environmental Monitoring (Continued) Industrial Effluent Sewage Water Waste water	Nickel	APHA 3030 F (2005) & APHA 3120 B (2005)
	Selenium	
	Silver	
	Zinc	
	Ammonia/Nitrogen	APHA 4500 NH ₃ B & C (2005)
	Colour (ADMI)	APHA 2120 F (2005)
	Dissolved Oxygen	APHA 4500- O G
	Strontium, Lithium	In house method MY/STP/225 based on APHA 3120 B & APHA 3030 F
	Beryllium	APHA 3030 F & APHA 3120 B
	Calcium	
	Total Chromium	
	Cobalt	
	Magnesium	
	Molybdenum	
	Potassium	
	Silicone	
	Sodium	
	Thallium	
	Vanadium	
	Anionic Surfactant – Detergent MBAS	APHA 5540 C
	Chloride	APHA 4500 –Cl ⁻ D
	Turbidity	APHA 2130 B
	Hardness	APHA 2340 C
	Nitrite	APHA 4500- NO ₂ B
	Sulphate	APHA 4500 – SO ₄ ²⁻ D
	Total Dissolved Solid	APHA 2540 C
	Mineral Oil	APHA 5520 F

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SCOPE OF TESTING: CHEMICAL

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Environmental Monitoring (Continued) Industrial Effluent Sewage Water Waste water	Mixed Liquor Suspended Solids (MLSS)	APHA 2540 D
	Mixed Liquor Volatile Suspended Solids (MLVSS)	APHA 2540 D & E
	Total Solids	APHA 2540 B
	Phosphate/ Phosphorus	APHA 4500-P B & C

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Animal Feedstuff	Protein/ Nitrogen	AOAC 988.05, 20 th edition
	Moisture	AOAC 930.15, 20 th edition
	Ash	AOAC 942.05, 20 th edition
	Crude Fibre	AOAC 978.10, 20 th edition
	Crude Fat	AOAC 920.39, 20 th edition
Coffee powder & Tea beverage	Caffeine & Coffee Content	MS 1360: 1994
All types of food and food related samples • Foods • Alcoholic Beverages • Dairy Products • Edible Oils, Fats & their Product • Egg & Egg Products • Essential Nutrients including Vitamins • Fish & Fish Products • Flour & Confectionery • Food Additives & Supplement • Honey & Honey Products • Infant Foods • Meat, Poultry & Derived Products • Non-alcoholic Beverages • Nut, Fruit & Vegetables and Derived Products • Pet Foods • Sauces, Herbs, Spices and Condiments • Sugars & Sugar Products	Protein/ Nitrogen	In house method MY/STP/270 based on AOAC 988.05, 20 th edition
	Moisture	In house method MY/STP/271 based on AOAC 931.04, 20 th edition
	Total Fat	In house method MY/STP/265 based on AOAC 963.15, 20 th edition
	Fatty Acids Composition (Monounsaturated Fat, Polyunsaturated Fat, Saturated Fat, Trans Fat)	In house method MY/STP/090 based on AOAC 969.33, 20 th Edition & AOAC 963.22, 20 th edition
	Total Sugar	In house method MY/STP/089 based on AOAC 968.28, 20 th edition
	Energy / Calories	Guide to Nutrition Labelling and Claims page 10 & 14
	Carbohydrate	Guide to Nutrition Labelling and Claims page 10 & 14
	Vitamin C	In house method MY/STP/145 based on GB 5413.18-2010
	Vitamin A	In house method MY/STP/128 based on GB 5413.9-2010
	Vitamin E	In house method MY/STP/415 based on GB 5413.9-2010
	Vitamin D	In house method MY/STP/380 based on GB 5413.9 - 2010
	Cholesterol	In house method MY/STP/131 based on J AOAC Vol. 78, No. 6, 1995

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
All types of food and food related samples • Foods • Alcoholic Beverages • Dairy Products • Edible Oils, Fats & their Product • Egg & Egg Products • Essential Nutrients including Vitamins • Fish & Fish Products • Flour & Confectionery • Food Additives & Supplement • Honey & Honey Products • Infant Foods • Meat, Poultry & Derived Products • Non-alcoholic Beverages • Nut, Fruit & Vegetables and Derived Products • Pet Foods • Sauces, Herbs, Spices and Condiments • Sugars & Sugar Products	Total Dietary Fibre	In house method MY/STP/030 based on SCC Technical Bulletin No. TDFAB
	Cadmium	In house method MY/STP/264 based on AOAC 999.11, 20 th edition
	Lead	In house method MY/STP/264 based on AOAC 999.11, 20 th edition
	Mercury	In house method MY/STP/023 based on AOAC 971.21, 20 th edition
	Tin	In house method MY/STP/029 based on AOAC 985.16, 20 th edition
	Arsenic	In house method MY/STP/025 based on AOAC 971.21, 20 th edition
	Sodium	In house method MY/STP/009 based on AOAC 968.08, 20 th edition
	Calcium	In house method MY/STP/009 based on AOAC 968.08, 20 th edition
	Iron	In house method MY/STP/009 based on AOAC 968.08, 20 th edition
	Benzoic Acid	In house method MY/STP/110 based on JAOAC Vol. 70, No. 5, 1987
	Sorbic Acid	In house method MY/STP/110 based on JAOAC Vol. 70, No. 5, 1987
	Sulphur Dioxide	In house method MY/STP/040 based on Velp Scientifica manual UDK 126 D
Food Products	Sudan I, II, III, IV & Para Red	Government Chemists Publication List: LGC/GC/2007/005

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
All types of food and food related samples - Foods - Liquid and Semi-liquid Foods, beverages, sauces, pastes, honey, edible oils, fats and their products - Dairy products - Nutritional foods, Infant foods, food supplements - Flour and confectionery - Meat, poultry and derived products - Nut, fruit and vegetables and derived products - Herbs, spices and condiments	Ash	In house method MY/STP/272 based on AOAC 942.05, 20 th Ed
	Total Carbohydrate (by Calculation)	US FDA 21 CFR101.9 Part 101
	Energy/Calories (by Calculation)	US FDA 21 CFR101.9 Part 101
	Antimony	In house method MY/STP/406 based on AOAC 999.11, 20 th Ed
Solid, Liquid and Semi-liquid Foods - beverages, sauces and pastes, nutritional foods	Salt / Sodium Chloride	In house method MY/STP/403 based on Metrohm Manual Method 21 D 3
Milk Powder and Milk Product	Mojonnier Fat	AOAC 932.06, 20 th Edition
Milk	Mojonnier Fat	AOAC 989.05, 20 th Edition
Nutritional and dietary supplement, pharmaceutical, traditional medicine	Lead, Cadmium	In house method MY/STP/411 based on FDA EAM Section 2.3.1 & USP <233>
	Mercury, Arsenic	In house method MY/STP/412 based on FDA EAM Section 2.3.1 & USP <233>

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
- Palm Oil & Palm Oil Products - Edible Oils and related products	Moisture and Volatile Matter	MPOB p2.1 Part 1: 2004
	Impurities	MPOB p2.2: 2004
	Peroxide Value	MPOB p2.3: 2004
	Acidity / Free Fatty Acid	MPOB p2.5: 2004
	Saponification Value	MPOB p3.1: 2004
	Unsaponifiable Matter	MPOB p2.7: 2004
	Iodine Value	MPOB p3.2: 2004
	Deterioration of Bleachability Index (DOBI) of Crude Palm Oil (CPO)	MPOB p2.9: 2004
	Cold Test	MPOB p4.7: 2004
	Ash	MPOB p3.6: 2004
	Apparent Density	MPOB p4.5: 2004
	Soap Content	MPOB p2.13: 2004
	Total Fatty Matter (By Calculation)	MPOB p3.7: 2004
	Mineral Oil (Qualitative)	AOAC 945.102, 20 th Edition
	Cloud point	AOCS Cc6-25
	Refractive index	AOCS Cc7-25
	Phosphorus	AOCS Ca 12-55
	Slip melting point	AOCS Cc 3-25:2009
	Colour	MPOB p4.1:2004
	MCPD Esters Glycidol Ester	AOCS Cd 29a-13

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Pet Food, Feed & Food Products	Potassium	In House Method MY/STP/372 Based On AOAC 985.01, 20 th Ed
Feed & Food Products	Added Sugar (as sucrose)	In House Method MY/STP/377 Based On AOAC 968.28, 20 th Ed
Cosmetics	Lead, Cadmium	In House Method MY/STP/401 Based On AOAC 999.11, 20 th Ed
	Mercury, Arsenic	In House Method MY/STP/400 Based On AOAC 971.21, 20 th Ed
Wire/ Wire Rod	Zinc, Aluminium	ASTM E1277-08
Foods: • Dairy Products • Edible oils, fats and their products • Flour and confectionery • Honey and honey products • Meat, poultry and derived products • Non-alcoholic beverages • Nuts and derived products • Sauces, herbs, spices and condiments • Liquid and semi-liquid foods	Available Carbohydrate (By Differences)	In House Method MY/STP/420 based on Protocol for Sampling and Method of Analysis for Malaysian Food Composition Database, Part III, Clause 3.3 1: Proximate Analysis.

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SCOPE OF TESTING: CHEMICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Foods: - Edible oils, fats and their products - Flour and confectionery - Nut, fruit and vegetables and derived products - Sauces, herbs, spices and condiments - Sugar and sugar products - Dairy products - Coffee and derived products	Total Aflatoxin (B1, B2, G1, G2) Aflatoxin B1 Aflatoxin B2 Aflatoxin G1 Aflatoxin G2	In house method based on AOAC 990.33, 20 th Ed (by HPLC)
	Sodium benzoate Potassium Sorbate	In house method MY/STP/110 based on JAOAC Vol. 70, No.5, 1987 (by Calculation)
Fertilizers	Moisture	MS 417:Part 2:1994 Amd 1: 2001 (Oven Method)
	Total Nitrogen	MS 417:Part 3:2020 (Modified Comprehensive Nitrogen Method)
	Ammoniacal Nitrogen	MS 417:Part 3:2020 (Distillation Method)
	Total Phosphorus (as P205)	MS 417:Part 4:2020 (Spectrophotometric molybdovanadophosphate method)
	Water Soluble Phosphorus P205	MS 417:Part 4:2020 (Shaking method)
	Citric Soluble Phosphorus P205	MS 417:Part 4:2020
	Potassium (as K20)	MS 417:Part 5:2020 (Inductively coupled plasma spectrometry (ICP) method)
	Magnesium (as MgO)	MS 417:Part 6:2020: (Inductively coupled plasma spectrometry (ICP) method)
	Boron (as B ₂ O ₃)	MS 417:Part 7:2020 (Inductively coupled plasma spectrometry (ICP) method)

SCOPE OF TESTING: MICROBIOLOGY

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
All types of food and food related samples • Foods • Alcoholic Beverages • Dairy Products • Edible Oils, Fats & their Product • Egg & Egg Products • Essential Nutrients including Vitamins • Fish & Fish Products • Flour & Confectionery • Food Additives & Supplement • Honey & Honey Products • Infant Foods • Meat, Poultry & Derived Products • Non-alcoholic Beverages • Nut, Fruit & Vegetables and Derived Products • Pet Foods • Sauces, Herbs, Spices and Condiments • Sugars & Sugar Products	Total Plate Count	FDA – BAM Chapter 3
	Total Yeast & Mold Count	FDA – BAM Chapter 18
	Coliform	FDA – BAM Chapter 4 (Solid Medium Method)
	Coliform	FDA – BAM Chapter 4 (MPN Method)
	<i>E.coli</i>	FDA – BAM Chapter 4 (Solid Medium Method)
	<i>E.coli</i>	FDA – BAM Chapter 4 (MPN Method)
	<i>Salmonella</i>	FDA – BAM Chapter 5
	Enterobacteriaceae	AOAC 2003.01, 20 th Edition (Petrifilm Method)
	<i>Staphylococcus aureus</i>	FDA – BAM Chapter 12
	<i>Bacillus cereus</i>	FDA – BAM Chapter 14
	<i>Clostridium perfringens</i>	FDA – BAM Chapter 16
	<i>Vibrio cholerae</i>	FDA – BAM Chapter 9
	<i>Vibrio parahaemolyticus</i>	FDA – BAM Chapter 9
	<i>Listeria monocytogenes</i>	FDA – BAM Chapter 10

SCOPE OF TESTING: MICROBIOLOGY

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
All types of food and food related samples • Foods • Alcoholic Beverages • Dairy Products • Edible Oils, Fats & their Product • Egg & Egg Products • Essential Nutrients including Vitamins • Fish & Fish Products • Flour & Confectionery • Food Additives & Supplement • Honey & Honey Products • Infant Foods • Meat, Poultry & Derived Products • Non-alcoholic Beverages • Nut, Fruit & Vegetables and Derived Products • Pet Foods • Sauces, Herbs, Spices and Condiments • Sugars & Sugar Products	<i>Clostridium botulinum</i>	FDA – BAM Chapter 17
	Yeast and Mold	AOAC 2014.05 20 th Ed
	Aerobic Plate Count at 30°C	ISO 4833-1
	<i>Coliform</i>	ISO 4832
	β - Glucuronidase-Positive <i>Escherichia coli</i>	ISO 16649-2
	Coagulase- Positive Staphylococci (<i>Staphylococcus aureus</i> and other species)	ISO 6888-1
	Enterobacteriaceae	ISO 21528-2
	<i>Salmonella</i> spp.	ISO 6579-1
	Yeast and Mold (water activity >0.95)	ISO 21527-1
	Yeast and Mold (water activity ≤0.95)	ISO 21527-2

SCOPE OF TESTING: MICROBIOLOGY

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
All types of food and food related samples • Foods • Alcoholic beverages • Dairy products • Edible oils, fats and their products • essential nutrients including vitamins • fish & fish products • flour and confectionery • food additives and supplements • honey and honey products • infant foods • meat, poultry and derived products • non-alcoholic beverages • nut, fruit and vegetables and derived products • pet foods • sauce, herbs, spices and condiments • sugar and sugar products	Total Plate Count	In house method MY/STP/407 based on GB 4789.2
	Total Yeast and Mould	In house method MY/STP/396 based on GB 4789.15
	Coliform	In house method MY/STP/397 based on GB 4789.3(Solid Medium Method and MPN Method)
	<i>Escherichia coli</i>	In house method MY/STP/398 based on GB 4789.38 (MPN Method)
	<i>Staphylococcus aureus</i>	In house method MY/STP/399 based on GB 4789.10
	<i>Salmonella</i>	In house method MY/STP/404 based on GB 4789.4
	Fecal Coliform	FDA - BAM Chapter 4 (MPN Method)

SCOPE OF TESTING: MICROBIOLOGY

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Water, Waste Water, Portable Water & Drinking Water	Heterotrophic Plate Count	APHA 9215 B (Pour Plate method) ;
	Heterotrophic Plate Count	APHA 9215 D (Membrane Filtration);
	Total Coliform	APHA 9222 B (Membrane Filtration) ;
	Fecal Coliform	APHA 9222 D (Membrane Filtration) ;
	<i>E.coli</i>	APHA 9221 F (Multiple Tube method);
	Total Coliform	APHA 9221 B (Multiple Tube method);
	<i>Legionella spp</i> including <i>Legionella pneumophilla</i>	AS/ NZS 3896
Microbiological Monitoring (Environmental Monitoring, Air & Work Surfaces)	Air monitoring for total bacteria, total fungus count by cascade impactor	In house method MY/STP/185 based on NIOSH method 0800
	Swab contact method Sponge contact method Air sedimentation method Total plate count Yeast & mold count Coliform Escherichia coli Staphylococcus aureus Enterobacteriaceae Enterococci Bacillus cereus Clostridium perfringens Salmonella spp. Listeria spp.	In-house method MY/STP/175 based on Compendium of Methods for the Microbiological Examination of Foods, Chapter 3
Enviromental (Swab and sponge)	Sponge contact method Salmonella spp.	In-house Method MY/STP/175 based on Compendium of Methods for the Microbiological Examination of Foods, Chapter 3 and FDA-BAM Chapter 5
	Listeria monocytogenes Listeria spp.	In-house Method MY/STP/175 based on Compendium of Methods for the Microbiological Examination of Foods, Chapter 3 and FDA-BAM Chapter 10

SCOPE OF TESTING: MICROBIOLOGY

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Nutritional and dietary supplement, pharmaceutical, traditional herbal medicine, toiletries and cosmetic.	<i>E.coli</i>	BP 2020 (Appendix XVI B & F)
	<i>Salmonella</i>	BP 2020 (Appendix XVI B & F)
	<i>Staphylococcus aureus</i>	BP 2020 (Appendix XVI B)
	Bile-tolerant gram-negative bacteria / Enterobacteriaceae	BP 2020 (Appendix XVI B & F)
	<i>Pseudomonas aeruginosa</i>	BP 2020 (Appendix XVI B)
	Total Aerobic Microbial Count – Plate Count Method	BP 2020 (Appendix XVI B)
	Total Yeast & Mould Count – Plate Count Method	BP 2020 (Appendix XVI B)
Canned Food	Thermophilic/Mesophilic Aerobic Bacteria	FDA – BAM Chapter 21 A
	Thermophilic/Mesophilic Anaerobic Bacteria	FDA – BAM Chapter 21 A
	Leakage Organisms	FDA – BAM Chapter 21 A

Notes:

1. APHA: American Public Health Association, Standard Method for Examination of Water and Wastewater, 21st Edition, 2005
2. AOAC: Official Methods of Analysis of AOAC International
3. ASTM : American Society for Testing & Materials
4. BP: British Pharmacopeia
5. FDA-BAM: US Food and Drug Administration / Bacteriological Analytical Manual
6. FDA EAM: US Food and Drug Administration - Elemental Analysis Manual
7. GB: National Food Safety of People's Republic of China
8. JAOAC: Journal of AOAC International
9. MPOB: Malaysia Palm Oil Board
10. MS: Malaysia Standard
11. NIOSH: National Institute of Occupational Safety & Health
12. USEPA: United States Environmental Protection Agency
13. USP: United States Pharmacopeia

SCOPE OF TESTING: MICROBIOLOGICAL

Materials/Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Method/ Equipment/Techniques
Water Ground water River water Portable water Treated water Raw water Swimming pool water Deionized water Mineral water Drinking water Dialysis water Reverse osmosis water Cooling tower water	<i>Clostridium perfringens</i>	BS ISO 14189 (Membrane Filtration)
	<i>Fecal Enterococci/streptococci</i>	APHA 9230 C (Membrane Filtration)
	<i>Pseudomonas aeruginosa</i>	APHA 9213 E Membrane Filtration)
	<i>Sulfite-reducing anaerobes (Clostridia)</i>	BS EN 26461-2 (Membrane Filtration)
	<i>Fecal Coliform</i>	APHA 9221 E (Multiple Tube Method)

Notes:

APHA: American Public Health Association

GB: Chinese National Standards

BS: British Standard

MS: Malaysia Standard