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LABORATORY LOCATION/	Makmal Kesihatan Awam Ipoh
CENTRAL OFFICE:	Kementerian Kesihatan Malaysia Lot 39052 Jalan Jelapang , 30020,
	PERAK
	MALAYSIA
ACCREDITED SINCE :	25 JULY 2024
FIELD(S) OF TESTING:	CHEMICAL
	MICROBIOLOGICAL

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:	Makmal Kesihatan Awam Ipoh Kementerian Kesihatan Malaysia Lot 39052 Jalan Jelapang , 30020, Perak	
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
All Types Of Food And Drinks	Saccharin and Cyclamete	In- house Method, Ref. No. MOH E03- 006, Based on JAOAC Vol. 71, No.5, Page 934 - 937
Beverages, Tea And Coffee	Caffeine	J03-016, Based on Journal Food Chemistry Toxic, Vol. 27, No. 1, Page 49-51
Biscuits	Melamine	In- house Method, Ref. No. MOH J03- 025, Based on USDA / CFSAN Laboratory Information Bulletin No. 4396, Volume 23, 2007 by Liquid Chromatography Tandem Mass Spectrometry

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Coffee & Coffee Mixture	Coffee & Caffeine Content	In-house Method, Ref. No. MOH J03-034 based on Malaysian Standard MS 1360:1994; reflux method and liquid chromatography
Coffee Powder	Ochratoxin A	In-house Method, Ref. No. MOH L03- 006, Based on VICAM OchraTest? Instruction Manual
Fish	Formaldehyde	In- house Method, Ref. No. MOH E03-014, Based on AOAC 931.08, 2000
Fish And Fish Products	Malachite green Leucomalachite green Crystal Violet Leucocrystal violet	In-house Method, Ref. No. MOH D03-029, Based on Journal of Chromatography A, 1218 (2011) 1632-1645, Liquid-Liquid page Extraction, LCMS/MS
Flour	Benzoyl peroxide	In-house Method, Ref. No. MOH E03-024, Based on J. Chromatography A, 2004, 1040, page 209-214
Food	Boric Acid Water Soluble Synthetic Food Colours (Refer Appendix I)	In-house Method, Ref. No. MOH E03-001, Based on AOAC 970.33, 1995 Chap. 47, page 11 In- house Method, Ref. No. MOH E03-003, Based on The Association of Public Analysis
	Sulphur dioxide	(1960) In- house Method, Ref. No. MOH E03-007, Based on JAOAC Vol. 69, No. 5, page 827
	Moisture	In-house Method, Ref No. MOH: J03- 00't, Based on AOAC International, 17th Edition, Volume II
Honey	Chloramphenicol	In-house Method, Ref. No. MOH D03-009, Based on Poster B105, 5 International Symposium on Hormone and Veterinary Drug Residue Analysis, Antwerp, Belgium, May 16-19, 2006. Solid Phase Extraction (SPE), LCMS/MS
I) Fish And Fish Products Ii) Meat And Meat Products	Antibacterials : Sulphadiazine Sulphathiazole Sulphamerazine Sulphadimidine Sulphamonomethoxine Oxolinic acid Sulphadimethoxine Sulphaquinoxaline Nicarbazin	In-house Method, Ref. No. MOH Based on Leo MLL. Nollet, Food Analysis by HPLC, Second Edition, 2000, page 622- 624. Liquid-liquid Extraction, HPLC

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Sulphonamides and potentiated sulphonamides: Sulphamerazine Sulphamonomethoxine Sulphadimethoxine Sulphadimethoxine Sulphadimidine Sulphathiazole Sulphaquinoxaline Trimethoprim 10. Ormetoprim Quinolones: 4 Danofloxacin 2. Difloxacin 3. Oxolinic acid Macrolide: 4 Tilmicosin	In-house Method, Ref. No. MOH Based on Analytical Methods, 16 (2013), page 4172- 4178 & Analytical Chimica Acta, 637 (2009) page 68-78, Dispersive Solid Phase Extraction (dSPE), LCMS/MS
	2-amino-albendazole sulfone Albendazole sulfoxide Albendazole sulfone Thiabendazole Flubendazole Albendazole Mebendazole Febantel Fenbendazole 10 Oxfendazole 11 Oxibendazole 12 Triclabendazole	In-house Method, Ref. No. MOH DO3-017, Based on Leo MLL. Nollet, Food Analysis by HPLC, Second Edition, 2000. Liquid-liquid Extraction, LCMS/MS
	Tetracycline Oxytetracycline Doxycycline Chlortetracycline	In-house Method, Ref. No. MOH D03-025, Based on Journal of Chromatography A, 987 (2003), 227-233, Solid Phase page Extraction (SPE), LCMS/MS
	Tetracycline Oxytetracycline Chlortetracycline Doxycycline	In-house Method, Ref. No. MOH D03-003, Based on AOAC Official Method 995.09,2000, Chapter 23, page 20, Solid Phase Extraction, HPLC
	Quinolones and Fluoroquinolones: 1. Oxolinic Acid 2. Ciprofloxacin 3. Danofloxacin 4. Difloxacin 5. Enrofloxacin 6. Marbofloxacin 7. Norfloxacin 8. Sarafloxacin	In-house Method, Ref No. MOH D03 - 020, Based on Journal of Chromatography A, 1008, 2005, page 32 - 39 and Marni Safar, Dissertation, UM, 2010 page 26 84, Solid - phase Extraction (SPE), LC MSMS
	Nitrofuran metabolites: 1. Furazolidone metabolite: 3 amino-2-oxazoilidinone 2. Nitrofurantoin metabolite: 1 aminohydantoin 3. Nitrofurazone metabolite: Semicarbazide 4. Furaltadone metabolite: 3 amino-5-morpholinomethyl 1,3-oxazoilidin-2-one	In-house Method, Ref No. MOH D03-006, Based on Journal of Chromatography A, 939, no.1, 2001 page 49-58. Solid-phase Extraction (SPE), LC - MSMS

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
I. Pasta Ii. Jam Iii. Soy Sauce Iv. Sauces V. Fish & Fish Products	Benzoic acid and Sorbic acid	In-house Method, Ref No. MOH E03- 002, Based on Food J. Assoc. Off. Anal. Chem. 70(5) pg. 892-896. Reverse-Phase Liquid Chromatograpic Determination of Benzoic and Sorbic Acids in Food
Liquid Milk	Aflatoxin M1	In-house Method, Ref. No. MOH L03-007, Based on VICAM AflaM1 ? Instruction Manual, Method 5.1 HPLC Procedure for Fluid Milk
Meat And Meat Products	Beta-agonists: 1. Cimaterol 2. Salbutamol 3. Terbutaline 4. Clenbuterol 5. Mabuterol 6. Ractopamine	In-house Method, Ref. No. MOH D03-027, Based on AFRL for VDR Workshop 2013: Analytical Method for Beta-Agonist, 13th -" 16th August 2013. Solid Phase Extraction (SPE), LC-MS/MS
Milk Powder	Aflatoxin M1	In-house Method, Ref. No. MOH L03-014, Based on R-Biopharm Application notes of AflaPrep® M 2010 HPLC Instruction Manual, Ref. No: A1-P04. V3
Nuts And Nuts Products, Cereal And Confectionery	Total Aflatoxin (B1,B2,G1,G2)	In-house Method, Ref No. MOH LO3-011, Based on Kit Instruction Manual using Agrastrip Test Kit
Peanuts And Treenuts	1.Aflatoxin B1 2.Aflatoxin B2 3.Aflatoxin G1 4.Aflatoxin G2	In-house Method, Ref. No. MOH L03-001, Based on AOAC 991.31, 2000 & VICAM AflaTestTM Instruction Manual.
Rice And Wheat	Ochratoxin A	In-house Method, Ref. No. MOH L03-005, Based VICAM on OchraTest? Instruction Manual
Sauces	Methylparaben (MP) 2. Ethylparaben (EP) 3. Propylparaben (PP) 4. Butylparaben (BP)	In- house Method, Ref. No. MOH E03-019, Based on Journal of Chromatography A, 1073 (2005) Page 393-397
Soft Drink	Acesulfame Potassium	In-house Method, Ref. No. MOH E03-009, Based on BS EN 12856:1999, 1999, page 1-17
Wheat Flour	Zearalenone	In-house Method, Ref. No. MOH L03- 004, Based on VICAM Zearala Test? Instruction Manual, Method 3.3 HPLC Procedure for Corn

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Milk And Milk Products	Sulphonamides group: 1. Sulphamerazine 2. Sulphamonomethoxine 3. Sulphadimethoxine 4. Sulphadiazine 5. Sulphapyridine 6. Sulphadimidine 7. Sulphathiazole 8. Sulphaquinoxaline Phenicols group: 1. Chloramphenicol 2. Florfenicol 3. Thiamphenicol Benzimidazoles group 1. 2-aminoalbendazole sulfone 2. Albendazole sulfoxide 3. Albendazole sulfoxide 3. Albendazole 5. Flubendazole 6. Albendazole 7. Mebendazole 8. Febantel 9. Fenbendazole 10. Oxfendazole 11. Oxibendazole	In-house Method, Ref. No. MOH D03-013, Based on method in Journal of Chromatography A, 1205 (2008), page 10-16, Dispersive Solid Phase Extraction (dSPE), LCMS/MS
Beverages	Color: 1. Allura Red AC 2. Amaranth 3. Brilliant Blue FCF 4. Erythrosine BS 5. Fast Green FCF 6. Green S 7. Ponceau 4R 8. Sunset Yellow FCF 9. Tartrazine 10.Acid Red 1 11.Acid Blue 12.Acid Red 26 13.Orange II 14.Patent Blue I5.Ponceau 6R	In-house method Ref: No. MOH E03-005 Based on method in Journal of Talanta, 74 (2008), page'1408-1413.
Milk	Aminoglycosides: 1) Streptomycin 2) Dihydrostreptomycin 3) Spectinomycin 4) Paromomycin 5) Gentamycin oi npflrnv6in	In-house method, Ref.No. MOH D03- 032, Based on Talanta, 154 (2016) page 38 - 45, Dispersive Solid Phase Extraction (dSPE), LCMS/MS

SCOPE OF TESTING: MICROBIOLOGICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Drinking Water, Mineral Water, Raw Water, Treated / Potable Water.	Enumeration of Mesophilic aerobes :- a.Standard Plate Count Method b.Surface Spread Plate Method	Ref. No. MOH K03-301, AS 1766.2.1 ? 1991 of Australian Standard
	Enumeration of Coliform and E. coli - MPN Method	Ref. No. MOH K03-303 (2), AS 1766.2.3 ? 1992 of Australian Standard

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Detection of Vibrio cholerae	In-house Method, Ref. No. MOH K03- 409, Method Examination fo Specific Organism-Vibrio cholerae based on MMEF Method Section 10 Part 4.
Food And Water	Bacillus cereus	Ref. No. MOH K03-107 (1), ISO 7932:2004 (E) ? Horizontal method for the enumeration of presumptive Bacillus cereus ? Colony ? count technique at 30?0
	Escherichia coli	Ref. No. MOH K03-122 (1), ISO 7251: 2005 (E)? Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of presumptive Escherichia coli? Most probable number technique
	Coliforms	Ref. No. MOH K03-121 (1), ISO 4831: 2006 (E)? Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of Coliforms? Most probable number technique
	Vibrio vulnificus	Ref. No. MOH K03-111 (2), DD ISO/TS 21872- 2 : 2007 (E) Microbiology of food and animal feeding stuffs ? Horizontal methor for the detection of potentially enteropathogenic Vibrio spp. Part 2 : Detection of species other that Vibrio parahaemolyticus and Vibrio holerae (Vibrio vulnificus)
	Mesophilic lactic acid bacetria	Ref. No. MOH K03-116 (1), ISO 15214:1998 (E)? Microbiology of food and animal feeding stuffs? Horizontal method for the enumeration of mesophilic lactic acid bacteria? Colony count technique at 30?C
	Faecal Coliforms	In-house Method, Ref. No. MOH K03- 421, Manual for Microbiological Examination for food (MMEF) ? Part 4 Section 2 ? Enumeration of Faecal Coliforms

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Total Plate Count	Ref. No. MOH K03-101 (1), ISO 4833- 1:2013 (E) ? Microbiology of the food chain ? Horizontal method for the enumeration of microorganisms ? Part 1: Colony count at 30?C by the pour plate technique
	Yersinia Enterocolitica	Ref. No. MOH K03-129 (1), ISO 1027:2003 (E) ? Microbiology of food and animal feeding stuffs ? Horizontal method for the detection of presumptive pathogenic Yersinia Enterocolitica
Milk And Milk Products	Enterobacter sakazakii	Ref. No. MOH K03-115, ISO/TS 22964:2006(E) IDF/RM 210:2006(E) Milk and milk products- Detection of Enterobacter sakazakii
Perishable Samples Ready To Eat Food, Frozen Fish, Meat Product And Milk Product	aerobes :- a. Surface Spread Plate Method	In-house Method, Ref. No. MOH K03-401, Examination of Specific Organism- Standard Plate Count based in Section 1 part 4 of MMEF
	Enumeration of Coliform and E.coli - MPN Method	1766.2.3 -" 1992 of Australian Standard
Selected Types Of Processed And Prepared Foods	Enumeration of Staphylococcus aureus	Ref. No. MOH K03-205, AOAC Official Method 2003.07 (3M Petrifilm)
Food	Listeria monocytogenes	Ref. No. MOH (1), ISO 11290-1:1996/Amd 1:2004 (E) Microbiology of food and animal feeding stuffs- Horizontal method for the detection and enumeration of Part 1: monocytogenes- Detection Method
	Coliform and Escherichia coli	Ref. No. MOH K03-203, AOAC Official Method 991.14 (3M Petrifilm)
	Aerobic Count Plate	Ref. No. MOH K03-201, AOAC Official Method 990.12 (3M Petrifilm)
	Salmonella spp.	Ref. No. MOH K03-108 (1), ISO 6579:2002(E), Microbiology of food and animal feeding stuffs-Horizontal method for the detection
	Salmonella spp.	of Salmonella spp.

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Vibrio parahaemolyticus 2. Vibrio cholerae	Ref. No. MOH K03-111 (1), ISO/TS 21872-1:2007(E) Microbiology of Food and Animal Feeding Stuffs- Horizontal method for the detection of potentially enteropathogenic Vibrio spp Part 1: Detection of Vibrio parahaemolyticus and Vibrio cholerae
	Coagulase - positive staphylococci	enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) ? Part 1: Technique using Baird-Parker agar medium
	Yeast and Mould	Ref. No. MOH K03-202 (1), AOAC Official Method 997.02 (3M Petrifilm)
Meat And Meat Products	Pseudomonas spp	Ref. No. MOH K03-127, ISO 13270:2010 (E) - Meat and meat products - Enumeration of presumptive Pseudomonas spp
Finished Water	Aeromonas spp	EPA Method 1605: Aeromonas in Finished Water by Membrane Filtration using Ampicillin-Dextrin Agar with Vancomycin (ADA-V), October 2001
Water	Escherichia coli & Coliform	ISO 9308-1 :201 4l Amd.201 6(E) Water quality - Enumeration ol E. coli and coliform bacteria, Part 1: Membrane filtration method for waters with low bacterial background flora
	Salmonella spp.	ISO 19250:2010(E) Water quality - Detection of Salmonella spp"