Issue date: 29 May 2025
Valid Until: -

NO: SAMM 188

LABORATORY LOCATION/ CENTRAL OFFICE:	Eurofins NM Laboratory Sdn. Bhd., Penang 78 & 80, Lorong Perda Selatan 1 Bandar Perda, 14000 Bukit Mertajam Pulau Pinang. , 14000, PULAU PINANG MALAYSIA
ACCREDITED SINCE :	29 MAY 2025
FIELD(S) OF TESTING:	CHEMICAL MICROBIOLOGY
SITE:	
1 . SITE LABORATORY(HQ) :	Eurofins NM Laboratory Sdn. Bhd., Penang, 78 & 80, Lorong Perda Selatan 1 Bandar Perda, 14000 Bukit Mertajam Pulau Pinang., MALAYSIA
FIELD(S) OF TESTING :	CHEMICAL,MECHANICAL

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:	Eurofins NM Laboratory Sdn. Bhd., Penang 78 & 80, Lorong Perda Selatan 1 Bandar Perda, 14000 Bukit Mertajam Pulau Pinang. , 14000, Pulau Pinang
FIELD(S) OF TESTING :	CHEMICAL, CHEMICAL

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Emissions From Stationary Sources Stack Gas	Oxygen Carbon Dioxide Sulfur Dioxide (SO2)	USEPA 40 CFR 60, App. A, Method 3A USEPA 40 CFR 60, App. A, Method 6C
	Nitrogen Oxide (NOx)	USEPA 40 CFR 60, App. A, Method 7E

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Carbon Monoxide (CO)	USEPA 40 CFR 60, App. A, Method 10
	Total Organic compounds (NMVOC)	USEPA 40 CFR 60, App. A, Method 25A
Acoustics Noise	Measurement and assessment of Environmental Noise	ISO 1996-1 : 2003
Environmental Monitoring	None	None
	None	None
	None	None
Water & Waste Water . Industrial Effluents Sewage .	pH Value (In-situ) Temperature (In-situ)	APHA 4500-H+.B APHA 2550.B (Part 1)
Environmental Monitoring Emissions From Stationary . Sources Stack Gas .	Particulate Matter Sulfur Dioxide Nitrogen Oxide	USEPA 40 CFR 60, App. A, Method No. 5 USEPA 40 CFR 60, App. A, Method No. 6 USEPA 40 CFR 60, App. A, Method No. 7
	Sulfuric Acid Sulfur Dioxide	USEPA 40 CFR 60, App. A, Method No. 8
	Metals	USEPA 40 CFR 60, App. A, Method No. 29
	Hydrogen Halide Halogen	USEPA 40 CFR 60, App. A, Method No. 26A (Isokinetic Method)
	Determination of concentration and mass flow of particulate matter in flue gas for stationary sources emissions Dark Smoke	MS 1596: 2003 (Gravimetry) BS 2742:2009 Ringelmann and miniature Smoke charts
Cosmetics Products	Arsenic Lead Cadmium Mercury	In-house method EUBM.SOP.TM.DG.03. based ACM THA 05
Traditional Medicine	Arsenic Lead Cadmium Mercury	In-house method EUBM.SOP.TM.FD.01. based AOAC 999.10
Calcium Hydroxide	Assay on Calcium Hydroxide Arsenic Carbonate Lead Magnesium and Alkali Salts Acid insoluble Substances	FCC 10
	Fluoride Cadmium Heavy metal	FCC 10, Appendix IIIB, Method III FCC 10, Appendix IIIB, Method III USP 37 Method
Calcium Carbonate	Assay of Calcium Carbonate Arsenic Barium Iron Lead Limit of fluoride Limit of Magnesium & Alkali Salts Mercury Loss on drying Acid insoluble Substances	USP 41
	Heavy metals	USP 37
	Chloride	Ph. Eur Monograph 0014

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Liquid And Solid Sample	General techniques for obtaining infrared spectra for Qualitative Analysis	ASTM E 1252-1998 (FTIR)
	Identification of functional groups of organic and inorganic compound	In-house method EUBM.SOP.TM.FA.02 based on ASTM E1252-1998 (FTIR)
Polymer Material	Mass loss Mass gain Residue Decomposition temperature	MS ISO 7111 : 1998 TGA
Crystalline And Semi- Crystalline Plastic	Temperature, Enthalpy of Melting & Crystallization	MS ISO 11357-3: 2003 DSC
Polymer Material (plastic, Rubber, Polyolefin Resins And Other Plastics)	Oxidation Induction Time (OIT)	MS ISO 11357-6: 2004 DSC
Ceramic Ware, Glass-ceramic Ware And Glass Dinnerware In Contact With Food	Release Cadmium and Lead	ISO 6486-1 :1999
Materials And Articles In Contact With Foodstuffs (plastics)	Overall migration into aqueous food simulants by total immersion. Distilled water Acetic acid 3% Ethanol 10%	BS EN1186-3: 2002 (Method A)
	Overall migration into aqueous food simulants using a pouch Distilled water Acetic acid 3% Ethanol 10%	BS EN 1186- 7: 2002
	Overall migration into aqueous food simulants by article filling Distilled water Acetic acid 3% Ethanol 10%	BS EN 1186-9 : 2002
	Overall migration into olive oil by Total Immersion Overall migration into olive oil using Pouch Overall migration into olive oil by Article Filling	BS EN 1186-2:2002 BS EN 1186-6:2002 BS EN 1186-8:2002
Animal Feed	Loss on drying (moisture/ dry matter) at 95-100?C Loss on drying (moisture/dry matter) at 135?C Fat (Crude)	AOAC 934.01 AOAC 930.15 AOAC 920.39
	Ash	AOAC 923.03 AOAC 942.05
	Protein (Crude) Fibre (Crude)	AOAC 984.13 AOAC 978.10
Food, Flour	Sulfur Dioxide	In-house method EUBM.SOP.TM.FD.20 based on The Chemical Analysis of Food by David Pearson, Edition
	Water Activity	BS ISO 21807: 2004

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Total Aflatoxin	In-house method EUBM.SOP.TM.FD.18 based on ELISA (Direct competitive Enzyme- linked immunosorbent assay method)
	pH	AOAC 943.02
Food	Moisture: Air-oven Method Ash Protein Fat Energy Carbohydrate Calories Sodium Chloride	Laboratory procedure in Nutrient Analysis of Foods (Division of Human Nutrition Institute for Medical Research, Kuala Lumpur, 1996) Guide to Nutrition Labelling and Claims, MOH, Malaysia AOAC Chapter 6, Methods of analysis for nutrition labeling (1993) AOAC Chapter 6, Methods of analysis for nutrition labeling (1993) MS 1120:2004
	Metal Contaminants Zinc Cadmium Lead Copper Iron Arsenic Antimony Selenium Mercury Tin	In-house method EUBM.SOP.TM.FD.01 (ICP-OES,ICP-MS) based on AOAC 999.10
	Fatty Acid Profile	None
	Total Saturated Fat	None
	Butyric acid (C4:0) Caproic acid (C6:0) Caprylic acid (C8:0) Capric acid (C10:0) Lauric acid (C12:0) Tridecanoic acid (C13:0) Myristic acid (C14:0) Pentadecanoic acid (C15:0) Palmitic acid (C16:0) Margaric acid (C17:0) Stearic acid (C18:0) Arachidic acid (C20:0) Heneicosanoic acid (C21:0) Behenic acid (C22:0) Tricosanoic acid (C23:0) Lignoceric acid (C24:0)	AOAC 996.06
	Total Monounsaturated Fat	None
	(cis)	None
	Myristoleic acid (C14:1) cis-10 Pentadecanoic acid	None
	(C15:1) Palmitoleic acid (C16:1) cis-10-Heptadecenoic acid Oleic acid (C18:1n9c) cis-11 Eicosenoic acid (C20:1) Erucic acid (C22:1n9) Nervonic acid (C24:1n9)	None
	None	None
	Chemical:	Chemical:
	Chemical:	Chemical:
	Chemical:	Chemical:

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Enumeration of Bacillus cereus	Bacteriological Analytical Manual (BAM)- Chapter 4
	Coliform	Bacteriological Analytical Manual (BAM)- Chapter 4
	Total Plate Count	Bacteriological Analytical Manual (BAM)- Chapter 3
	nan	nan
Food (continued)	Total Polyunsaturated Fat (cis) Linoleic acid (C18:2n6c) y-Linoleniacid (C18:3n6) Linoleni acid (C18:3n3) cis-11,14-Eicosadienoic acid (C20:2) cis-8,11,14-Eicosatrienoic acid (C20:3n6) cis-11,14,17-Eicosatrienoic acid (C20:3n3) cis-5,8,11,14,17-Eicosapentaenoic acid (C20:5n3) Arachidonic acid (C20:4n6) cis-13,16-Docasadienoic acid (C22:2n6) cis-4,7,10,13,16,19-Docosahexaeno	AOAC 996.06
	Omega 3 Omega 6 EPA DHA	AOAC 996.06
	Cholesterol	AOAC 994.10
Coffee And Coffee Products	Caffeine	BS ISO 20481:2008
(continued)	None	None
	Resistance to Permeation by Chemical2018 Resistance to Permeation by Chemical	Resistance to Permeation by Chemical 2018
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer(Ref. No. UPB/T/004) Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer (Ref. No. UPB/T/004)
	Resistance to Permeation by Chemical2018 Resistance to Permeation by Chemical	Resistance to Permeation by Chemical 2018
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer(Ref. No. UPB/T/004) Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer (Ref. No. UPB/T/004)
Food Stuffs	Benzoic Acid	In-house method

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Sorbic Acid	EUBM.SOP.TM.FD.12 based on
	Sorbic Acid	Journal Chromatography A, 1073, 2005. Page 393-397
	None	None
Tea And Instant Tea	Caffeine	BS ISO 10727:2002
Cured Meat	Sodium Nitrite	AOAC 973.31
Flour	Fat	AOAC 922.06
	Fat	(Acid Hydrolysis Method)
	GENMAS 1 Genetically Modified	PT Design G01
Cacao Products	Fat	AOAC Methods of Analysis for Nutrition Labelling, (1993) Chapter 18.22 (AOAC 963.15 ? Soxhlet)
Milk & Milk Products	Fat	AOAC Methods of Analysis for Nutrition Labelling, (1993) Chapter 18.9 (AOAC 989.05 ? Modified Majonnier)
Beverage, Chocolates Confectionary	Total Sugar Reducing sugar Sugar profile	None
	Fructose Glucose	AOAC 982.14
	Sucrose	None
	Maltose	None
	Lactose	None
Honey	Total Sugar Reducing sugar Sugar profile Fructose	AOAC 977.20
	Glucose	None
	Sucrose	None
Sugars And Sugar Products	Total Sugar	AOAC 968.28
Solid Food	Sodium Potassium Calcium	In-house method EUBM.SOP.TM.FD.25 based on AOAC 984.27 AOAC Journal, vol. 92 No.pp 1484-1518 (35). 2009
	Total Dietary Fiber Insoluble Dietary Fiber Soluble Dietary Fiber	AOAC 991.43
Circuit Board	Anion	None
	Fluoride	None
	Chloride	IPC-Test Manual-650
	Sulphate Phosphate Bromide	Method Number: 2.3.28 Rev. B Ion chromatography
	Nitrite	None
	Nitrate	None
Surface Of Circuit Board And	Anion	None
Electrotechnical Products (polymers)	Phthalates Diisobutyl Phthalate Di-butyl phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-n-octyl phthalate Di-isononyl phthalate Di-iso-decyl phthalate	IEC 62321-8, Edition 1.0:2017
Electrotechnical Product (metal)	Cadmium Lead	IEC 62321-5, Edition 1.0 : 2013-06

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
	Presence of Hexavalent Chromium (IV)	IEC 62321-7-1, Edition 1.0 : 2015-09
Electrotechnical Product (polymers And Electronics)	Chromium Hexavalent	IEC 62321-7-2, Edition 1.0:2017
	Total Bromine	IEC 62321-3-2, Annex A, Edition 1.0 : 2013-06 (Oxygen bomb combustion)
	Cadmium Lead Chromium	IEC 62321-5, Edition 1.0 : 2013-06
Electrotechnical Product (polymers, Metals And Electronics)	Disassembly, disjointment and mechanical sample preparation	IEC 62321-2, Edition 1.0 : 2013-06
	Cadmium Lead Mercury Total Chromium Total Bromine	IEC 62321-3-1, Edition 1.0 : 2013-06 (X-ray Fluorescence Spectrometry)
	Mercury	IEC 62321-4, Edition 1.0 : 2013-06
	Polybrominated Biphenyls (PBB) Dibromobiphenyl Tribromobiphenyl Tetrabromobiphenyl Pentabromobiphenyl Hexabromobiphenyl Heptabromobiphenyl Octabromobiphenyl Nonabromobiphenyl Decabromobiphenyl Polybrominated Diphenyl Ethers (PBDEs) Monobromodiphenyl Ether Dibromodiphenyl Ether Tribromodiphenyl Ether Tetrabromodiphenyl Ether Ether Hexabromodiphenyl Ether Heptabromodiphenyl Ether Octabrom	IEC 62321-6, Edition 1.0 : 2015-06
Raw Natural Rubber	Hydroxylamine Neutral Sulphate (HNS)	In-house method based on EUBM.SOP.TM.IP.36
	Hydroxylamine Neutral Sulphate (HNS)	In-house method based on
	Hydroxylamine Neutral Sulphate (HNS)	EUBM.SOP.CTM.IP.26
Rubber	Myristic Acid (C-14) Pentadecylic Acid (C-15) Palmitic Acid (C-16) Margaric Acid (C-17) Stearic Acid (C-18) Oleic Acid (C-18:1) Linoleic Acid (C-18:2) Arachidic Acid (C-20)	In-house method EUBM.SOP.TM.IP.16 (GC-MS, GC- FID)
	None	None
	None	None
Paint And Similar Polymer Coating Material	Antimony Arsenic Barium Cadmium Chromium Lead	In-house method EUBM.SOP.TM.IP.27 based on AOAC 974.02 (ICP-OES)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Mercury Selenium	None
Toys & Toys Material	Migration of Certain Elements Aluminium Antimony Arsenic Barium Boron Cadmium Chromium Cobalt Copper Lead Manganese Mercury Nickel Selenium Strontium Tin Zinc	EN 71: Part 3: 2019 ICP-OES
	Migration of Certain Elements Arsenic Antimony Barium Cadmium Chromium Lead Mercury Selenium	ASTM F963-11 Edition 1 (Section 8.3.2-8.3.5) ICP-OES
	Migration of Certain Elements Arsenic Antimony Barium Cadmium Chromium Lead Mercury Selenium	MS ISO 8124: Part 3: 2002 ICP-OES
Toys And Children Product	Phthalate	None
	phthalate Benzyl butyl phthalate Bis-(2-ethylhexyl) phthalate Di-n-octyl phthalate Di-iso-nonyl phthalate Di-iso-decyl phthalate	ISO 8124-6:2014 (Method A)
Cutlery And Feeding Utensils	Dibuty! phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-n-octyl phthalate Di-isononyl phthalate phthalate	EN 14372: 2004 clause 6.3.2
Child Use And Care Articles-	Phthalates	None
Toys And Children Products	Phthalates Dibuty! phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-isononyl phthalate Diisobutyl Phthalate Di-Hexyl Phthalate Di-n-pentyl Phthalate Dicyclohexyl Phthalate	CPSC-CH-C1001-09.4
	Di-n-octyl phthalate phthalate	In-house method EUBM.SOP.TM.IP.15 based on CPSC-CH-C1001-09.4
Paint And Certain Painted Products (surface Coatings)	Lead (to determine compliance with 16 CFR Part 1303)	CPSC-CH-E1003-09.1 (AOAC 974.02:2000, ASTM E1613: 2004)
Products	Lead	(USEPA 3051A, 3052 ASTM E1613: 2004)
Non-metal Children?s	Lead	CPSC-CH-E1002-08.3
Children?s Metal Products (including Children Metal Jewellery)	Antimony Arsenic Barium Cadmium	In-house method EUBM.SOP.TM.IP.32 based on CPSC-CH-E1001-8.3
	Chromium	None
	Mercury Selenium	None
	Aluminium	None
	Boron	None
	Cobalt	None
	Copper Manganese Nickle	None

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
	Strontium	None
	Tin	None
	Zinc	None
Children?s Metal Jewellery	Lead	CPSC-CH-E1001-08.3 (Microwave Method. ASTM E1613: 2004)
Rubber, Plastic Materials, Lacquer And Coating	Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Benzo(e)pyrene Benzo(j)fluoranthene	AfPS GS 2014:01
	Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Benzo(e)pyrene Benzo(j)fluoranthene	AfPS GS 2019:01
Articles Containing Nickel	Nickel release	BS EN 1811:1999
Fabric	Formaldehyde release (Sealed Jar Method)	AATCC 112-2008
Textile	Release formaldehyde (Vapour Absorption Method)	BS EN ISO 14184-2:1998
Building Board	Formaldehyde Emission (Desiccator Method)	JIS A 1460:2001
Wood Based Panels And Wood Product	Formaldehyde	BS EN 120: 1992 (Perforator Method)
Plastic (pvc And Pvc Copolymer)	Chlorine	BS EN ISO 1158: 1998 Method A
Plastic Material	Cadmium	BS EN1122: 2001
	Cadmium	Method B: Flame AAS/ ICP-AES
Sludges And Sludges Product	Determination of trace elements and Phosphorus ? Aqua Regia extraction Method (As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn and P)	BS EN 13346 C: 2000 (Method C: Closed microwave heating procedure)
Chromate Coating On Metallic Sample	Hexavalent Chromium	None
Colorless And Colored	Hexavalent Chromium	BS EN ISO 3613: 2001
Etc.	Hexavalent Chromium	None

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Metal, Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Ground Water And Tclp/ep Extracts	Hexavalent Chromium	USEPA 7196A
Metal, Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.	Sample pre-treatment for: Hexavalent Chromium	USEPA 3060A
Solid And Semisolid Waste (soil, Slag, Sludge)	TOC	In-house method EUBM.SOP.TM.SW.16 based on Walkley black
Waste Oil	Sediment	ASTM D473
	Viscosity	ASTM D445
Engine Coolant	Boiling Point	ASTM D 1120
Liquid Industrial	Specific Gravity	ASTM D 891 (Method B)
Waste Material	Gross Calorific and Ash Value	ASTM D 5468
Liquid Waste	Water content	USEPA 9000
	Total Hydrocarbon (THC)	APHA 5520.F
	Flash Point	ASTM D 3828 - 12a
Solid	Water content (moisture)	ASTM D 2216
Solid, Semisolid And Liquid Waste	Reactivity	USEPA 40 CFR Chapter 1-261.23 ? Characteristic of reactivity
	Waste pH measured in water	USEPA 9045 D
	Soil pH measured in water	USEPA 9045 D
	Flash Point	In-house method EUBM.SOP.TM.SW.10 based on ASTM D 3828 -12a
	Range of particles size (>2mm)	ASTM D 422
	Range of particles size (	In-house method EUBM.SOP.TM.SW.11 based on ASTM D 422
Solid Wastes (polymer Materials, Electrical/ Electronic Components And Toy Component)	Phthalate Esters Di-n-hexyl Phthalate Di-isobutyl Phthalate Bis (2-ethylhexyl) Phthalate Dibutyl Phthalate Benzyl Butyl Phthalate Diisonocyl Phthalate Diisodecyl Phthalate Di-n-octyl Phthalate	In-house method EUBM.SOP.TM.IP.24 based on USEPA 3540.C (GC-FID) In-house method EUBM.SOP.TM.IP.25 based on USEPA 3540.C (GC-ECD) In-house method EUBM.SOP.TM.IP.26 based on USEPA 3540.C (GC-MS)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Solid And Semisolid Waste, Sediments, Sludge And Soils - Siliceous And Organically Based Matrices (e.g.: Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.), Ground Water, Other Aqueous Samples, Ep Extracts Etc.	Aluminium Antimony Arsenic Aurum Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Palladium Phosphorus Platinum Potassium Selenium Silica Silver Sodium Strontium Tellurium Thallium Thorium Tin Titanium Vanadium Zinc	USEPA 6010C (ICP-OES)
	Lead	USEPA 7420 (AAS)
Solid Waste And Virgin And Used Oils, Fuels And Related Solid Material	Sample preparation method for solid waste (F, Cl, Br, land S)	USEPA 5050
Solid And Semisolid Waste	Oxygen combustion for Halogen and Sulfur content (F, Cl, Br, S)	BS EN 14582: 2007 (Calorimetric Bomb / Ion Chromatography)
Solids Such As Soils, Sludges, And Wastes	Sample pretreatment for nonvolatile and semivolatile organic compound	None
	Polybrominated Biphenyls (PBBs)	None
	Dibromobiphenyl Tribromobiphenyl Tetrabromobiphenyl Pentabromobiphenyl Hexabromobiphenyl Heptabromobiphenyl Octabromobiphenyl Nonabromobiphenyl Decabromobiphenyl	USEPA 3540C (Soxhlet Extraction)
	Polybrominated Diphenyl Ethers (PBDEs)	None
	Monobromodiphenyl Ether Dibromodiphenyl Ether Tribromodiphenyl Ether Tetrabromodiphenyl Ether Ether Hexabromodiphenyl Ether Heptabromodiphenyl Ether Octabromodiphenyl Ether Nonabromodiphenyl Ether Decabromodiphenyl Ether	None
	And others	None
(e.g.: Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.) (continued)	Aluminium Antimony Arsenic Aurum Barium	None
	Beryllium Boron	None
	Cadmium	None
	Calcium	None
	Chromium	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Cobalt	None
	Copper	None
	Iron	None
	Lead	None
	Magnesium Manganese Mercury Molybdenum Nickel	USEPA 3052
	Palladium	None
	Platinum	None
	Potassium	None
	Selenium	None
	Silver	None
	Sodium	None
	Strontium	None
	Tellurium	None
	Thallium	None
	Thorium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Zinc	None
Solid And Semisolid Waste-Siliceous And Organically Based Matrices	Sample pre-treatment for determination of:	None
Tclp Extraction	Arsenic	None
	Barium	None
	Cadmium	None
	Chromium Mercury Lead	USEPA 6010C (ICP-OES)
	Selenium	None
	Silver	None
Solid And Semi-solid Waste	Toxicity Characteristic Leaching Procedure (TCLP)	USEPA 1311
Solid And Semisolid Waste, Sediments, Sludge And Soils	Sample pre-treatment for determination of:	None
	Aluminium	None
	Arsenic	None
	Antimony Barium	None
	Beryllium Cadmium	None
	Calcium	None
	Chromium	None
	Cobalt	None
	Copper Iron	USEPA 3050B
	Lead	None
	Magnesium Manganese Molybdenum Nickel	None
	Potassium	None
	Selenium	None
	Silver	None
	Sodium	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Thallium	None
	Vanadium	None
	Zinc	None
Environmental Monitoring (continued) Pollutant In Air .	Nuisance Dust (Total) Particulate not otherwise regulated respirable Alkaline Dust (as NaOH)	NIOSH 0500 NIOSH 0600 NIOSH 7401, Issue 2
	Inorganic Acids Fluoride Chloride Phosphate Bromide Nitrate Sulphate	NIOSH 7903
	Formaldehyde	NIOSH 3500
Pollutant In Air	Aluminium	None
	Arsenic	None
	Antimony Barium	None
	Beryllium Bismuth	None
	Boron	None
	Cadmium	None
	Calcium	None
	Chromium	None
	Cobalt	None
	Copper Gold	None
	Iron	None
	Lead Magnesium Manganese Molybdenum Nickel	NIOSH 7303 (ICP-AES)
	Palladium	None
	Phosphorus Platinum	None
	Potassium	None
	Selenium	None
	Sodium	None
	Strontium	None
	Tellurium	None
	Thallium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Zinc	None
Environmental Monitoring (continued)	Particulate Matter (PM2.5 and PM10)	None
Environmental Monitoring Ambient Air (filter Paper)	Total Organic Matter	In-house method EUBM.SOP.TM.AIR.18 based on ASTM D2974
	Particulate Matter (PM2.5 and PM10)	In-house method EUBM.SOP.TM.AIR.19 based on USEPA Compendium Method IO 3.1
Drinking Water Ultrapure Water Renal Dialysis Water Tap Water Domestic Water	Aluminium Chromium Manganese Nickel Copper Zinc	None
	Arsenic	None
	Selenium Silver	APHA 3125. B (ICP-MS)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Cadmium	None
	Antimony Lead	None
	Barium	None
	Iron	None
	Boron	None
	Mercury Sodium	None
	Magnesium	None
Water	None	None
	None	None
	b) Chlorophyll-a	APHA 10150 B (Trichromatic Method)
	a) Aluminium	APHA 3500 AL B (Eriochrome Cyanine R)
	b) Chlorophyll-a	APHA 10150 B (Trichromatic Method)
	a) Aluminium	APHA 3500 AL B (Eriochrome Cyanine R)
	Escherichia Coli	Membrane Filtration Method
	Coliform Bacteria and	JKM M 2032
	COD	JKM W 0411 Spectrometry - MERCK system
	Total Plate Count Total Coliform Fecal Coliform E. coli Yeast and Mold	AOAC 990.12, 2012 APHA 9215 C, 22nd Edition AOAC 991.14, 2012 APHA 9221 B, 22nd Edition APHA 9221 E, 22nd Edition AOAC 991.14, 2012 APHA 9221 F, 22nd Edition AOAC 997.02, 2012 APHA 9610 C, 22nd Edition
	pH Test Turbidity Test Total Suspended Solids Test	PT Protocol UTP W01
	pH Test Turbidity Test Total Suspended Solids Test	PT Protocol UTP W01
Sewage Sludge Solid And Semi Solid	Barium Beryllium Boron	None
	Cadmium	None
	Calcium	None
	Cerium	None
	Chromium	None
	Cobalt	None
	Copper	None
	Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel	Sample pretreatment USEPA 3050B USEPA 3052 EPA 200.7 (ICP-OES)
	Phosphorus Potassium	None
	Selenium	None
	Silica	None
	Silver	None
	Sodium	None
	Strontium	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Thallium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Yttrium	None
	Zinc	None
Drinking Water Water And Waste Water Industrial Effluent	Aluminum Antimony Arsenic	None
Distilled Water Ro Water Rodi Water Ultrapure Water (grade 3 Water For Analytical Use)	Residue after evaporation Oxidisable matter Conductivity UV Absorbance at 254nm	EN ISO 3696:1995 EN ISO 3696:1995 EN ISO 3696:1995 EN ISO 3696:1995
Drinking Water Cooling Tower Water Boiler Water Ground Water Deionized Water Treated Leachates Solution	Flouride Chloride Nitrate Nitrite Sulphate Phosphate Bromide	APHA 4110. B (Ion Chromatography)
Water Drinking Water Cooling Tower Water Boiler Water Ground Water	Total Dissolved Solids Acidity Alkalinity (as CaCOs) Chloride Sulphate	APHA 2540. C APHA 2310. B APHA 2320. B APHA 4500-Cl-. B APHA E
	Total Hardness (as CaCOs)	APHA 2340. B APHA 2340. C
	Phosphorus Total Organic Carbon (0.0-20mg/L)	APHA 4500-P. C HACH 10129, Edition 9
	Anion	None
Water (continued) Marine Water .	Unionized Ammonia (NHs3)	In-house method EUBM.TWI.WA.58 based on FDEP code 00619
	Phosphate	HACH 8048 APHA 4500-P E
	Phosphorus	HACH 8048 APHA 4500-P
	Cyanide	HACH 8027
	Nitrate	HACH 8192 In-house Method EUBM.TWI.WA.63 based on APHA 4500 NOs. E
	Phenol	HACH 8047
	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc	APHA 3125. B
Water Marine Water	Color	APHA 2120. C APHA 2120. F
	Phenol	APHA 5530. B APHA 5530. C
	Cyanide	APHA 4500 CN-. C APHA 4500 CN-. E
	Total Suspended Solid Oil and Grease	APHA 2540. D APHA 5520. B
	Ammoniacal Nitrogen	HACH 8155
	Chromium Hexavalent	APHA 3500-Cr. B
	Nitrite	APHA B
Water (continued) River Water .	Chromium Trivalent	In-house method EUBM.TWI.WA.18 based on APHA 3120. B and APHA 3500-Cr. B (By calculation)
	Chromium Hexavalent	APHA 3500-Cr. B

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Phenol	APHA 5530. B APHA 5530. C
	Free Chlorine	APHA 4500-Cl. G
	Fluoride Chloride Nitrite Nitrate Sulphate Phosphate	APHA 4110. B
	Nitrite as N (NO2_N) Nitrate as N (NO3_N) Sulphur as S (SO4_S) Phosphate as P (PO4_P)	APHA 4110. B, calculation
	Arsenic Cadmium Chromium Lead Zinc Iron Aluminium Barium Copper Manganese Nickel Silver Selenium Boron Calcium Potassium Magnesium Sodium	APHA 3120. B
	Arsenic Cadmium Chromium Lead Zinc Iron Aluminium Barium Copper Manganese Mercury Nickel Silver Tin Selenium Boron Calcium Potassium Magnesium Sodium	EPA 200.7 (ICP-OES)
	Detergent (as MBAS)	APHA 5540. C
	DO	APHA 4500-0. G
	Sulfur	APHA 3030. E & APHA 3120. B EPA 200.7
	Phosphate	HACH 8048 APHA 4500-P
	Phosphorus	HACH 8048 APHA 4500-P
	Phenol	HACH 8047
	Cyanide	HACH 8027
	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc	APHA 3125. B
Water River Water	pH	APHA 4500-H*. B
	Color	APHA 2120. C APHA 2120. F
	BOD	APHA 5210. B APHA 4500-0. G
	Chemical Oxygen Demand (COD)	APHA 5220. C
	Total Suspended Solid Oil and Grease	APHA 2540. D APHA 5520. B
	Ammonia Ammoniacal Nitrogen	HACH 8155
	TDS	APHA 2540. C
	Electrical conductivity Turbidity	APHA 2510. B APHA 2130. B
	Silica	EPA 200.7
	Total Hardness	APHA 2340. B
	Cyanide	APHA 4500 CN-. C APHA 4500 CN-. E
	Temperature Salinity	APHA 2550. B (PART 1) APHA 2520. B
Mixed Liquor Waste Water Activated Sludge Industrial Waste	Suspended Solids in mixed liquor (MLSS) Fixed and Volatile Solids Ignited at 550 ?C	APHA 2540. D APHA 2540. E
	Volatile Suspended Solids in mixed liquor (MLVSS)	APHA 2540. D APHA 2540. E

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Water (continued)	None	None
Water (continued) Water & Waste Water . Industrial Effluents . Sewage	Fluoride	APHA C APHA B & D
	Formaldehyde	APHA 6252. B HACH 8110, Edition 8
	Free Chlorine	APHA 4500-Cl. B APHA 4500-Cl. G
	Total Chlorine	APHA 4500 -Cl. G
	Sulfide	APHA D APHA 4500-S*. F
	Phenol	APHA 5530. B APHA 5530. D APHA 5530. C Chloroform Extraction Method
	Nitrate	APHA 4500-NOs-. D Ion Selective Electrode Method
	Nitrite	APHA 4500-NOz-. B Colorimetric Method
	Cyanide	APHA 4500-CN-. C APHA 4500-CN-. E APHA F Ion Selective Electrode Method
	Conductivity Turbidity Silica	APHA 2510. B APHA 2130. B APHA D (Heteropoly Blue Method)
	Temperature Salinity	APHA 2550. B (Part 1) APHA 2520. B
	Sample preparation for Heavy Metal	APHA 3030. F APHA 3030. E
	Aluminium Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Potassium Selenium Silica Silver Sodium Strontium Thalium Vanadium Zinc	APHA 3120. B
Water Water & Waste Water Industrial Effluents . Sewage .	pH	APHA 4500-H+. B
	BOD at 20?C for 5 days	APHA 5210. B APHA 4500-0. G
	Chemical Oxygen Demand (COD)	APHA 5220. B APHA 5220. C
	Total Suspended Solids Oil and Grease	APHA 2540. D APHA 5520. B
	Zinc Chromium (Total) Nickel Iron Copper Manganese Lead Cadmium Tin	APHA
	Mercury Arsenic Chromium Hexavalent	APHA 3112. B APHA 3114. C APHA 3500-Cr. B
	Chromium Trivalent	APHA 3120. B- APHA 3500-Cr. B
	Boron	APHA 4500-B. C
	Colour	APHA 2120. C APHA 2120. F

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Environmental Monitoring Palm Oil Mill Effluents Rubber Effluents .	pH Chemical Oxygen Demand (COD) Suspended Solids Total Solids Ammoniacal Nitrogen	APHA 4500-H+. B DOE Standard Method (Reference & Alternative Method) DOE Standard Method (Reference Method) APHA 2540. B DOE Standard Method (Reference Method)
	Total Nitrogen	DOE Standard Method (Reference Method) DOE Standard Method (Alternative Method)
	Oil and Grease BOD at 30?C for 3 days	DOE Standard Method (Reference Method) DOE Standard Method (Reference & Alternative Method)

SCOPE OF TESTING : MICROBIOLOGY

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Emissions From Stationary Sources Stack Gas	Oxygen Carbon Dioxide Sulfur Dioxide (SO2)	USEPA 40 CFR 60, App. A, Method 3A USEPA 40 CFR 60, App. A, Method 6C
	Nitrogen Oxide (NOx)	USEPA 40 CFR 60, App. A, Method 7E
	Carbon Monoxide (CO)	USEPA 40 CFR 60, App. A, Method 10
	Total Organic compounds (NMVOC)	USEPA 40 CFR 60, App. A, Method 25A
Acoustics Noise	Measurement and assessment of Environmental Noise	ISO 1996-1 : 2003
Environmental Monitoring	None	None
	None	None
	None	None
Water & Waste Water . Industrial Effluents Sewage .	pH Value (In-situ) Temperature (In-situ)	APHA 4500-H+.B APHA 2550.B (Part 1)
Environmental Monitoring Emissions From Stationary . Sources Stack Gas .	Particulate Matter Sulfur Dioxide Nitrogen Oxide	USEPA 40 CFR 60, App. A, Method No. 5 USEPA 40 CFR 60, App. A, Method No. 6 USEPA 40 CFR 60, App. A, Method No. 7
	Sulfuric Acid Sulfur Dioxide	USEPA 40 CFR 60, App. A, Method No. 8
	Metals	USEPA 40 CFR 60, App. A, Method No. 29
	Hydrogen Halide Halogen	USEPA 40 CFR 60, App. A, Method No. 26A (Isokinetic Method)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Determination of concentration and mass flow of particulate matter in flue gas for stationary sources emissions Dark Smoke	MS 1596: 2003 (Gravimetry) BS 2742:2009 Ringelmann and miniature Smoke charts
Cosmetics Products	Arsenic Lead Cadmium Mercury	In-house method EUBM.SOP.TM.DG.03. based ACM THA 05
Traditional Medicine	Arsenic Lead Cadmium Mercury	In-house method EUBM.SOP.TM.FD.01. based AOAC 999.10
Calcium Hydroxide	Assay on Calcium Hydroxide Arsenic Carbonate Lead Magnesium and Alkali Salts Acid insoluble Substances	FCC 10
	Fluoride Cadmium Heavy metal	FCC 10, Appendix IIIB, Method III FCC 10, Appendix IIIB, Method III USP 37 Method
Calcium Carbonate	Assay of Calcium Carbonate Arsenic Barium Iron Lead Limit of fluoride Limit of Magnesium & Alkali Salts Mercury Loss on drying Acid insoluble Substances	USP 41
	Heavy metals	USP 37
	Chloride	Ph. Eur Monograph 0014
Liquid And Solid Sample	General techniques for obtaining infrared spectra for Qualitative Analysis	ASTM E 1252-1998 (FTIR)
	Identification of functional groups of organic and inorganic compound	In-house method EUBM.SOP.TM.FA.02 based on ASTM E1252-1998 (FTIR)
Polymer Material	Mass loss Mass gain Residue Decomposition temperature	MS ISO 7111 : 1998 TGA
Crystalline And Semi- Crystalline Plastic	Temperature, Enthalpy of Melting & Crystallization	MS ISO 11357-3: 2003 DSC
Polymer Material (plastic, Rubber, Polyolefin Resins And Other Plastics)	Oxidation Induction Time (OIT)	MS ISO 11357-6: 2004 DSC
Ceramic Ware, Glass-ceramic Ware And Glass Dinnerware In Contact With Food	Release Cadmium and Lead	ISO 6486-1 :1999
Materials And Articles In Contact With Foodstuffs (plastics)	Overall migration into aqueous food simulants by total immersion. Distilled water Acetic acid 3% Ethanol 10%	BS EN1186-3: 2002 (Method A)
	Overall migration into aqueous food simulants using a pouch Distilled water Acetic acid 3% Ethanol 10%	BS EN 1186- 7: 2002

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Overall migration into aqueous food simulants by article filling Distilled water Acetic acid 3% Ethanol 10%	BS EN 1186-9 : 2002
	Overall migration into olive oil by Total Immersion Overall migration into olive oil using Pouch Overall migration into olive oil by Article Filling	BS EN 1186-2:2002 BS EN 1186-6:2002 BS EN 1186-8:2002
Animal Feed	Loss on drying (moisture/ dry matter) at 95-100?C Loss on drying (moisture/dry matter) at 135?C Fat (Crude)	AOAC 934.01 AOAC 930.15 AOAC 920.39
	Ash	AOAC 923.03 AOAC 942.05
	Protein (Crude) Fibre (Crude)	AOAC 984.13 AOAC 978.10
Food, Flour	Sulfur Dioxide	In-house method EUBM.SOP.TM.FD.20 based on The Chemical Analysis of Food by David Pearson, Edition
	Water Activity	BS ISO 21807: 2004
	Total Aflatoxin	In-house method EUBM.SOP.TM.FD.18 based on ELISA (Direct competitive Enzyme- linked immunosorbent assay method)
	pH	AOAC 943.02
Food	Moisture: Air-oven Method Ash Protein Fat Energy Carbohydrate Calories Sodium Chloride	Laboratory procedure in Nutrient Analysis of Foods (Division of Human Nutrition Institute for Medical Research, Kuala Lumpur, 1996) Guide to Nutrition Labelling and Claims, MOH, Malaysia AOAC Chapter 6, Methods of analysis for nutrition labeling (1993) AOAC Chapter 6, Methods of analysis for nutrition labeling (1993) MS 1120:2004
	Metal Contaminants Zinc Cadmium Lead Copper Iron Arsenic Antimony Selenium Mercury Tin	In-house method EUBM.SOP.TM.FD.01 (ICP-OES,ICP-MS) based on AOAC 999.10
	Fatty Acid Profile	None
	Total Saturated Fat	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Butyric acid (C4:0) Caproic acid (C6:0) Caprylic acid (C8:0) Capric acid (C10:0) Lauric acid (C12:0) Tridecanoic acid (C13:0) Myristic acid (C14:0) Pentadecanoic acid (C15:0) Palmitic acid (C16:0) Margaric acid (C17:0) Stearic acid (C18:0) Arachidic acid (C20:0) Heneicosanoic acid (C21:0) Behenic acid (C22:0) Tricosanoic acid (C23:0) Lignoceric acid (C24:0)	AOAC 996.06
	Total Monounsaturated Fat	None
	(cis)	None
	Myristoleic acid (C14:1) cis-10 Pentadecanoic acid	None
	(C15:1) Palmitoleic acid (C16:1) cis-10-Heptadecenoic acid Oleic acid (C18:1n9c) cis-11 Eicosenoic acid (C20:1) Erucic acid (C22:1n9) Nervonic acid (C24:1n9)	None
	None	None
	Chemical:	Chemical:
	Chemical:	Chemical:
	Chemical:	Chemical:
	Enumeration of Bacillus cereus	Bacteriological Analytical Manual (BAM)- Chapter 4
	Coliform	Bacteriological Analytical Manual (BAM)- Chapter 4
	Total Plate Count	Bacteriological Analytical Manual (BAM)- Chapter 3
	nan	nan
Food (continued)	Total Polyunsaturated Fat (cis) Linoleic acid (C18:2n6c) y-Linoleniacid (C18:3n6) Linoleni acid (C18:3n3) cis-11,14-Eicosadienoic acid (C20:2) cis-8,11,14-Eicosatrienoic acid (C20:3n6) cis-11,14,17-Eicosatrienoic acid (C20:3n3) cis-5,8,11,14,17-Eicosapentaenoic acid (C20:5n3) Arachidonic acid (C20:4n6) cis-13,16-Docasadienoic acid (C22:2n6) cis-4,7,10,13,16,19-Docosahexaeno	AOAC 996.06
	Omega 3 Omega 6 EPA DHA	AOAC 996.06
	Cholesterol	AOAC 994.10

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Coffee And Coffee Products	Caffeine	BS ISO 20481:2008
(continued)	None	None
	Resistance to Permeation by Chemical2018	Resistance to Permeation by Chemical
	Resistance to Permeation by Chemical	2018
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer(Ref. No. UPB/T/004)	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer	(Ref. No. UPB/T/004)
	Resistance to Permeation by Chemical2018	Resistance to Permeation by Chemical
	Resistance to Permeation by Chemical	2018
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer(Ref. No. UPB/T/004)	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer
	Nitrogen, Carbon and Total Organic Carbon using the Elemental Analyzer	(Ref. No. UPB/T/004)
Food Stuffs	Benzoic Acid	In-house method
	Sorbic Acid	EUBM.SOP.TM.FD.12 based on
	Sorbic Acid	Journal Chromatography A, 1073, 2005. Page 393-397
	None	None
Tea And Instant Tea	Caffeine	BS ISO 10727:2002
Cured Meat	Sodium Nitrite	AOAC 973.31
Flour	Fat	AOAC 922.06
	Fat	(Acid Hydrolysis Method)
	GENMAS 1 Genetically Modified	PT Design G01
Cacao Products	Fat	AOAC Methods of Analysis for Nutrition Labelling, (1993) Chapter 18.22 (AOAC 963.15 ? Soxhlet)
Milk & Milk Products	Fat	AOAC Methods of Analysis for Nutrition Labelling, (1993) Chapter 18.9 (AOAC 989.05 ? Modified Majonnier)
Beverage, Chocolates Confectionary	Total Sugar Reducing sugar Sugar profile	None
	Fructose Glucose	AOAC 982.14
	Sucrose	None
	Maltose	None
	Lactose	None

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Honey	Total Sugar Reducing sugar Sugar profile Fructose	AOAC 977.20
	Glucose	None
	Sucrose	None
Sugars And Sugar Products	Total Sugar	AOAC 968.28
Solid Food	Sodium Potassium Calcium	In-house method EUBM.SOP.TM.FD.25 based on AOAC 984.27 AOAC Journal, vol. 92 No.pp 1484-1518 (35). 2009
	Total Dietary Fiber Insoluble Dietary Fiber Soluble Dietary Fiber	AOAC 991.43
Circuit Board	Anion	None
	Fluoride	None
	Chloride	IPC-Test Manual-650
	Sulphate Phosphate Bromide	Method Number: 2.3.28 Rev. B Ion chromatography
	Nitrite	None
	Nitrate	None
Surface Of Circuit Board And	Anion	None
Electrotechnical Products (polymers)	Phthalates Diisobutyl Phthalate Di-butyl phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-n-octyl phthalate Di-isononyl phthalate Di-iso-decyl phthalate	IEC 62321-8, Edition 1.0:2017
Electrotechnical Product (metal)	Cadmium Lead	IEC 62321-5, Edition 1.0 : 2013-06
	Presence of Hexavalent Chromium (IV)	IEC 62321-7-1, Edition 1.0 : 2015-09
Electrotechnical Product (polymers And Electronics)	Chromium Hexavalent	IEC 62321-7-2, Edition 1.0:2017
	Total Bromine	IEC 62321-3-2, Annex A, Edition 1.0 : 2013-06 (Oxygen bomb combustion)
	Cadmium Lead Chromium	IEC 62321-5, Edition 1.0 : 2013-06
Electrotechnical Product (polymers, Metals And Electronics)	Disassembly, disjointment and mechanical sample preparation	IEC 62321-2, Edition 1.0 : 2013-06
	Cadmium Lead Mercury Total Chromium Total Bromine	IEC 62321-3-1, Edition 1.0 : 2013-06 (X-ray Fluorescence Spectrometry)
	Mercury	IEC 62321-4, Edition 1.0 : 2013-06

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Polybrominated Biphenyls (PBB) Dibromobiphenyl Tribromobiphenyl Tetrabromobiphenyl Pentabromobiphenyl Hexabromobiphenyl Heptabromobiphenyl Octabromobiphenyl Nonabromobiphenyl Decabromobiphenyl Polybrominated Diphenyl Ethers (PBDEs) Monobromodiphenyl Ether Dibromodiphenyl Ether Tribromodiphenyl Ether Tetrabromodiphenyl Ether Ether Hexabromodiphenyl Ether Heptabromodiphenyl Ether Octabrom	IEC 62321-6, Edition 1.0 : 2015-06
Raw Natural Rubber	Hydroxylamine Neutral Sulphate (HNS)	In-house method based on EUBM.SOP.TM.IP.36
	Hydroxylamine Neutral Sulphate (HNS)	In-house method based on
	Hydroxylamine Neutral Sulphate (HNS)	EUBM.SOP.CTM.IP.26
Rubber	Myristic Acid (C-14) Pentadecylic Acid (C-15) Palmitic Acid (C-16) Margaric Acid (C-17) Stearic Acid (C-18) Oleic Acid (C-18:1) Linoleic Acid (C-18:2) Arachidic Acid (C-20)	In-house method EUBM.SOP.TM.IP.16 (GC-MS, GC- FID)
	None	None
	None	None
Paint And Similar Polymer Coating Material	Antimony Arsenic Barium Cadmium Chromium Lead	In-house method EUBM.SOP.TM.IP.27 based on AOAC 974.02 (ICP-OES)
	Mercury Selenium	None
Toys & Toys Material	Migration of Certain Elements Aluminium Antimony Arsenic Barium Boron Cadmium Chromium Cobalt Copper Lead Manganese Mercury Nickel Selenium Strontium Tin Zinc	EN 71: Part 3: 2019 ICP-OES
	Migration of Certain Elements Arsenic Antimony Barium Cadmium Chromium Lead Mercury Selenium	ASTM F963-11 Edition 1 (Section 8.3.2-8.3.5) ICP-OES

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
	Migration of Certain Elements Arsenic Antimony Barium Cadmium Chromium Lead Mercury Selenium	MS ISO 8124: Part 3: 2002 ICP-OES
Toys And Children Product	Phthalate	None
	phthalate Benzyl butyl phthalate Bis-(2-ethylhexyl) phthalate Di-n-octyl phthalate Di-iso-nonyl phthalate Di-iso-decyl phthalate	ISO 8124-6:2014 (Method A)
Cutlery And Feeding Utensils	Dibuty! phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-n-octyl phthalate Di-isononyl phthalate phthalate	EN 14372: 2004 clause 6.3.2
Child Use And Care Articles-	Phthalates	None
Toys And Children Products	Phthalates Dibuty! phthalate Butyl benzyl phthalate Bis (2-ethylhexyl) phthalate Di-isononyl phthalate Diisobutyl Phthalate Di-Hexyl Phthalate Di-n-pentyl Phthalate Dicyclohexyl Phthalate	CPSC-CH-C1001-09.4
	Di-n-octyl phthalate phthalate	In-house method EUBM.SOP.TM.IP.15 based on CPSC-CH-C1001-09.4
Paint And Certain Painted Products (surface Coatings)	Lead (to determine compliance with 16 CFR Part 1303)	CPSC-CH-E1003-09.1 (AOAC 974.02:2000, ASTM E1613: 2004)
Products	Lead	(USEPA 3051A, 3052 ASTM E1613: 2004)
Non-metal Children?s	Lead	CPSC-CH-E1002-08.3
Children?s Metal Products (including Children Metal Jewellery)	Antimony Arsenic Barium Cadmium	In-house method EUBM.SOP.TM.IP.32 based on CPSC-CH-E1001-8.3
	Chromium	None
	Mercury Selenium	None
	Aluminium	None
	Boron	None
	Cobalt	None
	Copper Manganese Nickle	None
	Strontium	None
	Tin	None
	Zinc	None
Children?s Metal Jewellery	Lead	CPSC-CH-E1001-08.3 (Microwave Method. ASTM E1613: 2004)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Rubber, Plastic Materials, Lacquer And Coating	Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Benzo(e)pyrene Benzo(j)fluoranthene	AfPS GS 2014:01
	Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Benzo(e)pyrene Benzo(j)fluoranthene	AfPS GS 2019:01
Articles Containing Nickel	Nickel release	BS EN 1811:1999
Fabric	Formaldehyde release (Sealed Jar Method)	AATCC 112-2008
Textile	Release formaldehyde (Vapour Absorption Method)	BS EN ISO 14184-2:1998
Building Board	Formaldehyde Emission (Desiccator Method)	JIS A 1460:2001
Wood Based Panels And Wood Product	Formaldehyde	BS EN 120: 1992 (Perforator Method)
Plastic (pvc And Pvc Copolymer)	Chlorine	BS EN ISO 1158: 1998 Method A
Plastic Material	Cadmium	BS EN1122: 2001
	Cadmium	Method B: Flame AAS/ ICP-AES
Sludges And Sludges Product	Determination of trace elements and Phosphorus ? Aqua Regia extraction Method (As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn and P)	BS EN 13346 C: 2000 (Method C: Closed microwave heating procedure)
Chromate Coating On Metallic Sample	Hexavalent Chromium	None
Colorless And Colored	Hexavalent Chromium	BS EN ISO 3613: 2001
Etc.	Hexavalent Chromium	None
Metal, Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Ground Water And Tclp/ep Extracts	Hexavalent Chromium	USEPA 7196A

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Metal, Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.	Sample pre-treatment for: Hexavalent Chromium	USEPA 3060A
Solid And Semisolid Waste (soil, Slag, Sludge)	TOC	In-house method EUBM.SOP.TM.SW.16 based on Walkley black
Waste Oil	Sediment	ASTM D473
	Viscosity	ASTM D445
Engine Coolant	Boiling Point	ASTM D 1120
Liquid Industrial	Specific Gravity	ASTM D 891 (Method B)
Waste Material	Gross Calorific and Ash Value	ASTM D 5468
Liquid Waste	Water content	USEPA 9000
	Total Hydrocarbon (THC)	APHA 5520.F
	Flash Point	ASTM D 3828 - 12a
Solid	Water content (moisture)	ASTM D 2216
Solid, Semisolid And Liquid Waste	Reactivity	USEPA 40 CFR Chapter 1-261.23 ? Characteristic of reactivity
	Waste pH measured in water	USEPA 9045 D
	Soil pH measured in water	USEPA 9045 D
	Flash Point	In-house method EUBM.SOP.TM.SW.10 based on ASTM D 3828 -12a
	Range of particles size (>2mm)	ASTM D 422
	Range of particles size (	In-house method EUBM.SOP.TM.SW.11 based on ASTM D 422
Solid Wastes (polymer Materials, Electrical/ Electronic Components And Toy Component)	Phthalate Esters Di-n-hexyl Phthalate Di-isobutyl Phthalate Bis (2-ethylhexyl) Phthalate Dibutyl Phthalate Benzyl Butyl Phthalate Diisonocyl Phthalate Diisodecyl Phthalate Di-n-octyl Phthalate	In-house method EUBM.SOP.TM.IP.24 based on USEPA 3540.C (GC-FID) In-house method EUBM.SOP.TM.IP.25 based on USEPA 3540.C (GC-ECD) In-house method EUBM.SOP.TM.IP.26 based on USEPA 3540.C (GC-MS)
Solid And Semisolid Waste, Sediments, Sludge And Soils - Siliceous And Organically Based Matrices (e.g.: Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.), Ground Water, Other Aqueous Samples, Ep Extracts Etc.	Aluminium Antimony Arsenic Aurum Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Palladium Phosphorus Platinum Potassium Selenium Silica Silver Sodium Strontium Tellurium Thallium Thorium Tin Titanium Vanadium Zinc	USEPA 6010C (ICP-OES)
	Lead	USEPA 7420 (AAS)

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Solid Waste And Virgin And Used Oils, Fuels And Related Solid Material	Sample preparation method for solid waste (F, Cl, Br, land S)	USEPA 5050
Solid And Semisolid Waste	Oxygen combustion for Halogen and Sulfur content (F, Cl, Br, S)	BS EN 14582: 2007 (Calorimetric Bomb / Ion Chromatography)
Solids Such As Soils, Sludges, And Wastes	Sample pretreatment for nonvolatile and semivolatile organic compound	None
	Polybrominated Biphenyls (PBBs)	None
	Dibromobiphenyl Tribromobiphenyl Tetrabromobiphenyl Pentabromobiphenyl Hexabromobiphenyl Heptabromobiphenyl Octabromobiphenyl Nonabromobiphenyl Decabromobiphenyl	USEPA 3540C (Soxhlet Extraction)
	Polybrominated Diphenyl Ethers (PBDEs)	None
	Monobromodiphenyl Ether Dibromodiphenyl Ether Tribromodiphenyl Ether Tetrabromodiphenyl Ether Ether Hexabromodiphenyl Ether Heptabromodiphenyl Ether Octabromodiphenyl Ether Nonabromodiphenyl Ether Decabromodiphenyl Ether	None
	And others	None
(e.g.: Plastic, Wood, Rubber, Paper, Pigment, Ink, Paint, Foam, Hardener, Glue, Etc.) (continued)	Aluminium Antimony Arsenic Aurum Barium	None
	Beryllium Boron	None
	Cadmium	None
	Calcium	None
	Chromium	None
	Cobalt	None
	Copper	None
	Iron	None
	Lead	None
	Magnesium Manganese Mercury Molybdenum Nickel	USEPA 3052
	Palladium	None
	Platinum	None
	Potassium	None
	Selenium	None
	Silver	None
	Sodium	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Strontium	None
	Tellurium	None
	Thallium	None
	Thorium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Zinc	None
Solid And Semisolid Waste-Siliceous And Organically Based Matrices	Sample pre-treatment for determination of:	None
Tclp Extraction	Arsenic	None
	Barium	None
	Cadmium	None
	Chromium Mercury Lead	USEPA 6010C (ICP-OES)
	Selenium	None
	Silver	None
Solid And Semi-solid Waste	Toxicity Characteristic Leaching Procedure (TCLP)	USEPA 1311
Solid And Semisolid Waste, Sediments, Sludge And Soils	Sample pre-treatment for determination of:	None
	Aluminium	None
	Arsenic	None
	Antimony Barium	None
	Beryllium Cadmium	None
	Calcium	None
	Chromium	None
	Cobalt	None
	Copper Iron	USEPA 3050B
	Lead	None
	Magnesium Manganese Molybdenum Nickel	None
	Potassium	None
	Selenium	None
	Silver	None
	Sodium	None
	Thallium	None
	Vanadium	None
	Zinc	None
Environmental Monitoring (continued) Pollutant In Air .	Nuisance Dust (Total) Particulate not otherwise regulated respirable Alkaline Dust (as NaOH)	NIOSH 0500 NIOSH 0600 NIOSH 7401, Issue 2
	Inorganic Acids Fluoride Chloride Phosphate Bromide Nitrate Sulphate	NIOSH 7903
	Formaldehyde	NIOSH 3500
Pollutant In Air	Aluminium	None
	Arsenic	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Antimony Barium	None
	Beryllium Bismuth	None
	Boron	None
	Cadmium	None
	Calcium	None
	Chromium	None
	Cobalt	None
	Copper Gold	None
	Iron	None
	Lead Magnesium Manganese Molybdenum Nickel	NIOSH 7303 (ICP-AES)
	Palladium	None
	Phosphorus Platinum	None
	Potassium	None
	Selenium	None
	Sodium	None
	Strontium	None
	Tellurium	None
	Thallium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Zinc	None
Environmental Monitoring (continued)	Particulate Matter (PM2.5 and PM10)	None
Environmental Monitoring Ambient Air (filter Paper)	Total Organic Matter	In-house method EUBM.SOP.TM.AIR.18 based on ASTM D2974
	Particulate Matter (PM2.5 and PM10)	In-house method EUBM.SOP.TM.AIR.19 based on USEPA Compendium Method IO 3.1
Drinking Water Ultrapure Water Renal Dialysis Water Tap Water Domestic Water	Aluminium Chromium Manganese Nickel Copper Zinc	None
	Arsenic	None
	Selenium Silver	APHA 3125. B (ICP-MS)
	Cadmium	None
	Antimony Lead	None
	Barium	None
	Iron	None
	Boron	None
	Mercury Sodium	None
	Magnesium	None
Water	None	None
	None	None
	b) Chlorophyll-a	APHA 10150 B (Trichromatic Method)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	a) Aluminium	APHA 3500 AL B (Eriochrome Cyanine R)
	b) Chlorophyll-a	APHA 10150 B (Trichromatic Method)
	a) Aluminium	APHA 3500 AL B (Eriochrome Cyanine R)
	Escherichia Coli	Membrane Filtration Method
	Coliform Bacteria and	JKM M 2032
	COD	JKM W 0411 Spectrometry - MERCK system
	Total Plate Count Total Coliform Fecal Coliform E. coli Yeast and Mold	AOAC 990.12, 2012 APHA 9215 C, 22nd Edition AOAC 991.14, 2012 APHA 9221 B, 22nd Edition APHA 9221 E, 22nd Edition AOAC 991.14, 2012 APHA 9221 F, 22nd Edition AOAC 997.02, 2012 APHA 9610 C, 22nd Edition
	pH Test Turbidity Test Total Suspended Solids Test	PT Protocol UTP W01
	pH Test Turbidity Test Total Suspended Solids Test	PT Protocol UTP W01
Sewage Sludge Solid And Semi Solid	Barium Beryllium Boron	None
	Cadmium	None
	Calcium	None
	Cerium	None
	Chromium	None
	Cobalt	None
	Copper	None
	Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel	Sample pretreatment USEPA 3050B USEPA 3052 EPA 200.7 (ICP-OES)
	Phosphorus Potassium	None
	Selenium	None
	Silica	None
	Silver	None
	Sodium	None
	Strontium	None
	Thallium	None
	Tin	None
	Titanium	None
	Vanadium	None
	Yttrium	None
	Zinc	None
Drinking Water Water And Waste Water Industrial Effluent	Aluminum Antimony Arsenic	None
Distilled Water Ro Water Rodi Water Ultrapure Water (grade 3 Water For Analytical Use)	Residue after evaporation Oxidisable matter Conductivity UV Absorbance at 254nm	EN ISO 3696:1995 EN ISO 3696:1995 EN ISO 3696:1995 EN ISO 3696:1995

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Drinking Water Cooling Tower Water Boiler Water Ground Water Deionized Water Treated Leachates Solution	Flouride Chloride Nitrate Nitrite Sulphate Phosphate Bromide	APHA 4110. B (Ion Chromatography)
Water Drinking Water Cooling Tower Water Boiler Water Ground Water	Total Dissolved Solids Acidity Alkalinity (as CaCOs) Chloride Sulphate	APHA 2540. C APHA 2310. B APHA 2320. B APHA 4500-Cl-. B APHA E
	Total Hardness (as CaCOs)	APHA 2340. B APHA 2340. C
	Phosphorus Total Organic Carbon (0.0-20mg/L)	APHA 4500-P. C HACH 10129, Edition 9
	Anion	None
Water (continued) Marine Water .	Unionized Ammonia (NHs3)	In-house method EUBM.TWI.WA.58 based on FDEP code 00619
	Phosphate	HACH 8048 APHA 4500-P E
	Phosphorus	HACH 8048 APHA 4500-P
	Cyanide	HACH 8027
	Nitrate	HACH 8192 In-house Method EUBM.TWI.WA.63 based on APHA 4500 NOs. E
	Phenol	HACH 8047
	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc	APHA 3125. B
Water Marine Water	Color	APHA 2120. C APHA 2120. F
	Phenol	APHA 5530. B APHA 5530. C
	Cyanide	APHA 4500 CN-. C APHA 4500 CN-. E
	Total Suspended Solid Oil and Grease	APHA 2540. D APHA 5520. B
	Ammoniacal Nitrogen	HACH 8155
	Chromium Hexavalent	APHA 3500-Cr. B
	Nitrite	APHA B
Water (continued) River Water .	Chromium Trivalent	In-house method EUBM.TWI.WA.18 based on APHA 3120. B and APHA 3500-Cr. B (By calculation)
	Chromium Hexavalent	APHA 3500-Cr. B
	Phenol	APHA 5530. B APHA 5530. C
	Free Chlorine	APHA 4500-Cl. G
	Fluoride Chloride Nitrite Nitrate Sulphate Phosphate	APHA 4110. B
	Nitrite as N (NO2_N) Nitrate as N (NO3_N) Sulphur as S (SO4_S) Phosphate as P (PO4_P)	APHA 4110. B, calculation

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Arsenic Cadmium Chromium Lead Zinc Iron Aluminium Barium Copper Manganese Nickel Silver Selenium Boron Calcium Potassium Magnesium Sodium	APHA 3120. B
	Arsenic Cadmium Chromium Lead Zinc Iron Aluminium Barium Copper Manganese Mercury Nickel Silver Tin Selenium Boron Calcium Potassium Magnesium Sodium	EPA 200.7 (ICP-OES)
	Detergent (as MBAS)	APHA 5540. C
	DO	APHA 4500-0. G
	Sulfur	APHA 3030. E & APHA 3120. B EPA 200.7
	Phosphate	HACH 8048 APHA 4500-P
	Phosphorus	HACH 8048 APHA 4500-P
	Phenol	HACH 8047
	Cyanide	HACH 8027
	Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc	APHA 3125. B
Water River Water	pH	APHA 4500-H*. B
	Color	APHA 2120. C APHA 2120. F
	BOD	APHA 5210. B APHA 4500-0. G
	Chemical Oxygen Demand (COD)	APHA 5220. C
	Total Suspended Solid Oil and Grease	APHA 2540. D APHA 5520. B
	Ammonia Ammoniacal Nitrogen	HACH 8155
	TDS	APHA 2540. C
	Electrical conductivity Turbidity	APHA 2510. B APHA 2130. B
	Silica	EPA 200.7
	Total Hardness	APHA 2340. B
	Cyanide	APHA 4500 CN-. C APHA 4500 CN-. E
	Temperature Salinity	APHA 2550. B (PART 1) APHA 2520. B
Mixed Liquor Waste Water Activated Sludge Industrial Waste	Suspended Solids in mixed liquor (MLSS) Fixed and Volatile Solids Ignited at 550 ?C	APHA 2540. D APHA 2540. E
	Volatile Suspended Solids in mixed liquor (MLVSS)	APHA 2540. D APHA 2540. E
Water (continued)	None	None
Water (continued) Water & Waste Water . Industrial Effluents . Sewage	Fluoride	APHA C APHA B & D
	Formaldehyde	APHA 6252. B HACH 8110, Edition 8
	Free Chlorine	APHA 4500-Cl. B APHA 4500-Cl. G
	Total Chlorine	APHA 4500 -Cl. G

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Sulfide	APHA D APHA 4500-S*. F
	Phenol	APHA 5530. B APHA 5530. D APHA 5530. C Chloroform Extraction Method
	Nitrate	APHA 4500-NOs-. D Ion Selective Electrode Method
	Nitrite	APHA 4500-NOz-. B Colorimetric Method
	Cyanide	APHA 4500-CN-. C APHA 4500-CN-. E APHA F Ion Selective Electrode Method
	Conductivity Turbidity Silica	APHA 2510. B APHA 2130. B APHA D (Heteropoly Blue Method)
	Temperature Salinity	APHA 2550. B (Part 1) APHA 2520. B
	Sample preparation for Heavy Metal	APHA 3030. F APHA 3030. E
	Aluminium Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Potassium Selenium Silica Silver Sodium Strontium Thalium Vanadium Zinc	APHA 3120. B
Water Water & Waste Water Industrial Effluents . Sewage .	pH	APHA 4500-H+. B
	BOD at 20?C for 5 days	APHA 5210. B APHA 4500-0. G
	Chemical Oxygen Demand (COD)	APHA 5220. B APHA 5220. C
	Total Suspended Solids Oil and Grease	APHA 2540. D APHA 5520. B
	Zinc Chromium (Total) Nickel Iron Copper Manganese Lead Cadmium Tin	APHA
	Mercury Arsenic Chromium Hexavalent	APHA 3112. B APHA 3114. C APHA 3500-Cr. B
	Chromium Trivalent	APHA 3120. B- APHA 3500-Cr. B
	Boron	APHA 4500-B. C
	Colour	APHA 2120. C APHA 2120. F
Environmental Monitoring Palm Oil Mill Effluents Rubber Effluents .	pH Chemical Oxygen Demand (COD) Suspended Solids Total Solids Ammoniacal Nitrogen	APHA 4500-H+. B DOE Standard Method (Reference & Alternative Method) DOE Standard Method (Reference Method) APHA 2540. B DOE Standard Method (Reference Method)
	Total Nitrogen	DOE Standard Method (Reference Method) DOE Standard Method (Alternative Method)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Oil and Grease BOD at 30?C for 3 days	DOE Standard Method (Reference Method) DOE Standard Method (Reference & Alternative Method)

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Air	Sedimentation Plate Test Total Bacteria Count Total Yeast & Mold Count/ Fungi Count	In-house method EUBM.SOP.TM.MB.EM.02 based on Compendium of Methods for the Microbiological Examination of Foods, 4' Edition (2001)
	Bioaerosol Test: Total Bacteria Count Total Yeast & Mold Count/ Fungi Count	In-house method EUBM.SOP.TM.MB.EM.03 based on NIOSH method 0800 4 Edition.
Swab Test On: Surface Equipment . Personnel Hand .	Swab Tests: Total Bacteria Count Total Yeast and Mould Count Coliform Count Escherichia coli Count	In-house method EUBM.SOP.TM.MB.EM.01 based on Compendium of Methods for the Microbiological Examination of Foods, 4' Edition (2001)
	Detection of Salmonella spp.	In-house method EUBM.SOP.TM.MB.EM.07 based on FDA-BAM Chapter 5
	Enterobacteriaceae Count	Compendium of Methods for the Microbiological Examination of Foods, Ed, 2001
	Staphylococcus aureus Count	Compendium of Methods for the Microbiological Examination of Foods, Ed, 2001
	Listeria spp and Listeria monocytogenes Detection	AOAC 997.03 :2012
Pharmaceutical Product Cosmetics Toiletries Product Traditional Medicine	Total Viable Aerobic Count (Bacteria & Fungi) Total Aerobic Microbial Count Total Yeast and Mould Count Bile-tolerant Gram ?ve bacteria (Enterobacteriaceae) Escherichia coli Salmonella Pseudomonas aeruginosa Staphylococcus aureus Candida albicans	BP 2013 Appendix XVIB
	Burkholderia cepacia Detection	In-house method EUBM.SOP.TM.MB.DG.08 based on Journal of AOAC

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Uht Milk	Standard Plate Count at 55?C for 48 hours	In-house method EUBM.SOP.TM.MB.FD.09 based on Standard Methods for Examination of Dairy Products, Edition (2004)
Dairy Foods, Red Meats, Pork, Poultry And Poultry Products, Seafood, Fruits, Vegetables, Nutmeats, Pasta, Chocolate, Eggs And Bone Meals	Detection of Listeria spp. Detection of Listeria monocytogenes	AOAC 997.03 AOAC PTM 060801
All Type Of Food And Food Related Samples	Aerobic Plate Count Yeast & Mould Count Coliform Fecal Coliform Escherichia coli Staphylococcus aureus Salmonella	FDA-BAM Chapter 3 AOAC Method 990.12 (3M Petrifilm) FDA-BAM Chapter 18 FDA-BAM Chapter 4 FDA-BAM Chapter 4 FDA-BAM Chapter 4 FDA-BAM Chapter 12 AOAC 2003.07 (3M Petrifilm) FDA-BAM Chapter 5 AOAC 2014.01 (3M Petrifilm)
	Vibrio cholerae Vibrio parahaemolyticus	FDA-BAM Chapter 9
	Rapid Yeast and Mould Count Coliform Count Escherichia coli Count Clostridium perfringens Count	AOAC 2014.05 (3M Petrifilm) AOAC 991.14 (3M FDA-BAM Chapter 16
	Bacillus cereus Detection of Salmonella spp.	BS EN ISO 7932:2004 In-house method EUBM.SOP.TM.MB.FD.16 based on FDA-BAM Chapter 5
Drinking Water Mineral Water Potable Water	Fecal Streptococci Clostridium perfringens Sulphite reducing anaerobes	APHA 9230.C HPA NSM WS5 Issue 3 ISO 6461-2:1986
Marine Water Reacreational Water	Enterococci Count	APHA 9230C
Water Samples (e.g.: Mineral & Drinking Water, Recreational Water, Cooling Tower Water, Potable Water And Effluent)	Heterotrophic Plate Count/ Standard Plate Count	APHA 9215 APHA 9215 Cc APHA 9215
	Total Coliform	APHA 9221 APHA 9222
	Fecal Coliform	APHA 9221 APHA 9222
	Salmonella Pseudomonas aeruginosa Legionella	APHA 9260 APHA 9213 APHA 9260
	Legionella pneumophila SG1 Legionella pneumophila SG2-14 Legionella species	AS/NZS 3896: 2008
	Escherichia coli	APHA 9221. F APHA 9222.G

SCOPE OF TESTING : MICROBIOLOGY

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Air	Sedimentation Plate Test Total Bacteria Count Total Yeast & Mold Count/ Fungi Count	In-house method EUBM.SOP.TM.MB.EM.02 based on Compendium of Methods for the Microbiological Examination of Foods, 4' Edition (2001)
	Bioaerosol Test: Total Bacteria Count Total Yeast & Mold Count/ Fungi Count	In-house method EUBM.SOP.TM.MB.EM.03 based on NIOSH method 0800 4 Edition.
Swab Test On: Surface Equipment . Personnel Hand .	Swab Tests: Total Bacteria Count Total Yeast and Mould Count Coliform Count Escherichia coli Count	In-house method EUBM.SOP.TM.MB.EM.01 based on Compendium of Methods for the Microbiological Examination of Foods, 4' Edition (2001)
	Detection of Salmonella spp.	In-house method EUBM.SOP.TM.MB.EM.07 based on FDA-BAM Chapter 5
	Enterobacteriaceae Count	Compendium of Methods for the Microbiological Examination of Foods, Ed, 2001
	Staphylococcus aureus Count	Compendium of Methods for the Microbiological Examination of Foods, Ed, 2001
	Listeria spp and Listeria monocytogenes Detection	AOAC 997.03 :2012
Pharmaceutical Product Cosmetics Toiletries Product Traditional Medicine	Total Viable Aerobic Count (Bacteria & Fungi) Total Aerobic Microbial Count Total Yeast and Mould Count Bile-tolerant Gram ?ve bacteria (Enterobacteriaceae) Escherichia coli Salmonella Pseudomonas aeruginosa Staphylococcus aureus Candida albicans	BP 2013 Appendix XVIB
	Burkholderia cepacia Detection	In-house method EUBM.SOP.TM.MB.DG.08 based on Journal of AOAC
Uht Milk	Standard Plate Count at 55?C for 48 hours	In-house method EUBM.SOP.TM.MB.FD.09 based on Standard Methods for Examination of Dairy Products, Edition (2004)
Dairy Foods, Red Meats, Pork, Poultry And Poultry Products, Seafood, Fruits, Vegetables, Nutmeats, Pasta, Chocolate, Eggs And Bone Meals	Detection of Listeria spp. Detection of Listeria monocytogenes	AOAC 997.03 AOAC PTM 060801

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
All Type Of Food And Food Related Samples	Aerobic Plate Count Yeast & Mould Count Coliform Fecal Coliform Escherichia coli Staphylococcus aureus Salmonella	FDA-BAM Chapter 3 AOAC Method 990.12 (3M Petrifilm) FDA-BAM Chapter 18 FDA-BAM Chapter 4 FDA-BAM Chapter 4 FDA-BAM Chapter 4 FDA-BAM Chapter 12 AOAC 2003.07 (3M Petrifilm) FDA-BAM Chapter 5 AOAC 2014.01 (3M Petrifilm)
	Vibrio cholerae Vibrio parahaemolyticus	FDA-BAM Chapter 9
	Rapid Yeast and Mould Count Coliform Count Escherichia coli Count Clostridium perfringens Count	AOAC 2014.05 (3M Petrifilm) AOAC 991.14 (3M FDA-BAM Chapter 16
	Bacillus cereus Detection of Salmonella spp.	BS EN ISO 7932:2004 In-house method EUBM.SOP.TM.MB.FD.16 based on FDA-BAM Chapter 5
Drinking Water Mineral Water Potable Water	Fecal Streptococci Clostridium perfringens Sulphite reducing anaerobes	APHA 9230.C HPA NSM WS5 Issue 3 ISO 6461-2:1986
Marine Water Reacreational Water	Enterococci Count	APHA 9230C
Water Samples (e.g.: Mineral & Drinking Water, Recreational Water, Cooling Tower Water, Potable Water And Effluent)	Heterotrophic Plate Count/ Standard Plate Count	APHA 9215 APHA 9215 Cc APHA 9215
	Total Coliform	APHA 9221 APHA 9222
	Fecal Coliform	APHA 9221 APHA 9222
	Salmonella Pseudomonas aeruginosa Legionella	APHA 9260 APHA 9213 APHA 9260
	Legionella pneumophila SG1 Legionella pneumophila SG2-14 Legionella species	AS/NZS 3896: 2008
	Escherichia coli	APHA 9221. F APHA 9222.G

SITE LOCATION (HQ)	1. Eurofins NM Laboratory Sdn. Bhd., Penang, 78 & 80, Lorong Perda Selatan 1 Bandar Perda, 14000 Bukit Mertajam Pulau Pinang., MALAYSIA
FIELD(S) OF TESTING :	CHEMICAL,MECHANICAL

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Ambient Air	Total Suspended Particulate Matter (TSP)	AS/NZS 3580.9.3:2003
	Sulfur Dioxide	ISC 704C ISC 720A
	Nitrogen Dioxide	ISC 406 (Bubble Method)
	Total Suspended Particulate Matter (TSP)	AS/NZS 3580.9.3:2003
	Sulfur Dioxide	ISC 704C ISC 720A
	Nitrogen Dioxide	ISC 406 (Bubble Method)
	Total Suspended Particulate (TSP) Particulate Matter 10 um (PM10) Particulate Matter 2.5 um (PM2.5)	In-house method EUBM.SOP.TM.FW.AIR.01 based on Environmental DuskTrak Aerosol Monitor Model 8540, 8543, Operation and Service Manual
Clear Effluent	Free Chlorine (In-situ)	In-house method EUBM.SOP.TM.FW.WA.04 based on APHA
Environmental Monitoring (continued) Pollutant In Air	Thallium Tin Titanium Vanadium Zinc	NIOSH 7303
	Nuisance Dust (Total) Particulate not otherwise regulated respirable	NIOSH 0500 NIOSH 0600
Environmental Monitoring Pollutant In Air	Aluminium Arsenic Antimony Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Gold Iron Lead Magnesium Manganese Molybdenum Nickel Palladium Phosphorus Platinum Potassium Selenium Sodium Strontium Tellurium	NIOSH 7303
	Alkaline Dust (as NaOH)	NIOSH 7401, Issue 2
	Inorganic Acids Fluoride Chloride Phosphate Bromide Nitrate Sulphate	NIOSH 7903
	Formaldehyde	NIOSH 3500

Environmental Monitoring Emissions From Stationary Sources Stack Gas .	Particulate Matter Sulfur Dioxide Nitrogen Oxide	USEPA 40 CFR 60, App. A, Method No. 5 USEPA 40 CFR 60, App. A, Method No. 6 USEPA 40 CFR 60, App. A, Method No. 7
	Sulfuric Acid Sulfur Dioxide	USEPA 40 CFR 60, App. A, Method No. 8
	Metals	USEPA 40 CFR 60, App. A, Method No. 29
	Hydrogen Halide Halogen	USEPA 40 CFR 60, App. A, Method No. 26A (Isokinetic method)
	Determination of concentration and mass flow of particulate matter in flue gas for stationary sources emissions	MS 1596: 2003 (Gravimetry)
Water & Waste Water . Industrial Effluents . Sewage	Ammoniacal Nitrogen Ammoniacal Nitrogen (0.01 - 0.5mg/L)	APHA 4500-NHs3. B & C In-house method EUBM.TWI.WA.46 based on HACH 8155, Edition 10
	Kjeldahl Nitrogen	APHA 4500.Norg. C
	Total Inorganic Nitrogen	In-house method EUBM.SOP.TM.WA.15 (Ammoniacal Nitrogen+ NOz + based on APHA 4500-NHs. B & C and APHA 4110. B
	Total Nitrogen	In-house method EUBM.SOP.TM.WA.17 (Total Kjeldahl Nitrogen+NOzN+NOs'N) based on APHA 4500-Norg. C and APHA 4110. B
	Total Alkalinity (M-Alkalinity) P-Alkalinity	APHA 2320. B

SCOPE OF TESTING : MECHANICAL

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