CERTIFICATE OF ACCREDITATION

In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

MICROCHEM LABORATORY SERVICES (PTY) LTD

Co. Reg. No.: 2007/010539/07

Facility Accreditation Number: **T0393**

is a South African National Accreditation System accredited facility
provided that all conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying schedule of accreditation, Annexure "A", bearing the above accreditation number for

CHEMICAL AND MICROBIOLOGICAL ANALYSIS

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to use the relevant accreditation symbol to issue facility reports and/or certificates

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Mr R Josias
Chief Executive Officer

Effective Date: 04 November 2019
Certificate Expires: 10 April 2023

ANNEXURE A

SCHEDULE OF ACCREDITATION

Facility Number: **T0393**

Permanent Address of Laboratory:

Microchem Laboratory Services (Pty) Ltd
1st Floor, Fairweather House
176 Sir Lowry Road
Woodstock
Cape Town
8001

Technical Signatories:

Ms	I Liedemann (Microbiology: All Methods)
Mr	JG Esterhuizen (Chemistry: S.O.P.C 1, 2, 14, 19, 20, 25, 26, 27, 29, 33, 36, 41, 53, 54, 45)
Mr	S Moses (Microbiology: All Methods)
Mr	K Stungu (Chemistry: S.O.P.C 1, 2, 14, 19, 20, 25, 26, 27, 29, 33, 36, 52, 53, 54, 73, 45, 55, 65, 66, 67, 72)
Mr	S Tsewu (Chemistry: S.O.P.C 1, 2, 14, 19,20, 25, 26, 27, 29, 33, 36, 52, 53, 54, 73, 45, 55, 56, 65, 66, 67, 72)
Mr	R van Kerpel (Pesticides: S.O.P.C 57,63,64)
Mr	PT Hartzenberg (Microbiology : All Methods)
Mr	S Newborn (Pesticides: S.O.P.C 57, 63, 64)

Postal Address:

P O Box 12068
Mill Street, Gardens
8010

Nominated Representative:

Mr JG Esterhuizen

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E-mail: hannes@microchem.co.za

Issue No.: 29
Date of Issue: 26 February 2020
Expiry Date: 10 April 2023

Material or Products Tested	Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Techniques / Equipment Used
CHEMICAL		
Protein, Seafood, Produce, Dairy, Miscellaneous & Beverages	Determination of % Moisture	S.O.P.C No.1: AOAC 950.46 Method: Oven Drying
	Determination of % Ash	S.O.P.C No.2: AOAC 923.0 Method: Ashing by Furnace
	Determination of % Salt as Sodium Chloride	S.O.P.C No.14: AOAC 971.27& Metrohm Application Method: Potentiometric
	Determination of % Acidity	S.O.P.C No.19: AOAC 942.15 Method: Titration
Protein, Seafood, Produce, Dairy, Miscellaneous & Beverages	Determination of Total Dietary Fibre	S.O.P.C No.20: AOAC 991.43 Method: Enzyme gravimetric analysis
	The Determination of Total Fat; Saturated Fat; Mono-unsaturated Fat; Poly un-saturated Fat; Trans Fat	S.O.P.C No.25: AOAC 996.06 Method: GC

	The Determination of Cholesterol	S.O.P.C No.26: AOAC 996.06 Method: GC
	Determination of Total Sugar; % Fructose; % Glucose; % Sucrose; % Maltose; % Lactose	S.O.P.C No.27: AOAC 982.14 Method: HPLC
	Determination of Vitamin A & Vitamin E	S.O.P.C No.29: AACC Method: 86-06 Method: HPLC
	Determination of Vitamin C	S.O.P.C No.33: AOAC 984.26 Method: HPLC
	Determination of % Nitrogen & % Protein	S.O.P.C No.36 Method: Dumas combustion method
	Determination of Total Sugar by GC; % Fructose, % Glucose, % Sucrose, % Maltose; % Lactose; % Trehalose; % Galactose	S.O.P.C No.52 Method: GC
	Determination of % Starch	S.O.P.C No.53: AOAC 996.11 Method: HPLC
	Calculation of Glycaemic Carbohydrates	S.O.P.C No.54
	Determination of Total Sugar Alcohols in Foods	S.O.P.C No. 73: Method: Gas Chromatography
Protein, Seafood, Produce, Dairy, Miscellaneous & Beverages	Determination of Elemental Content Na, Mg, K, P, Zn, Ca, Cu, Fe, As, Cd, Pb,	S.O.P.C No.45 Method: ICP OES
	Determination of Vitamin B1, Vitamin B2 Vitamin B3 and Vitamin B6	S.O.P.C No.56 Method: HPLC
Residues in foods and Agricultural Products: Pome fruit, stone fruit, Citrus fruit, Small fruit and Berries, Tropical and Subtropical Fruit-edible peel, Tropical and Subtropical Fruit-inedible peel, Water and Tea	Quantitative Determination of Pesticide Residues by GC-MS/MS and LC-MS/MS	S.O.P.C No. 57: EN 15662 QuECHERS Method: GC-MSMS and LC-MSMS
Residual in Foods and Agricultural Products: Pome Fruit, Stone Fruit, Citrus Fruit, Small Fruit and Berries	Quantitative Determination of CS_2 by Headspace GC-MS	S.O.P.C No. 63 Method: GC-MS
	Quantitative Determination of Ethephon Residues in Fresh Fruit by LC-MS/MS	S.O.P.C No.64: Quppe Methods Method: LC-MSMS
Waters for potable, domestic and industrial purposes	Determination of Ammonium, Chloride, Cyanide, Fluoride, Nitrate, Nitrite, Phenol, Monochloramine, Free Chlorine, Sulphate and Total Organic Carbon	S.O.P.C No.55 Method: Spectrophotometer
	Determination of Conductivity and Total Dissolved Solids	S.O.P.C No.65 Method: Conductivity meter
	Determination of pH	S.O.P.C No. 66 Method: Ph meter
	Determination of Turbidity	S.O.P.C No.67 Method: Turbidity meter
	Determination of Colour	S.O.P.C No.72 Method: Spectrophotometer

MICROBIOLOGY

Protein, Seafood, Produce, RTE/Multi-component foods, Dairy, Swabs & Miscellaneous	Enumeration of Total Viable Mesophilic Aerobic Organisms in Foods, Colony Count Technique at 35°C	S.O.P.M 1C: MFHPB-18
	Detection of *Salmonella* spp	S.O.P.M 9F: AFNOR BRD 07/11-12/05
Protein, Seafoods, Produce, RTE Multi Component, Dairy, Miscellaneous & Environmental Samples	Determination of Virulence Genes in Shiga Toxin Producing *Escherichia coli* (STEC) using PCR	S.O.P.M 33: ISO /TS 13136:2012
Protein, Seafoods, Produce, RTE Multi Component, Dairy, Miscellaneous & Environmental Samples and Water	Determination of viable *Listeria* spp.	S.O.P.M 7H: AFNOR BRD 07/04-09/98
Protein, Seafoods, Produce, RTE Multi Component, Dairy, Miscellaneous & Environmental Samples and Water	Detection of viable *Listeria* spp.	S.O.P.M 71: AFNOR BRD 0/16-01/09
Protein, Seafoods, Produce, RTE Multi Component, Dairy, Miscellaneous & Environmental Samples and Water	Detection of *viable Listeria monocytogenes* organisms	S.O.P.M 7B: AFNOR BRD 07/04-09/98
	Enumeration of Yeasts and Moulds, Colony Technique at 25°C	S.O.P.M 5B: AOAC 6.1:1997
	Enumeration of Coliforms, Colony Count Technique at 37°C	S.O.P.M 2C: ISO 4832
	Enumeration of viable *Escherichia coli*	S.O.P.M 3F:ISO 16649-2
	Enumeration of coagulase-positive staphylococci *(Staphylococcus aureus* and other species*)*	S.O.P.M 4F: ISO 6888-2
	Enumeration of *Enterobacteriaceae* without resuscitation, colony count technique at 37°C	S.O.P.M 6A: ISO 7402
	Quantitative Enumeration of viable *Listeria monocytogenes* organisms	S.O.P.M 7C: AFNOR BRD 07/05-09/01
Protein, Seafood, Produce, RTE/Multi-component foods, Dairy & Miscellaneous	Enumeration of presumptive *Bacillus cereus*, colony count	S.O.P.M 12B Oxoid
	Enumeration of *Clostridium perfringens,* colony count technique at 35°C	S.O.P.M 16 Oxoid
Drinking & Raw water	The Determination of the Heterotrophic Total Bacteria Bacterial Count in at 35°C	S.O.P.M 1F:APHA 9215
	Enumeration of Coliforms in, Membrane Filtration Method at 37° C, without Further Confirmation	S.O.P.M 2F: AFNOR BRD 07/20-03/11
	Enumeration of *Escherichia coli* , Membrane Filtration Method at 37° C, without further Confirmation	S.O.P.M 3H: AFNOR BRD 07/20-03/11

	Enumeration of Thermotolerant (faecal) Coliforms, Membrane Filtration method: at 44°C Without Further Confirmation	S.O.P.M 28: AFNOR BRD 07/20-03/11
Protein, Seafood, Produce, RTE/Multi-component foods & Dairy	Enumeration of Mesophilic Lactic Acid Bacteria	S.O.P.M 10A: ISO 15214:1998(E)
	Enumeration of *Pseudomonas* species, colony count technique at 25°C	S.O.P.M 11A: ISO 13720

Original Date of Accreditation: 11 April 2008

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager