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NO: SAMM 191

LABORATORY LOCATION/ CENTRAL OFFICE:	Allied Chemists Laboratory Sdn Bhd No. 1 , Jalan Gemilang 7, Taman Perindustrian Cemerlang, 81800, Johor Bahru, Johor , 81800, JOHOR MALAYSIA
ACCREDITED SINCE :	02 OCTOBER 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:	Allied Chemists Laboratory Sdn Bhd No. 1 , Jalan Gemilang 7, Taman Perindustrian Cemerlang, 81800, Johor Bahru, Johor , 81800, Johor
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**
(animal Feeds & Feedstuff	Total Nitrogen	None
(margarine/butter)	Fat	based on Pearson-™s Composition
	Fat	and Analysis of Food, Edition
	Salt Content	In-house method LWI-MOF 021
	Salt Content	based on Pearson-™s Composition
	Salt Content	and Analysis of Food, Edition
(palm Oils & Its Related	Acidity /Acid Value /F.F.A.	MS 817 (1989) Clause 8
	Iodine Value	MPOB p3.2 (2004)
(potable Water	Alkalinity	None
(potable Water Industrial Water	(BODs at 20° C)	None

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
Ambient Air	Total suspended particulate in ambient air	ISC Method 501
	Nitrogen dioxide in ambient air	ISC Method 406
	Sulfur dioxide in ambient air	ISC Method 704C & APHA
	Sulfur dioxide in ambient air	4500-SO4 E
	Total Suspend Particulates	AS/NZS 3580 9.3: 2015
	PM10	AS/NZS 3580 9.6: 2015
	PM2.5	AS/NZS 3580 9.14: 2013
	Total Suspend Particulates	AS/NZS 3580.9.3:2015
	PM10	AS/NZS 3580 9.6:2015
	PM2.5	AS/NZS 3580.9.14:2013
	Sulfur Dioxide, SOz	Method 704A of Air Sampling and Analysis, 3rd Edition
	Nitrogen Dioxide,	Method 406 of Air Sampling and Analysis, 3rd Edition (Bubbler Method)
	co	In House Method 6019 based on Passive Dosi-Tube
	Oxidizing Substances In the Atmosphere (as Ozone, Os)	Method 411 of Air Sampling and Analysis, 3rd Edition
	CO, H2S	In House Method 6020 based on Instrumentation- Direct Reading Aeroqual 500
And Condiments	Cholesterol	None
Charcoal Tube	Benzene	NMAM 1501 4" Edition, 2003
	Ethyl Benzene	NMAM 1501 4" Edition, 2003
	Hexane	NMAM 1500 Edition, 2003
	Toluene	NMAM 1501 4' Edition, 2003
	Xylene	NMAM 1501 4" Edition, 2003
Chimney Emission	Determination of dark smoke emissions from chimney using Ringelmann smoke chart	US Bureau of Mines, 1967
	Determination of sampling and velocity traverse	USEPA Method 1
	points for chimney	None
	Determination of chimney gas velocity &	USEPA Method 2
	volumetric flow rate (Type S pitot)	None
	Determination of chimney gas dry molecular	USEPA Method 3
	weight	None
	Determination of moisture content in chimney	USEPA Method 4
	gases	None
	Determination of particulate matter emissions	USEPA Method 5
	from chimney -” Isokinetic Method	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Determination of sulfuric acid mist (including sulfur trioxide) emissions from chimney -”	USEPA Method 8
	Method	None
	Sampling of polychlorinated dibenzo-p-dioxins	USEPA Method 23
	and polychlorinated dibenzofurans emissions	None
	from chimney -” Isokinetic Method	None
	Sampling of hydrochloric acid, hydrofluoric acid	USEPA Method 26A
	and chlorine emissions from chimney emissions	None
	-” Isokinetic Method.	None
	Determination of arsenic, cadmium, chromium,	USEPA Method 29
	copper, lead, mercury and zinc emissions from	None
	chimney -” Isokinetic Method	None
	Measurement of oxygen, carbon dioxide, carbon	In-house method WI-EQ-FGA-
	monoxide, nitrogen monoxide, nitrogen oxides	001 based on manufacturer
	and sulfur dioxide emissions from chimney.	manual -” MRU GmbH
Confectionery	Cholesterol	Based on Elsevier -” Journal of
Derived Products	Cholesterol	None
Environmental Noise	Environmental noise levels measurement	ISO 1996/1
Fatty/ Oily Food	Aerobic Plate Count	FDA-BAM, Ed, Chap 3
Flour And	Cholesterol	In-House LWI-MFF 029
Food & Feeds	Total Nitrogen	MS 1120 (1988)
Foods	Metals	In-house method LWI-MFF 021
	Sodium as Na Iron as Fe Calcium as Ca	based on AOAC 968.08 (Sample Preparation) & USEPA 6010 B
	Copper as Cu	None
	Manganese as Mn	None
	Zinc as Zn	None
	Cadmium as Cd	None
	Antimony as Sb	None
	Tin as Sn	None
	Lead as Pb	None
	Fat in Dried Milk	AOAC 932.06
Industrial Water	Chemical Oxygen Demand	APHA 5220 B
Meat And Meat	Fecal Coliform	FDA-BAM, Ed, Chap 4
Non-alcoholic Beverages Nut, Fruit And	Cholesterol	Food Composition and Analysis 21 (2008) 306-314
Oils And Fats	Acidity /Acid Value /F.F.A.	AOCS Ca 5a-40 (1993)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Iodine Value	AOCS Cd Id-92 (1993)
	Fat	In-house method LWI-MOF 022
Pharmaceutical	Metals	In-house Method LWI-MFF
	Arsenic	In-house Method LWI-MPH
	Total Aerobic Microbial Count	XVI B
Product (tablet/liquid)	Mercury Cadmium Lead	003 based on USP 233 by closed vessel digestion and ICP-MS
Products Edible Oils)	Acidity /Acid Value /F.F.A.	MPOB p2.5 (2004)
	Apparent Density	MS 817 (1989) Clause 31
	Apparent Density	MPOB p4.5 (2004)
	Cloud Point	AOCS Cc 6-25 (1993)
	Cloud Point	MS 817 (1989) Clause 28
	Cloud Point	MPOB p4.3 (2004)
	Cold Test	AOCS Cc 11-53 (1993)
	Colour (Lovibond)	AOCS Cc 13e-92 (1993)
	Colour (Lovibond)	MS 817 (1989) Clause 26
	Colour (Lovibond)	MPOB p4.1 (2004)
	DOBI (Deterioration of	MS 817 (1989) Clause 18
	Bleachability Index)	MPOB p2.9 (2004)
	Insoluble Impurities	AOCS Ca 3a-46 (1993)
	Insoluble Impurities	MS 817 (1989) Clause 5
	Insoluble Impurities	MPOB p2.2 (2004)
	Iodine Value	None
	Moisture & Volatile Matter	AOCS Ca 2b-38 (1993)
	(Hot Plate)	None
	Peroxide Value	AOCS Cd 8-53 (1993)
	Peroxide Value	AOCS Cd 8b-90 (2011)
	Peroxide Value	MS 817 (1989) Clause 6
	Peroxide Value	MPOB p2.3 (2004)
	Phosphorus	MS 817 (1989) Clause 14
	Phosphorus	MPOB p2.8 Part 1(b) (2004)
	Saponification Value	MS 817 (1989) Clause 24
	Saponification Value	MPOB p3.1 (2004)
	Slip Melting Point	AOCS Cc 3-25 (1993)
	Slip Melting Point	MS 817 (1989) Clause 27
	Slip Melting Point	MPOB p4.2 (2004)
	Soap Content	AOCS Cc 17-79 (1993)
	Soap Content	MS 817 (1989) Clause 20
	Soap Content	MPOB p2.13 (2004)
	Specific Gravity	AOCS Cc 10a-25 (1993)
	Titre	AOCS Cc 12-59 (1993)
	Titre	MS 817 (1989) Clause 32
	Titre	MPOB p4.6 (2004)
	Unsaponifiable Matter	AOCS Ca 6a-40 (1993)
	Unsaponifiable Matter	MS 817 (1989) Clause 10
	Unsaponifiable Matter	MPOB p2.7 Part 2 (2004)
	Volatile Matter	MS 817 (1989) Clause 4
	Volatile Matter	MPOB p2.1 Part 1 (2004)

Material / Product Tested	**Type Of Test / Properties Measured / Range Of Measurement**	**Standard Test Methods / Equipment / Techniques**
	Mineral Oil (Qualitative)	AOAC 945.102 (1995)
	Mineral Acidity	BS 684:2.10 (1988)
Sauces)	Nitrogen / Crude Protein	MS ISO 5983 (1996)
	Water-Soluble Chloride	MS ISO 6495 (1996)
	Moisture in animal feed	AOAC 930.15
	Ash of flour	AOAC 923.03
	Protein, Total in flour	AOAC 920.87
	Crude Fat	AOAC 945.18A, AOAC 920.39
	Crude Fat	MS 1416 (1997)
	Total Carbohydrate	AOAC: Methods of Analysis for
	(by calculation)	Nutrition labeling (1993): page 8
	Calories (by calculation)	AOAC: Methods of Analysis for
	Calories (by calculation)	Nutrition labeling (1993): page 5
Sauces, Herbs, Spices	Cholesterol	None
Seafood	Salmonella spp.	None
Traditional E Medicines	Arsenic e Cadmium e	021 based on AOAC 968.08 (Sample Preparation) &
	Copper e	USEPA 6010 B
	Lead e	None
	Mercury	In-house Method LWI-MFF 027 based on USEPA 7473 by
	Mercury	Mercury Analyser
Vegetables And	Cholesterol	None
Waste Water/ Effluents)	Chemical Oxygen Demand	None
	Chloride	APHA 4500-CI B
	Hardness	APHA 2340 C
	Nitrogen (Ammonia)	APHA 4500-NHs B
	Nitrogen (Ammonia)	APHA 4500-NHs C
	Oil & Grease	APHA 5520 B
	pH Value	APHA 4500-H* B
	Sulphate	APHA E
	Total Suspended Solids	APHA 2540 D
	Total Solids	APHA 2540 B
	Preliminary Treatment of Sample for	APHA 3030 E
	Metal Analysis	APHA 3030 F
	Metal Analysis	APHA 3030 G
	(BODs at 20° C)	None
Water & Dialysis	Metal by GFAAS	APHA 3113 B
Water / Effluent	Chemical Oxygen Demand	APHA 5220 C
	Chlorine (Residual)	APHA 4500-Cl G
	Anions - Ion Chromatography	In-House LWI-MWE 048
	Bromide	Based on APHA 4110 B
	Chloride	None
	Fluoride	None
	Nitrate	None
	Nitrite	None
	Phosphate	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Sulphate	None
	Total Organic Carbon	APHA 5310 C
	Conductivity	APHA 2510 B
	Formaldehyde	HACH Method 8110 -"- MBTH
	Phenols	HACH Method 8047 -"
	Phenols	Aminoantipyrine
	Cyanide	HACH Method 8027 -"
	Cyanide	Pyridine-Pyrazalone
	Chromium Hexavalent	APHA 3500 Cr B
Water And Effluents	Alkalinity	APHA 2320 B
	Biochemical Oxygen Demand	APHA 5210 B / APHA 4500-0 C

SCOPE OF TESTING : MICROBIOLOGY

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
(microbiological)	Total Coliform Count	APHA 9222 B
	Legionella spp	AS/NZS 3986:1998
	Staphylococcus aureus	FDA-BAM, Ed, Chap 12
	Yeast & Mould	FDA-BAM, Ed, Chap 18
	Mesophilic aerobic sporeformers	APHA Compendium of Methods for the
	Mesophilic aerobic sporeformers	Microbiological Examination of Food
	Mesophilic aerobic sporeformers	Chapter 22
	Bacillus cereus	APHA Compendium of Methods for the
	Bacillus cereus	Microbiological Examination of Food
	Bacillus cereus	Chapter 32
Air Sampling E	Yeast & Mould	based on APHA Compendium of Method,
	Coliform	Chapter 3, Ed.
	Staphylococcus aureus	Sedimentation e Impaction (Sieve Sampler) e
Baked Goods/	Total Coliform Count	None
Confection	Escherichia coli	FDA-BAM, Ed, Chap 4
	None	002: The Determination of Benzoic
Potable & Industrial	Heterotrophic Plate Count	APHA 9215 B
Products	Aerobic Plate Count	None
	Total Coliform Count	FDA-BAM, Ed, Chap 4
	Fecal Coliform	None
	Salmonella spp.	FDA-BAM, Ed, Chap 5
	- Sulphate	BS 1377, 1990-Part 3 Section 5

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	- pH Value	BS 1377, 1990-Part 3 Section 9
	- Loss on Ignition	BS 1377, 1990-Part 3 Section 4
	Average Grain Size Measurement	Method)
	- Rockwell Method	ASTM E18: 20
	Break Test (Filled Weld)	None
	Properties Measured /	Method/
	Total Plate Count	Plating
	Coliform	Determination of Coliform & E.coli
	Escherichia Coli	(Pour Plate Method) - AOAC
	Escherichia Coli	performance tested. Certificate no.
	Escherichia Coli	020902
	Coliform	AOAC 998.08. Edition,
	Escherichia Coli (Petrifilm)	2019/Petrifilm
	Staphylococcus Aureus (Petrifilm)	AOAC 2003.11. 21% Edition,
	Staphylococcus Aureus (Petrifilm)	2019/Petrifilm
	Salmonella (Petrifilm)	AOAC 2014.01. 21% Edition, 2019/Petrifilm
	Salmonella	FDA BAM Chapter 5. 2020;
	(Alpha Tocopherol, Alpha Tocotrienol,	70, No. 12, December 1993/HPLC
	Beta Tocotrienol, Gamma Tocotrienol,	None
	Delta Tocotrienol)	None
	Phytosterols Content	EvTM_0008/HPLC
	(Sitosterol, Stigmasterol)	None
	Plant Squalene	EvTM_0007/HPLC
	Solvent Residue	EvTM_0005/GC Headspace
	(Hexane, Ethyl Acetate, Methanol,	None
	Isopropanol, Dichloromethane,	None
	Ethanol)	None
	Benzo A Pyrene	EvTM_0004, Based on AOCS Cd
	Benzo A Pyrene	21 - 91, 5"' Edition (2003)
	Moisture	AOCS Ca 2e - 84, Edition
	Moisture	(2003)
	Mixed Carotene	None
	Mixed Carotene	EvTM_0150/HPLC
	Solvent Residue	EvTM_0151/GC-HS
	(Hexane, Ethyl Acetate, Methanol,	None
	Isopropanol, Dichloromethane,	None
	Ethanol)	None
	Moisture	AOCS Ca 2e - 84, Edition
	Moisture	(2003)
	None	None
	2,6-Di-Tert-Butyl Hydroxytoluene	EvTM_0049/GC
	Tocotrienol, Beta Tocotrienol,	1993/HPLC
	Gamma Tocotrienol, Delta	None
	Tocotrienol)	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Benzo A Pyrene	EvTM_0114, Based on AOCS Cd 21-91, 5th Edition (2003)
	Mixed Carotene	EvTM_0115/HPLC
	Mixed Carotene	EvTM_0116/UV-VIS
	Lycopene Content	EvTM_0118/UV-VIS
	Plant Squalene	EvTM_0124/HPLC
	Phytosterols Content (Sitosterol, Stigmasterol)	EvTM_0125/HPLC
	Solvent Residue (Hexane, Ethyl Acetate, Methanol,	EvTM_0126/GC HS
	Isopropanol, Dichloromethane,	None
	Ethanol)	None
	Moisture	AOCS Ca 2e - 84, Edition
	Moisture	(2003)
	Total Aerobic Microbial Count	XVI B
	Total Combined Yeasts/ Moulds	BP 2020/Volume
	Count	XVI B
	Coliform Count	FDA BAM Chapter 4, 2020
	Bile-Tolerant Gram-Negative	BP 2020/Volume
	Bacteria	XVI B
	Detection of Specific Microorganism	BP 2020/Volume
	Pseudomonas aeruginosa	IV/Appendix XVI B
	Staphylococcus aureus	None
	Escherichia coli	None
	Salmonella spp	None
	Total Aerobic Microbial Count	XVI B
	Total Combined Yeasts/ Moulds	BP 2020/Volume
	Count	XVI B
	Coliform Count	FDA BAM Chapter 4, 2020
	Bile-Tolerant Gram-Negative	BP 2020/Volume
	Bacteria	XVI B
	Detection of Specific Microorganism	BP 2020/Volume
	Pseudomonas aeruginosa	XVI B
	Staphylococcus aureus	None
	Escherichia coli	None
	Salmonella spp	None
	None	spp. by Real-Time PCR (qPCR) -” SYBR
	None	None
	None	in Soybean by real-Time PCR (qPCR)
	None	DNA (Universal Plant) by Real-Time
	Free Fatty Acids	None
	Moisture and Volatile Matter Hot	AOCS Ca 2b-38 (1997)
	Plate Method	None

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Insoluble Impurities	AOCS Ca 3a-46 (1997)
	Iodine Value of Fats and Oils	None
	Cyclohexane-Acetic Acid	AOCS Cd 1d-92 (1997)
	Method	None
	Slip Melting Point	None
	AOCS Standard Open Tube	AOCS Cc 3-25 (1997)
	Melting Point	None
	Color	AOCS Cc (1997)
Site Monitoring	Total Plate Count	In-house Method LWI (MISC)-MME 012
	Total Plate Count	In-house Method LWI (MISC)-MME 012
Swab E	Yeast & Mould	based on APHA Compendium of Method,
	Coliform	Chapter 3, Ed.
	Staphylococcus aureus	Surface contact method e
Water	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
	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

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

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