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LABORATORY LOCATION/ CENTRAL OFFICE:	F&N Beverages Manufacturing Sdn. Bhd. No. 1, Jalan Bukit Belimbing 26/38, Persiaran Kuala Selangor, Section 26 40400 Shah Alam, Selangor , 40400, SELANGOR MALAYSIA	
ACCREDITED SINCE :	06 APRIL 2025	
FIELD(S) OF TESTING:	CHEMICAL	

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:	F&N Beverages Manufacturing Sdn. Bhd. No. 1, Jalan Bukit Belimbing 26/38, Persiaran Kuala Selangor, Section 26 40400 Shah Alam, Selangor, 40400, Selangor
FIELD(S) OF TESTING:	CHEMICAL,

SCOPE OF TESTING: CHEMICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Beverages (non Alcoholic Beverages)	None	In house Method No: based on AOAC
	Brix (Refractometer)	In house Method, Ref No: FN/QAL/W01-4 (Refractometer)
Beverages (non Alcoholic Beverages) Carbonated Soft Drink Non Carbonated Soft Drink	рН	house Method In No: (a) based on AOAC 981.12, pH of Acidified Foods
	Concentration Sugar ?B DMA)	In house method, Ref No: FN/QAL/W01-3 (DMA)
Concentrated Syrup In Bib	None	None
Cordial Syrup	None	None
Food	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Ash	AOAC 945.46
	Carbohydrate	In-house method TM-FD-006:
	Calories (by calculation)	In-house method TM-FD-009
		based
	None	None
	Bacterial identification up to	BD BBL Crystal Identification
	species level (Refer to Appendix	Gram Positive ID Kit & Gram
	A(i) & A(ii))	Negative ID Kit (Enteric / Non Fermenter ID Kit) LWI
	Synthetic Colouring	In-house Method, CL/FD/017, based
	Water Activity	In-house Method, CL/FD/017 based on Decagon Paw Kit Water Activity Meter Manual
	Crustacean	n-house Method NA/FD/016 using Real-Time PCR
	Moisture	n-house Method
	Leaching procedure for:	None
	None	None
	Trace Metal Analysis	None
	Salmonella Detection	FDA BAM Chapter 5
	None	None
	Campylobacter jejuni and C. coli	In-house method Detection of
	1) Ash Content in Food Products	In House Method
	Fat (Total, Saturated &	In-house method
	Aerobic Plate Count	FDA -" BAM Chapter 3, 2001
	None	None
	None Protein	None In-house Method: CA/R/007,
	Total Diaton, Ethan	Based on
	Total Dietary Fiber	In-house Method WI/JC-LAB/029
	Enumeration of	None
	Aerobic Plate Count	FDA BAM Chapter 3, 2001
	Staphylococcus aureus	AOAC Official Methods of Analysis
	None Antimony	None In House Method TM/F-001 refer
	None	to None
	Alcohol (ethanol)	In-house Method No: JAKIM /
	Alcohol (ethanol)	In-house Method No: JAKIM /

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Salmonella spp.	AOAC OMA 2016.01 (3M-,¢
		Molecular
	None	Based on Porcine Trace ® Rapid
	None	None
	None	None
	None	None
	Determination of Cholesterol in	JKM F 1208: In-house based on
	Total Acidity in Food by Titration	JKM F 0935 In-house Method based
	Determination of Melamine in	JKM F 1302 In-house Method based
	Determination of Total Arsenic in	JKM F 0509 In-house Method based
	Net Weight	JKM F 0944 In-house Method based
	Determination of Vitamin C	In-house method JKM F 1211 based
	Determination of Vitamin A	In-house method JKM F 1212 based
	Determination of Water Activity	JKM M 3082
	Yeast and Mould	JKM M 3084 -" Enumeration of Yeast
	Detection and Enumeration of	JKM B 0201
	Coliform Counts (Petrifilm)	JKM M 3053 AOAC, 21* Edition, 2019 (991.14) -"
	Detection of Cronobacter	JKM M 3083
	Extraction of Food Samples	JKM B 0105 DNA Extraction and
	Sequencing of mitochondrial	JKM B 0310 Speciation of animal
	Foreign Matter and Extraneous	JKM B 0405 Determination of
	Identification of Insects/Foreign	JKM B 0404. Determination of
	Identification of Foreign Matter in	JKM B 0402. Identification of Rodent
	Determination of the Origin of	JKM B 0403. Determination of Origin
	None	None
	None	In-house method, WI-TEC-M001,
	None	None
	None	In-house method, WI-TEC-M014,
	None	None
	None	None
	Pesticides	None
	None	None
	None	None
	None	None

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	AOAC 990.12,19" Edition 2012
	None	In-house method, WI-TEC-
	1.5.1.5	M015M,
	Fat	In-house Method SOP-0217-1008
	Total Sugar (Titration)	AOAC 968.28, Edition, 2005
	Vitamin C	In-house Method SOP-0217-1015 by
	Energy as Calories	In-house Method SOP-0217-1032
	Shigella	FDA/BAM Chapter 6, Feb 2013
	None	None
	None	None
	Tin (Sn)	In-house Method C/FOD/029
	None	None
	Ascorbic Acid (Vitamin C)	In-house Method C/FOD/003
	None	None
	None	None
	None	None
	Staphylococcus aureus -" Most	AOAC 987.09
	Probable Number	7.67.65 551.155
	Enumeration of Mesophilic Lactic	ISO 15214: 1998
	Acid	100 1021 11 1000
	None	None
	Detection & Enumeration of Coliform	AS 5013.3 - 2022
	Enumeration of Coliform	FDA-BAM Chapter 4 (I.G)
	Detection & Enumeration of	AS 5013.15 -" 2006
	Escherichia coli	
	Enumeration of Escherichia coli	FDA-BAM Chapter 4 (I.G)
	Detection of Salmonella spp.	AS 5013.10 - 2009
	Enumeration of Yeast and Molds	FDA -" BAM Chapter: 18
	Detection of Listeria	In-house Method M/FOD/010
	monocytogenes	based on FDA -" BAM Chapter 10:2011
	Enumeration of Bacillus cereus	In-house Method M/FOD/011 based on FDA -" BAM Chapter 14:2012
	Enumeration of Fecal Coliform	CMME of Foods - Chapter 8.8
	Clostridium perfringens Count	ISO 7937:2004
	Tin	None
	Sugar Profile:	In-house method SGS-TM- FOOD-104
	Folic acid	In-house method SGS-TM- FOOD-106
	Metals Contaminants Arsenic, As Lead, Pb Copper, Cu	In-House Method, SGS-WI- LAB-028 based on AOAC 986.15, 975.03, 922.02, 2011.14 & 2015.01, APHA 3120B and APHA 3125B

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Total Sugars	In-house method, SGS-TM-FOOD-
	Water activity	In-house method, SGS-TM-FOOD-
	None	None
	Vitamin A	In-house method SGS-TM-FOOD 050 based on Bull. Dept. Med Sci Vol 37, No. 1 Jan -" March 1995,
	Total Aerobic Count	AOAC 989.10: 2005 & AOAC
	Listeria monocytogenes	In-house method, SGS-TM-MICR
	None	None
	Porcine DNA	In-house method, SGS-TM-BIOT-
	Total Plate Count	AS 1766.2.1-1991
	Listeria monocytogenes	ISO 11290-1:2017 (E) / Detection
	Salmonella spp.	ISO 6579:2017 (E) / Detection
	Bacillus cereus	ISO 7932:2004 (E) / Enumeration
	Bacillus cereus	ISO 21871:2006 (E) / Detection and
	Vibrio parahaemolyticus	ISO/TS 21872-1:2017(E) / Detection
	Escherichia coli	ISO 7251:2005 (E) / Detection and
	E. Coli 0157	ISO 16654:2001(E) / Detection
	Yeast and Mould Count	In-house method Ref. No. MOH:
	Aerobic Plate Count	In-house method based on AOAC
	Coliform	ISO 4831:2006 (E) / Detection an
	Mesophilic Lactic Acid Bacteria	ISO 15214:1998 (E) / Enumeratio
	DNA Extraction	In-house Method, Ref. No. MOH
	Benzoic acid	In-house Method, Ref. No. MOH:
	Saccharin	In-house Method, Ref. No. MOH:
	Sulphur Dioxide	In-House Method, Ref. No. MOH:
	Boric acid	In- House Method, Ref. No. MOH
	Formaldehyde	In-house Method, Ref. No. MOH:
	Egg Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Peanut Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Milk Allergen- Qualitative	In-house Method, Ref. No. MOH:
	Gliadin Allergen ? Qualitative	In-house Method, Ref. No. MOH:
	Soy Allergen- Qualitative	In-House Method Ref. No. MOH
	Crude Fibre	AOCS Ba 6-84
	None	Microbiology of food and animal
	None	feeding stuffs- Horizontal method for
	Listeria monocytogenes	the detection and enumeration of
	Listeria monocytogenes	Listeria monocytogenes- Part 1:
	Listeria monocytogenes	Detection Method
	Listeria monocytogenes	Method No: MOH
	Listeria monocytogenes	AOAC Official Method 991.14 3M-,¢



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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Escherichia coli / Coliform	Petrifilm-,¢ E.coli / coliform count Plates
	Escherichia coli / Coliform	Method No: MOH K03-203
	Escherichia coli / Coliform	AOAC Official Method 990.12
		3M-,¢
	Aerobic Count Plates	Petrifilm-,,¢ Aerobic Count Plates
	Aerobic Count Plates	Method No: MOH
	Aerobic Count Plates	AOAC Official Method 2003.07
	Staphylococcus aureus	2003.08, 2003.11 3M-,¢ Staph Express Count Plate
	Staphylococcus aureus	Method No: MOH K03-205
	Staphylococcus aureus	AS/NZS 1766.2.9:1997
	Staphylococcus aureus	Examination
	Staphylococcus aureus	for specific organisms- Vibrio
	Vibrio parahaemolyticus	parahaemolyticus of Australian
	Vibrio parahaemolyticus	Standard
	Vibrio parahaemolyticus	Method No: MOH K03-310
	Vibrio parahaemolyticus	ISO 7932, Third Edition
		2004-06-16
	Vibrio parahaemolyticus	Microbiology of food and animal
	Vibrio parahaemolyticus	feeding stuffs -" Horizontal method
	Bacillus cereus	for the enumeration of presumptive
	Bacillus cereus	Bacillus cereus -" Colony- count
	Bacillus cereus	technique at 30°C
	Bacillus cereus	Method No: MOH (1)
	Bacillus cereus	ISO/TS 22964:2006 (E)
	Enterobacter sakazakii	IDF/RM 210:2006 (E) -" Detection
	Zinorozaotor banazanii	of Enterobacter sakazakii
	Enterobacter sakazakii	Method No: MOH K03-115
	Enterobacter sakazakii	ISO 16654:2001 (E) -" Horizontal
	E. coli 0157	method for the detection of
		Escherichia coli 0157
	E. coli 0157	Method No: MOH
	Coagulase positive	ISO 6888-1:1999/Amd.1:2003 (E)
	staphylococci	Method No: MOH KO3-105 (1)
	Vibrio Species other than cholerae	other than Vibrio parahaemolyticus
	Vibrio Species other than cholerae	and Vibrio cholera
	Vibrio Species other than cholerae	Method No: MOH KO03-111 (2)
	Vibrio Species other than cholerae	ISO 10272 -" 1: 2006 (E)
	White Occasion the the	Horizontal
	Vibrio Species other than cholerae	Method for Detection and
	Camphylobacter spp	Enumeration of Camphylobacter spp" Part 1: Detection Method
	Camphylobacter spp	Method No: MOH (1)
	Camphylobacter spp	ISO 11290-2: 1998 / Amd. 1:2004 (E)

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Material / Product Tested	Type Of Test / Properties	Standard Test Methods /
	Measured / Range Of Measurement	Equipment / Techniques
	Camphylobacter spp	Horizontal Method for Detection
		and
	Camphylobacter spp	Enumeration of Listeria
	Listeria monocytogenes	Monocytogenes Part 2 =
		Enumeration Method, Amendment 1:
	Listeria monocytogenes	Modification of enumeration Medium
	Listeria monocytogenes	Method No: MOH (1)
	Boric Acid	E03-003 The Determination of
	Water soluble synthetic food	Water Soluble Synthetic Food
	colour (see Appendix)	Colour in Food by Paper
	colour (see Appendix)	Chromatography and UV/ V15
	colour (see Appendix)	spectrophotometer
	colour (see Appendix)	In -" House Method, Ref. No. MOH
	Total Plate Count (TPC)	FDA Food and Drug =
	Determination of Boric acid in Food	FQL-TM-FA205 In-House Method
	by UV-Vis Spectrophotometer	based International Food on
	by UV-Vis Spectrophotometer	Research Journal 17: 1107-1112
	by UV-Vis Spectrophotometer	(2010)
	Total Plate Count in Food by	AOAC Official Method 990.12
	using 3M Petrifilm Aerobic Count	None
	Plate	None
	Enumeration of Escherichia Coli	AOAC Official Method 991.14
	in Food by using 3M Petrifilm	None
	Escherichia Coli/Coliform Count	None
	Plates	None
	Enumeration of Coliform in Food	AOAC Official Method 991.14
	by using 3M Petrifilm Escherichia	None
	Coli/Coliform Count Plates	None
	Enumeration of Staphylococcus	AOAC Official Method 2003.07
	Aureus in Food by using 3M	None
	Petrifilm Staph Express Count	None
	Plates	None
	Detection of Bacillus Cereus in	Compact Dry -œNissui-• Bacillus
	Food	Cereus
	Detection of Salmonella in Food	Bacteriological Analytical Manual,
	Detection of Salmonella in Food	Chapter 5, Salmonella
	Detection of Salmonella in Food	AOAC Official Method of Analysis
	by using 3M Petrifilm Salmonella	2014.1
	Express System	None
	Salmonella spp.	ISO 6579-1:2017
	Analysis of	Analysis of Organophosphorus
	OrganophosphorusMethod: AOAC 2007.01	, , , , , , , , , , , , , , , , , , , ,
	Analysis of Organophosphorus	
	Total Plate Count (TPC)	FDA Food and Drug =

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Aerobic Plate Count	AOAC Official Method 990.12
	, torour riano obarri	Aerobic
	Bacillus cereus	ISO 7932:2004 (E) Microbiology of
		Food
	Yeast and Mold	AOAC Official Method 2014.05
	Enumeration of	MOH Based on AOAC
	Enumeration of Mesophilic	MOH MMEF Part 4 Section
	Campylobacter spp	MOH (1): ISO 10272-
	Gram Negative Pathogens	In-house Method, Ref. No. MOH
		RO3-
	Boric Acid	In-house Method, Ref. No. MOH
	Water Soluble Colours	In-house Method, Ref. No. MOH
	Moisture	In-house Method Ref. No. MOH
		J03-
	Ash	MOH Determination Of Ash
	1) Antimoni	MOH The Determination of
	Water Activity	In-House Method MOH J03-049:
	Soluble Solid	In-House Method MOH J03-018:
	Mercury	In-House Method MOH H03-015:
	Acrylamide	In-House Method MOH NO3-015:
Non Carbonated Soft Drink	None	None
Potable And Domestic	None	Wastewater, 18th Edition 1992
	None	None
	Total Solid	2540 B
	Heterotrophic Plate Count	APHA 9215 B
	None	None
	Taste	APHA 2160 B, 24" Edition
	Escherichia coli	None
Processed Water	None	None
	- Dibromochloromethane	None
	Hardness, EDTA Trimetric	APHA 2340 C, 2017
	Tin	None
	Heptachlor epoxide	None
	Fluoride Nitrate	APHA 4110 B (lon
		Chromatography), 24' Edition
Raw Soya Bean	Protein	In house Method No:
Reverse Osmosis Water	None	None
	None	None
	None	None
	Zinc	None
	(Membrane filtration)	None
	Zinc	3120 B
	None	None
	None	None
	None	None
	None	Endotoxin Test
	None	None
	250mL	(Enumeration)

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	None	APHA 9221 B, Edition (2012)
	None	None
	Free, Combined and Total	In-House Method 0501 based on
	Residual Chlorine (DPD)	Palintest Comparator
	Total Alkalinity as CaCOs	APHA 2320 B
	None	None
	Copper Barium	APHA 3125 B (ICP-MS), 24"
		Edition
	None	APHA 4500 OG
	None	APHA 9222
	Streptococcus Count	(Membrane Filtration Method)
Soya Drink Range	None	(Crude) in Animal Feed, Forage
		(Plant Tissue), Grain and
Water Mineral Water	рН	house Method In No: (b) based on
		APHA Standard Method for The
	РН	APHA 4500-H*B (2012)