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NO: SAMM 587

LABORATORY LOCATION/ CENTRAL OFFICE:	Melaka Biotechnology Corporation Lot 7, MITC City, Hang Tuah Jaya, 75450 Ayer Keroh, Melaka , 75450, MELAKA MALAYSIA
ACCREDITED SINCE :	06 APRIL 2025
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:	Melaka Biotechnology Corporation Lot 7, MITC City, Hang Tuah Jaya, 75450 Ayer Keroh, Melaka , 75450, Melaka
FIELD(S) OF TESTING :	CHEMICAL, MICROBIOLOGICAL

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
(external And Oral)	None	None
(herbal Medicinal Products	None	None
	None	None
Beverages	None	None
	Determination of ethanol in	JKM 02/04
	Total Sugars	JKM K0616 -" Determination of Total
	pH	AOAC 945.10
	None	None
	None	None
	None	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	Protein/Total Nitrogen	In-house Method SOP-0217-1031 by
	Total Dietary Fiber	AOAC 985.29
	Sorbic Acid	based on Journal of
	None	to 1-17 (HPLC)
	Ethanol	In-house method LWI-TEC-
	None	None
	Sorbic Acid in Food by Ultra High	based on AOAC Official Method
	Performance Liquid Chromatography	983.16, Benzoic Acid and Sorbic
	Performance Liquid Chromatography	Acid in Food, AOAC International,
	Performance Liquid Chromatography	2005
	Determination of caffeine in Soft	In-house method FQL-TM-FA202
	Drink by Ultra High Performance	based on Ashoor et. Al. J. Assoc.
	Liquid Chromatography	Off. Anal. Chem. Vol.66, No.3,
	Liquid Chromatography	1983
Beverages Nutritional Supplements Herbs And Spices Fish, Crustaceans And Molluscs	None	In-house method MBC-TM-105 based on Compact Dry -œNissui-• EC
Bird Nest Products E	Moisture	In-house method MBC-TM-200 based on MS 1435:1998
Cereal Products	None	None
	None	None
	None	None
	None	None
	Salmonella spp detection	ISO 6579-1: 2017
Concentrates Sugar Products, Honey Confectionery	Coliform Count	Bacteriological Analytical Manual (BAM) Chapter 4, September 2002- Solid Method
Confectionery	None	None
	None	None
	None	None
	Cholesterol	Based on Elsevier -” Journal of
Cosmetic	Total Aerobic Microbial Count	British Pharmacopoeia (BP) 2017,
Cream	None	Volume V, Appendix XVI B,
	None	None
	Candida albican	BP 2013/2019 Appendix XVI B.4.7
Cream E	None	Volume V, Appendix XVI B,
Dairy Products	Moisture	In-house method MBC-TM-200
	Enumeration of Fecal Coliforms	In-house method MBC-TM-118
	Total Plate Count	In-house method LWM 3 based on
	None	None
	None	None
	None	None
	Ash	based on AOAC Edition

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Vitamin A palmitate	In-House Method SOP-0217-1029
	None	Method
	None	By Mojonnier (gravimetric)
	Moisture	In-house Method 0509 based on
	Majonnier Fat	AOAC 932.06, Edition
	None	None
	None	None
	Shigella species	FDA-BAM Chapter 6, 2014
	None	None
	None	None
	None	AOAC, 1993)
	None	None
	Water activity	AOAC 978.18 (2000)
	None	Fluorescence Detection
	Vitamin B5	In-house method LWI-TEC-
	None	None
	Ascorbic Acid	In-house method LWI-TEC-
	Vitamin A (Retinol)	In-house method LWI-TEC-
	None	None
	None	(Pour Plate Technique)
	None	(Detection, MPN & Spread Plate
	Enterobacteriaceae Detection	ISO 21528-1: 2004
	Aerobic Plate Count	3M-„¢ Petrifilm-„¢ Rapid Aerobic
	None	None
Dairy Products Meat And Meat Products	Aerobic Plate Count	Bacteriological Analytical Manual (BAM) Chapter 3, January 2001
Deionized Water	None	None
	None	None
	Pseudomonas aeruginosa	ISO 16266:2006 (E)
	None	None
	Antimony	None
	None	None
	None	None
Derived Products Edible Oils, Fats And Their Products Eggs And Egg Products Infant Foods	Total Carbohydrate	In-house method MBC-TM-203 based on Method of Analysis for Nutrition Labelling, 1993, Page 106 (by difference)
Distilled Water	None	None
	None	None
	Nickel	None
	Lead	None
	None	None
	None	None
Drinking Water	None	None
	Temperature	APHA 2550 B
	None	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Epichlorohydrin	In-house JKM W 0413 by Purge and
	Determination of PAHs in	In-house Method JKM W 0414,
	Organochlorine Pesticides	In-house Method JKM W 0502,
	Determination of Anions by Ion	In-house Method JKM W 0303,
	Coliform and Escherichia coli	JKM M 2032
	Turbidity	APHA - 2130B
	Total Nitrogen as N	APHA - 4500Norg B & APHA -
	Oil & Grease	APHA - 5520B or APHA - 5520D
	Antimony as Sb	Plasma Optical Emission
	Antimony as Sb	None
	Selenium as Se	None
	Fluoride as F	Chromatography with Chemical
	Dichlorobromomethane	None
	None	None
	Organophosphorus Pesticides	In-House No. G11 based on EPA
	Organochlorine Pesticides	EPA 525.3 (GCMS)
	Total Hardness as CaCO3	APHA-2340B
	Poly Aromatic Hydrocarbons	In-House No. G5 (based on World
	Polychlorobiphenyls(PCB)	In-House No. G2 based on EPA
	nC29 to nC35	None
	n-Tetracontane	None
	None	Method)
	Sulphite-reducing Anaerobes	ISO 6461/2: 1986
	Aluminium as Al	None
	None	None
	pH	APHA 4500-H + B, 21% Edition
	Trivalent Chromium	In-House Method SOP-0217-2029
	None	None
	Chloride as Cl	Suppression of Eluent Conductivity
	Conductivity	APHA 2510 B, 21% Edition
	Combined Chlorine as Cl2	APHA 4500-Cl G, 21st Edition 2005
	None	None
	Staphylococcus aureus	AOAC OMA 2003.08
	Chlorite (ClO2)	In House Method 6023, based on
	None	None
	None	None
	Mineral Oil	APHA 5520 F
	Fluoride	APHA C
	None	None
	Heterotrophic Plate Count	APHA 9215 D
	None	None
	None	None
	None	None
	None	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	None	None
	None	126, based on Thermo Fisher Application Noted 154
	Phenol	APHA 6420C, 24" Edition
	None	In-house method SGS-TM-ENVI-W-
	Organochlorine Pesticide	APHA 6630B, 24" Edition
	Conductivity	APHA 2510 B
	None	Boiling Cell Method
	None	QIAGEN Mericon? Bacteria Kit
	None	spp. by Gel Electrophoresis
	None	monocytogenes by Gel
	None	Real Time Polymerase Chain
	and Escherichia coli count	9222 H
	Coliform and Escherichia coli	Presence/absence Technique
	pH	APHA 4500-H* B
	Colour	APHA 2120B
	Turbidity	APHA 2130B
	Free Chlorine	HACH Method No . 8021
	Ammonia as N	HACH Method No . 8038
	as Fe	HACH Method No . 8008
	Manganese as Mn	HACH Method No . 8149
	Fluoride as F	HACH Method No . 8029
	Aluminium as Al	HACH Method No . 8326
	pH	APHA 4500-H* B
	Colour	APHA 2120B
	Turbidity	APHA 2130B
	Free Chlorine	HACH Method No . 8021
	Ammonia as N	HACH Method No . 8038
	as Fe	HACH Method No . 8008
	Manganese as Mn	HACH Method No . 8149
	Fluoride as F	HACH Method No . 8029
	Aluminium as Al	HACH Method No . 8326
	Total Dissolved Solids	APHA 2540. C
	Total Dissolved Solids	APHA 2540. C
Fish, Crustaceans And	None	None
	None	None
Flour And Confectionery	None	based on MS 1435:1998
	None	None
	Multiresidue Pesticides	In-house No. G32 based on AOAC
	None	980.13
	None	None
	Cholesterol	based on AOAC 994.10 Edition
	None	F019 based on FDA Method
	None	None
	Aflatoxin G2	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	None	None
	None	(MPN & Spread Plate
	None	None
Food	None	None
	None	None
	None	None
	Determination of Cholesterol in	JKM F 1208: In-house based on
	Total Acidity in Food by Titration	JKM F 0935 In-house Method based
	Determination of Melamine in	JKM F 1302 In-house Method based
	Determination of Total Arsenic in	JKM F 0509 In-house Method based
	Net Weight	JKM F 0944 In-house Method based
	Determination of Vitamin C	In-house method JKM F 1211 based
	Determination of Vitamin A	In-house method JKM F 1212 based
	Determination of Water Activity	JKM M 3082
	Yeast and Mould	JKM M 3084 -" Enumeration of Yeast
	Detection and Enumeration of	JKM B 0201
	Coliform Counts (Petrifilm)	JKM M 3053 AOAC, 21* Edition, 2019 (991.14) -"
	Detection of Cronobacter	JKM M 3083
	Extraction of Food Samples	JKM B 0105 DNA Extraction and
	Sequencing of mitochondrial	JKM B 0310 Speciation of animal
	Foreign Matter and Extraneous	JKM B 0405 Determination of
	Identification of Insects/Foreign	JKM B 0404. Determination of
	Identification of Foreign Matter in	JKM B 0402. Identification of Rodent
	Determination of the Origin of	JKM B 0403. Determination of Origin
	None	None
	None	None
	None	None
	None	None
	None	None
	None	In-house method, WI-TEC-M001,
	None	None
	None	In-house method, WI-TEC-M014,
	None	None
	None	None
	Pesticides	None
	None	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	None
	None	AOAC 990.12,19" Edition 2012
	None	In-house method, WI-TEC-M015M,
	Fat	In-house Method SOP-0217-1008
	Total Sugar (Titration)	AOAC 968.28, Edition, 2005
	Vitamin C	In-house Method SOP-0217-1015 by
	Energy as Calories	In-house Method SOP-0217-1032
	Shigella	FDA/BAM Chapter 6, Feb 2013
	None	None
	None	None
	Tin (Sn)	In-house Method C/FOD/029
	None	None
	Ascorbic Acid (Vitamin C)	In-house Method C/FOD/003
	None	None
	None	None
	None	None
	Staphylococcus aureus -” Most Probable Number	AOAC 987.09
	Enumeration of Mesophilic Lactic Acid	ISO 15214: 1998
	None	None
	Detection & Enumeration of Coliform	AS 5013.3 - 2022
	Enumeration of Coliform	FDA-BAM Chapter 4 (I.G)
	Detection & Enumeration of Escherichia coli	AS 5013.15 -” 2006
	Enumeration of Escherichia coli	FDA-BAM Chapter 4 (I.G)
	Detection of Salmonella spp.	AS 5013.10 - 2009
	Enumeration of Yeast and Molds	FDA -” BAM Chapter: 18
	Detection of Listeria monocytogenes	In-house Method M/FOD/010 based on FDA -” BAM Chapter 10:2011
	Enumeration of Bacillus cereus	In-house Method M/FOD/011 based on FDA -” BAM Chapter 14:2012
	Enumeration of Fecal Coliform	CMME of Foods - Chapter 8.8
	Clostridium perfringens Count	ISO 7937:2004
	Tin	None
	Sugar Profile:	In-house method SGS-TM-FOOD-104
	Folic acid	In-house method SGS-TM-FOOD-106

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Metals Contaminants Arsenic, As Lead, Pb Copper, Cu	In-House Method, SGS-WI-LAB-028 based on AOAC 986.15, 975.03, 922.02, 2011.14 & 2015.01, APHA 3120B and APHA 3125B
	Total Sugars	In-house method, SGS-TM-FOOD-
	Water activity	In-house method, SGS-TM-FOOD-
	None	None
	Vitamin A	In-house method SGS-TM-FOOD-050 based on Bull. Dept. Med Sci, Vol 37, No. 1 Jan -" March 1995,
	Total Aerobic Count	AOAC 989.10: 2005 & AOAC
	Listeria monocytogenes	In-house method, SGS-TM-MICR-
	None	None
	Porcine DNA	In-house method, SGS-TM-BIOT-
	Total Plate Count	AS 1766.2.1-1991
	Listeria monocytogenes	ISO 11290-1:2017 (E) / Detection
	Salmonella spp.	ISO 6579:2017 (E) / Detection
	Bacillus cereus	ISO 7932:2004 (E) / Enumeration
	Bacillus cereus	ISO 21871:2006 (E) / Detection and
	Vibrio parahaemolyticus	ISO/TS 21872-1:2017(E) / Detection
	Escherichia coli	ISO 7251:2005 (E) / Detection and
	E. Coli 0157	ISO 16654:2001(E) / Detection
	Yeast and Mould Count	In-house method Ref. No. MOH:
	Aerobic Plate Count	In-house method based on AOAC
	Coliform	ISO 4831:2006 (E) / Detection and
	Mesophilic Lactic Acid Bacteria	ISO 15214:1998 (E) / Enumeration
	DNA Extraction	In-house Method, Ref. No. MOH
	Benzoic acid	In-house Method, Ref. No. MOH:
	Saccharin	In-house Method, Ref. No. MOH:
	Sulphur Dioxide	In-House Method, Ref. No. MOH:
	Boric acid	In- House Method, Ref. No. MOH:
	Formaldehyde	In-house Method, Ref. No. MOH:
	Egg Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Peanut Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Milk Allergen- Qualitative	In-house Method, Ref. No. MOH:
	Gliadin Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Soy Allergen- Qualitative	In-House Method Ref. No. MOH
	Crude Fibre	AOCS Ba 6-84
	None	Microbiology of food and animal
	None	feeding stuffs- Horizontal method for
	Listeria monocytogenes	the detection and enumeration of
	Listeria monocytogenes	Listeria monocytogenes- Part 1:

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Listeria monocytogenes	Detection Method
	Listeria monocytogenes	Method No: MOH
	Listeria monocytogenes	AOAC Official Method 991.14 3M-„¢
	Escherichia coli / Coliform	Petrifilm-„¢ E.coli / coliform count Plates
	Escherichia coli / Coliform	Method No: MOH K03-203
	Escherichia coli / Coliform	AOAC Official Method 990.12 3M-„¢
	Aerobic Count Plates	Petrifilm-„¢ Aerobic Count Plates
	Aerobic Count Plates	Method No: MOH
	Aerobic Count Plates	AOAC Official Method 2003.07
	Staphylococcus aureus	2003.08, 2003.11 3M-„¢ Staph Express Count Plate
	Staphylococcus aureus	Method No: MOH K03-205
	Staphylococcus aureus	AS/NZS 1766.2.9:1997 Examination
	Staphylococcus aureus	for specific organisms- Vibrio
	Vibrio parahaemolyticus	parahaemolyticus of Australian
	Vibrio parahaemolyticus	Standard
	Vibrio parahaemolyticus	Method No: MOH K03-310
	Vibrio parahaemolyticus	ISO 7932, Third Edition 2004-06-16
	Vibrio parahaemolyticus	Microbiology of food and animal
	Vibrio parahaemolyticus	feeding stuffs -” Horizontal method
	Bacillus cereus	for the enumeration of presumptive
	Bacillus cereus	Bacillus cereus -” Colony- count
	Bacillus cereus	technique at 30°C
	Bacillus cereus	Method No: MOH (1)
	Bacillus cereus	ISO/TS 22964:2006 (E)
	Enterobacter sakazakii	IDF/RM 210:2006 (E) -” Detection of Enterobacter sakazakii
	Enterobacter sakazakii	Method No: MOH K03-115
	Enterobacter sakazakii	ISO 16654:2001 (E) -” Horizontal
	E. coli 0157	method for the detection of Escherichia coli 0157
	E. coli 0157	Method No: MOH
	Coagulase positive	ISO 6888-1:1999/Amd.1:2003 (E)
	staphylococci	Method No: MOH KO3-105 (1)
	Vibrio Species other than cholerae	other than Vibrio parahaemolyticus
	Vibrio Species other than cholerae	and Vibrio cholera
	Vibrio Species other than cholerae	Method No: MOH KO03-111 (2)
	Vibrio Species other than cholerae	ISO 10272 -” 1: 2006 (E) Horizontal
	Vibrio Species other than cholerae	Method for Detection and
	Camphylobacter spp	Enumeration of Camphylobacter spp. -” Part 1: Detection Method

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Camphylobacter spp	Method No: MOH (1)
	Camphylobacter spp	ISO 11290-2: 1998 / Amd. 1:2004 (E)
	Camphylobacter spp	Horizontal Method for Detection and
	Camphylobacter spp	Enumeration of Listeria
	Listeria monocytogenes	Monocytogenes Part 2 = Enumeration Method, Amendment 1 :
	Listeria monocytogenes	Modification of enumeration Medium
	Listeria monocytogenes	Method No: MOH (1)
	Boric Acid	E03-003 The Determination of
	Water soluble synthetic food	Water Soluble Synthetic Food
	colour (see Appendix |)	Colour in Food by Paper
	colour (see Appendix |)	Chromatography and UV/ V15
	colour (see Appendix |)	spectrophotometer
	colour (see Appendix |)	In -" House Method, Ref. No. MOH
	Total Plate Count (TPC)	FDA Food and Drug =
	Determination of Boric acid in Food	FQL-TM-FA205 In-House Method
	by UV-Vis Spectrophotometer	based International Food on
	by UV-Vis Spectrophotometer	Research Journal 17: 1107-1112
	by UV-Vis Spectrophotometer	(2010)
	Total Plate Count in Food by	AOAC Official Method 990.12
	using 3M Petrifilm Aerobic Count	None
	Plate	None
	Enumeration of Escherichia Coli	AOAC Official Method 991.14
	in Food by using 3M Petrifilm	None
	Escherichia Coli/Coliform Count	None
	Plates	None
	Enumeration of Coliform in Food	AOAC Official Method 991.14
	by using 3M Petrifilm Escherichia	None
	Coli/Coliform Count Plates	None
	Enumeration of Staphylococcus	AOAC Official Method 2003.07
	Aureus in Food by using 3M	None
	Petrifilm Staph Express Count	None
	Plates	None
	Detection of Bacillus Cereus in	Compact Dry -œNissui-• Bacillus
	Food	Cereus
	Detection of Salmonella in Food	Bacteriological Analytical Manual,
	Detection of Salmonella in Food	Chapter 5, Salmonella
	Detection of Salmonella in Food	AOAC Official Method of Analysis
	by using 3M Petrifilm Salmonella	2014.1
	Express System	None
	Salmonella spp.	ISO 6579-1:2017

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Analysis of OrganophosphorusMethod: AOAC 2007.01 Analysis of Organophosphorus	Analysis of Organophosphorus
	Total Plate Count (TPC)	FDA Food and Drug =
	Aerobic Plate Count	AOAC Official Method 990.12 Aerobic
	Bacillus cereus	ISO 7932:2004 (E) Microbiology of Food
	Yeast and Mold	AOAC Official Method 2014.05
	Enumeration of	MOH Based on AOAC
	Enumeration of Mesophilic	MOH MMEF Part 4 Section
	Campylobacter spp	MOH (1): ISO 10272-
	Gram Negative Pathogens	In-house Method, Ref. No. MOH RO3-
	Boric Acid	In-house Method, Ref. No. MOH
	Water Soluble Colours	In-house Method, Ref. No. MOH
	Moisture	In-house Method Ref. No. MOH J03-
	Ash	MOH Determination Of Ash
	1) Antimoni	MOH The Determination of
	Water Activity	In-House Method MOH J03-049:
	Soluble Solid	In-House Method MOH J03-018:
	Mercury	In-House Method MOH H03-015:
	Acrylamide	In-House Method MOH NO3-015:
Food (continued)	None	None
For External Use)	None	None
For Oral Use)	None	None
Fruit, Jams And Other Fruit Products And	Escherichia coli Count	In-house method MBC-TM-105 based on Compact Dry -œNissui-• EC
Fruit, Jams And Other Products Fruit Juices And Concentrates	Enumeration of Listeria monocytogenes	In-house method MBC-TM-107 Revision 1 based on Rapid Culture Method- Listeria precis Method
Ground Water	None	None
	pH	APHA 4500-H+ B
	None	None
	None	None
	Temperature	APHA - 2550B
	Fluoride as F	APHA - 4500F-B&D
	Cadmium as Cd	APHA - 3030 E & F (HNOs or HNOs-
	Barium as Ba	None
	Sodium as Na	None
	Nitrite as NOz	None
	Bromoform	None
	Dimethoate	None
	Gamma-lindane	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Acenaphthylene	None
	n-Dotriacontane	None
	(Refer Appendix II)	None
	Total Coliform	APHA - 9221B; 2017 (MPN Method)
	None	and APHA 3500 Cr B, Edition
	Acidity	APHA 2310 B, 2017
	None	None
	None	None
	None	None
	Bromate	S-170 & APHA 4110 B
	None	None
	Color (color units)	APHA 2120 C 2017
	Oil and Grease (Mineral)	APHA 5520 F, 2017
	Metals by Inductively Coupled Plasma	APHA 3120 B
	None	None
	Faecal Coliform	APHA 9222 D
	Lead	None
	None	None
	Endosulfan Hexachlorobenzene	None
	Cobalt	APHA 3120 B, Edition
	(Refer to Appendix 8 for the list of compounds)	Method 8260C: 2006
	BODs at 20°C	APHA 5210 B & G
	None	(Membrane Filtration Method)
	None	None
	None	None
Hard Gel Capsules	Total Combined Yeasts / Moulds	None
Herbs And Spices	None	None
	None	None
Honey And Sugar	Crude Ash	In-house method MBC-TM-201 based on MS ISO 5984:1996
Honey E	Moisture	MS 1531:2002
Honey Products	None	None
Ice	None	None
	Colony Count at 36° C and 22° C	JKM M 2038 i. ISO 6222: 1999(E) Water Quality
	Enumeration of Clostridium	JKM M 2035
	Fecal streptococcus/	In-house number M44 (Based on
Lotion	Total Combined Yeasts / Moulds	Pour Plate Method Page V-A500
Meat And Meat Products	None	based on Bacteriological Analytical
	Nitrofuran Metabolites	In-House Method, Ref No
	Sulphadimidine	Leo M.L Nolleti, Liquid-Liquid
	Total Plate Count	In-house method LWM 3 based on
	Total Plate Count	In-house method LWM 3 based on
	Beta Agonist	In-House No. M18 (Based on Direct

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Tetracycline	In-House Method SOP-0217-1021
	Moisture	AOAC 950.46
	Beta-agonist (B-agonist)	In-house method SGS-TM-FOOD-
	None	None
	Fat	In-house method, Ref. No. MOH:
	DNA Extraction	In-house Method, Ref. No. MOH G03-
Mineral Water	None	None
	(VOC as listed in Appendix 3)	Spectrometry
	CaCOs3	None
	Aluminium as Al	APHA - 3500AI-B
	Chromium as Cr	None
	None	None
	None	digestion
	Total Coliform (100 ml)	APHA - 9222B; 2017
	None	None
	Antimony as Sb	None
	Chromium Hexavalent	APHA 3500-Cr B
	None	None
	None	None
	Hexavalent Chromium	APHA 3500 Cr B, Edition
	Chloride	APHA 4500-CI B, Edition
	Fluoride as F	Ion Chromatography with Chemical
	None	None
	(Monochloramine and	None
	None	None
	None	None
	Alkalinity	APHA 2320 B, 2017
	Free Carbon Dioxide	APHA 4500-COz C, 2017
	Sodium (Na)	APHA 3120 B 2017
	None	None
	None	None
	Dieldrin	None
	None	None
	None	None
	None	None
	None	None
	Aluminum as Al	None
Mineral Water Drinking Water Swimming Pool Potable & Domestic Industrial Effluents Sewage Water Untreated Raw Water	pH Total Dissolved Solids	In-house method MBC-TM-212 based on Method (Mettler Toledo) In-house method MBC-TM-216 based on Method (Milwaukee)
Molluscs	None	None
Non-alcoholic Beverage Sauces, Herbs, Spices And Condiments	Crude Ash	In-house method MBC-TM-201 based on MS ISO 5984:1996
Nutritional Supplements	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Nutritional Supplements E	Crude Ash	In-house method MBC-TM-201
Nuts And Nut Products	None	None
	None	None
Oil E	Total Aerobic Microbial Count	British Pharmacopoeia (BP) 2017,
Ointment E	Total Combined Yeasts / Moulds	Pour Plate Method Page V-A500
Ointment Powder	Count	None
Patch/ Plaster E	Count	None
	Detection of Pseudomonas	None
Pharmaceutical	None	None
	None	None
	None	None
	Total Viable Aerobic Count	BP 2007 Appendix XVI B.2 (Count)
	None	None
	Metals	In-house Method LWI-MFF
	Arsenic	In-house Method LWI-MPH
	Total Aerobic Microbial Count	XVI B
Pill Liquid (syrup/ Water)	Detection of Escherichia coli	British Pharmacopoeia (BP) 2017,
Potable & Domestic	Quantification of Total Coliform	APHA 9223 B
Poultry And Poultry Products Eggs And Egg Product	Yeast and Mold Counts	In-house method MBC-TM-106 based on Compact Dry -œNissui-• YM
	None	Manual (BAM) Chapter 4, September 2002 and AOAC official method 983.25
Powder/ Granules	Total Aerobic Microbial Count	Volume V, Appendix XVI B,
Products Fish And Fish Products Meat, Poultry And	Crude Protein content	In-house method MBC-TM-205 based on MS ISO 5983-2:2011
Products)	None	Page V-A494
	None	Sulphites calculated as Sulphur
	None	Ref : Official Methods of
Raw Water E Treated Water E	On-site sampling	In-house method MBC-TM-289 based on MOH Guidelines
	pH	HACH method 8156
Recycled Water	None	None
Ro Water	None	None
	Dichloramine)	None
	Total Viable Microbial Count	ISO 23500: 2014
	Total Viable Microbial Count	AAMI/ANSI 13959: 2014
	None	None
	None	APHA 9222 D (Membrane Filtration),
Saline Water	None	None
	Ammonia -” N	In-house Method 0554 based on
	None	None
	Temperature	APHA 2550 B, 2005
Soft Gel Capsules	Count	None

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Solution Others (soap, Perfume, Cleanser And Oil	Detection of Escherichia coli	British Pharmacopoeia (BP) 2017, Volume V, Appendix XVI B,
Sugar E	Moisture	AOAC Official Method 925.45B
Sugar Products Nuts, Fruits And Vegetables And Derived	Total Fat content	In-house method MBC-TM-202 based on MS 954:Part 4:1985
Sugar Products, Honey	None	None
Surface Swab	Sampling	ISO 18593:2004
	Sampling	Compendium of Methods for the
Surface Water	None	None
	None	Method Edition (2005)
	Alkalinity	APHA 2320 B Titration Method 21s
	None	Method by Discrete Analyzer
	Caustic Alkalinity as CaCO3	APHA - 2320B
	Barium as Ba	None
	None	(MPN Technique)
	Conductivity	APHA 2510 B, 2017
	Chlorate	Metrohm IC Application, Note No.
	None	Metrohm Technical Note
	Hydrocarbon	APHA 5520 F 2017
	Vanadium (V)	APHA 3120 B, 2017
	Free Carbon Dioxide (by calculation)	APHA 4500 COz D, 2017
	None	None
	None	APHA 2550 B, 2017
	Chromium, Cr	None
	VOCs	EPA Method 5030B: 1996; EPA
	None	None
	None	None
	None	(Membrane Filter Technique)
	None	None
Swimming Pool Water	None	None
	Total Solids	APHA - 2540B
	Metal:	None
	Bromide as Br	None
	Resistivity	In-house Method SOP-0217-2036
	Total Chlorine as Cl2	APHA 4500-Cl G, 21st Edition 2005
	Biochemical Oxygen Demand @ 20 °C	APHA 5210 B
	None	None
	None	None
	None	None
	None	None
	None	None
Tablet	None	Pour Plate Method Page V-A500
	None	None
	Total Yeast Mould Count	Appendix F1

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Vegetable Products	Enumeration of Coagulase-	ISO 6888-1:1999 + MBC-TM-114
	None	None
Vegetables And	Detection of spp.	BS EN ISO 6579:2002 + A1:2007
	None	None
	food by liquid chromatography	JKM F 0804
	Cholesterol	None
Water	None	None
	None	None
	and Escherichia coli	None
	None	filtration)
	Clostridium perfringens	ISO 14189: 2013 (E)
	None	None
	None	None
	None	None
	None	(2005)
	None	21% Edition (2005)
	Colour	APHA 2120 C 2005
	Determination of Volatile	Method EPA 524.2 By Purge & Trap
	Oxygen Demand (COD) for High	APHA Method 5220D
	None	In-house Method JKM W 0502,
	None	on APHA 4110 B-”lon
	Colony Count at 36°C	JKM M 2038, ISO 6222:1999 (E)
	Intestinal Enterococci	i) WI 16 -” Sample Preparation for
	Enumeration of Clostridium	JKM M 2035
	Detection of pathogenic	JKM B 0201 Detection of pathogenic
	Identification and Quantification	JKM B 0406
	pH	APHA - 4500-H B
	None	None
	None	None
	None	None
	None	None
	Boron	HACH METHOD 8015
	None	None
	E. coli	APHA 9221 F (MPN Method)
	None	None
	Total Organic Carbon	APHA 5310 C
	Heterotropic plate count	APHA 9215 B, 22"4 Edition (2012)
	None	(Membrane Filtration Technique)
	None	None
	Metals by ICP	None
	None	None
	None	None
	None	None
	None	None
	None	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	pH	ASTM D 1293-2005 (Method B) APHA 4500 H* B 2005/2017
	pH	ASTM D1293-2005 (Method B) APHA 4500 H* B 2005/2017
	None	None
	Turbidity	APHA 2130B
	On-site Sampling & Testing (pH Temperature, Turbidity)	In-house Method SOP-0222-2001 & SOP-0222-2003
	Coliform	APHA 9221 B, Edition, 2005
	Heterotrophic plate count in	APHA Method 9215 D, Edition,
	None	None
	None	None
	pH Value	BS 1377-3 : 2018 Clause 12
	pH Value	BS 1377-3 : 2018 Clause 12
	None	None
	Calcium Hardness as CaCO3,	APHA 3500-Ca B, 2017
	Magnesium (by Calculation Method)	APHA 3500-Mg B, 2017
	Nitrate	APHA E, 2017
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	None	None
	Aluminium	None
	None	None
	Organochlorine Pesticide	APHA 6630 B, Edition
	Ammoniacal Nitrogen	APHA F, 24" Edition
	Arsenic	APHA 3125 B, Edition
	Mercury	In-house method, SGS-TM-ENVI-003, based on APHA 3125 B
	2,4-dichlorophenoxyacetic acid (2,4-D)	In-house method, SGS-TM-02-045, based on Agilent Application Note 5991-5731 EN (LCMSMS)
	Heavy Metals by ICP-MS	None
	Endotoxin	Test for Bacterial Endotoxin, BP 2022
	pH	APHA 4500 H*B
	Oil & Grease	APHA 5520 B
	Color	APHA 2120 B
	Color	APHA 2120 F

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	pH	APHA 4500 H* B
	Turbidity	APHA 2130 B
	Conductivity	APHA 2510 B
	None	None
	None	None
	None	None
	Escherichia coli and coliform	ISO 9308-1: 2014 (E) / Enumeration
	Pseudomonas aeruginosa	ISO 16266:2006 (E) / Detection and
	Ammonium nitrogen	BS 6068: Section 2.7:1984 ISO 5664:1984
	Chemical Oxygen Demand	BS 6068: Section 2.34:1988
	Suspended solids	BS 2690-Part 120:1981
	Dissolved solids	BS 2690-Part 121:1981
	None	ASTM D 523-82
	COD	APHA 5220 D
	None	None
	Free Chlorine	APHA' 4500 -" CI G
	Count	(Pour Plate, Spread Plate and
	Anaerobes (Clostridia)	BS 6068-4:9: 1993
	Gross Alpha & Gross Beta	None
	Arsenic as As	None
	Antimony as Sb	None
	Aluminium as Al	None
	Beryllium as Be	None
	Cadmium as Cd	None
	Chromium as Cr	None
	Lead as Pb	None
	Silver as Ag	None
	Selenium as Se	None
	Thallium as TI	None
	Mercury as Hg	In-house Method LWI-MWE 037 based on APHA 3112 B by
	Mercury as Hg	Mercury Analyser
	Nitrate	In-house Method LWI-MWE 032 based on HACH Nitrate
	Nitrate	Test Comparator
	Sulfide	HACH Method 8131
	Chlorine, Free Residual	In-house Method LWI-MWE
	Chlorine, Free Residual	034 based on DPD-Palintest
	Chlorine, Free Residual	Test Comparator
	Total Chlorine	In-house Method LWI-MWE
	Total Chlorine	035 based on DPD-Palintest
	Total Chlorine	Test Comparator
	Colour (ADMI)	APHA 2120 F
	Heterotrophic Plate Count	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Pseudomonas aeruginosa	In-house Method LWI-MME (APHA) 007
	Pseudomonas aeruginosa	based on APHA 9213 E, 2020
	Escherichia coli and Coliform	Escherichia coli and Coliform Bacteria. Part 1: Membrane filtration
	Escherichia coli and Coliform	method
	Escherichia coli and Coliform	Method No: MOH (1)
	Escherichia coli and Coliform	ISO 29981 : 2010 (E), IDF 220 :
	Escherichia coli and Coliform	2010 (E) Milk Products -
	None	None
	None	None
	None	None
	None	None

SCOPE OF TESTING : MICROBIOLOGY

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques