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CHEMIPHAR (U) Ltd.
UGANDA

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In the name of the Accreditation Board,
The Chair,

Nicole Meurée-Vanlaethem

BELAC

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1. MICROBIOLOGY

Foodstuffs

Code	Matrix	Characteristics	Method / technique
PC-food-TA	Foodstuffs	Total aerobic Plate Count at 30°C (plate count method)	AFNOR V 08-051 ISO 4833
PC-food-T/F-coli	Foodstuffs	Total and thermotolerant coliforms, (plate count method)	AFNOR V 08-050 : total coliforms AFNOR V 08-060 : faecal coliforms
PC-food-E.coli	Foodstuffs	Enumeration of *E. Coli* (plate count method)	AFNOR SDP – 07/1-07/93 Rapid E.coli 2
Qual-food-salm	Foodstuffs	Determination of *Salmonella* (qualitative)	ISO 6579
PC-food-staph	Foodstuffs	Determination of coagulase positive *Staphylococci* (Including *Staphylococcus aureus*).	ISO 6888
PC-food-ASR	Foodstuffs	Sulphite Reducing Anaerobes (plate count method)	ISO 15213
PC-food-F.Strep	Foodstuffs	Determination of Intestinal *E*nterococci	Prof. Dr. A.A. Mossel, Corry J.E.L., Struijk, Baird J.M – a textbook of advanced studies (1995) Essentials of the Microbiology of foods
Qual-food-vibrio	Foodstuffs	Qualitative determination of *Vibrio cholerae* and *Vibrio parahaemolyticus*.	Method based on: FDA method Bacteriological Analytical Manual (8th Edition 1995), NF ISO 8914 , Nordic Committee on Food Analysis (method n° 156/1996)
Qual-food-L.mono	Foodstuffs	Determination of *Listeria monocytogenes* (qualitative)	ISO 11290-2 AFNOR V08-055

Water

Code	Matrix	Characteristics	Method / technique
SamPL-Trans	Water/ Swimming pool water/ Drinking water	Sampling and transport	Prof. Dr. A.A. Mossel (1980) p 241 Standard Methods for the Examination of water and wastewater, APHA (1985)
MF/PC-water-TAC22	Water/ Swimming pool water/ Drinking water	Enumeration of aerobic & facultative anaerobic micro-organisms at 22°C (membrane filtration or pour plate method)	ISO 6222
MF/PC-water-TAC37	Water/ Swimming pool water/ Drinking water	Enumeration of aerobic & facultative anaerobic micro-organisms at 37°C (membrane filtration or pour plate)	ISO 6222
MF-water-T.col	Water/ Swimming pool water/ Drinking water	Total and thermotolerant coliforms and *E. coli* (membrane filtration method)	ISO 9308-1
MF-water-F. entero	Water/ Swimming pool water/ Drinking water	Intestinal *Enterococci* (membrane filtration method)	ISO 7899-2
MF-water-ASR	Water/ Swimming pool water/ Drinking water	Enumeration of spores of sulphite reducing anaerobes (*Clostridia*) (membrane filtration method)	ISO 6461-2

2. PHYSICO-CHEMICAL

Water

For water the General Guidelines for the conservation and treatment of samples according to NBN T-91-052 (1980) apply.

Code	Matrix	Characteristics	Method / technique
Phys-water-temp	Water/ Swimming pool water/ Drinking water	Temperature	DIN 38404 – 04
Phys-water-pH	Water/ Swimming pool water/ Drinking water	pH	Potentiometry DIN 38404 – 05
Phys-water-cond	Water/ Swimming pool water/ Drinking water	Conductivity	Conductometry DIN 38404/C41
UV/VIS-water-am-N	Water/ Swimming pool water/ Drinking water	Determination of Ammonia-N	APHA, St. Methods for the Examination of Water & Waste Water, 16th Edition 417c Phenate method. Spectroquant 14752 Merck

3. CHEMICAL

Foodstuffs

Code	Matrix	Characteristics	Method / technique
Gr-food-moisture	Meat and meat products	Moisture content	Gravimetric method. Official Methods of Analysis of the Association of Official Analytical Chemists (1985) 24.002
Phys-honey-moisture	Honey	Moisture content	Refractometer method. Official Methods of Analysis of the Association of Official Analytical Chemists (1995) 969.38B
Gr-meat-ash	Meat and meat products	Ash content	Gravimetric method ISO 936
Gr-meat-fat	Meat and meat products	Determination of Fat content (Soxhlet)	Gravimetric method (after extraction) Official Methods of Analysis of the Association of Official Analytical Chemists (1985) 24.003
Titr-food/meat-KJN-protein	Meat and meat products	Protein : Kjeldahl – N	Digestion, distillation, titration Official Methods of Analysis of the Association of Official Analytical Chemists (1985) 24.027 2.057
Titr-fish-TVB-N	Fish and fish products	TVB-N (total volatile basic nitrogen)	Annex 2 to C(95) 362 Commission decision European communities
UV/VIS-honey-HMF	Honey	Hydroxy methyl furfural (HMF)	Spectrophotometric method. Official Methods of Analysis of the Association of Official Analytical Chemists (1995) 44.4.15
GCECD_fish_OCP/ClPP	Fish and Fish products	Quantitative determination of organochlorine pesticides and chlorfenvinphos	Own method derived from Pesticide Analytical Manual volume 1, 3rd edition and AOAC Official Method 983.21
GCMS-food-PAH	Fish and Fish products	Quantitative determination of polycyclic aromatic hydrocarbons (PAH) by GC-MS	Own method derived from Euro Food Chem XII proceedings and J of Chr B, 768, p. 247-254
Pest-fr_veg-ntr_extr	Fruits and vegetables	Neutral ethyl acetate extraction of OCP and OPP with GC-MS detection	Own method derived from Pesticide Analytical Manual volume 1, 3rd edition and Official methods of analysis of the AOAC International 16th edition
Pest-fr_veg-S2carb	Fruits and vegetables	Determination of dithiocarbamates by UV-VIS	Own method derived from Pesticide Analytical Manual volume 1, 3rd edition

Code	Matrix	Characteristics	Method / technique
AAS-food-metal NaK	Food and food products	Determination of sodium and potassium in foodstuffs	Atomic absorption spectrometry, B.Welz, M. Sperling 1999 The application of flow injection technology to automating cold vapour mercury analyses. Perkin Elmer
ASS-food-metal CaMg	Food and food products	Determination of magnesium and calcium in foodstuffs	Atomic absorption spectrometry, B.Welz, M. Sperling 1999 The application of flow injection technology to automating cold vapour mercury analyses. Perkin Elmer
FIMS-food-Hg	Food and food products	Determination of mercury by means of FIMS-Hydride technique	Atomic absorption spectrometry, B.Welz, M. Sperling 1999 The application of flow injection technology to automating cold vapour mercury analyses. Perkin Elmer
GT-AAS-food-Cd	Food and food products	Determination of cadmium by means of graphite tube atomiser	Atomic absorption spectrometry, B.Welz, M. Sperling 1999 Analytical methods for graphite Tube Atomisers, E.Rothery 1988 AOAC (1995) Official method 965.09
GT-AAS-food-Pb	Food and food products	Determination of lead by means of graphite tube atomiser	Atomic absorption spectrometry, B.Welz, M. Sperling 1999 Analytical methods for graphite Tube Atomisers, E.Rothery 1988 AOAC (1995) Official method 965.09

Water

Code	Matrix	Characteristics	Method / technique
Gr-water-TSS	Waste water, surface water and Borehole water	Total suspended solids	Standard methods for examination for water and waste water, APHA 1985 16th Edition, p96-97
Gr-water-TDS	Waste water, surface water and Borehole water	Total dissolved solids	Standard Methods for the Examination of Water and Waste Water, APHA 1985 16th Edition.
phys-water-DO	Waste water, surface water and Borehole water	Dissolved Oxygen	Standard Methods for the Examination of Water and Waste Water, APHA 1985 16th Edition.
Phys-water-BOD	Waste water, surface water and Borehole water	BOD: Biochemical Oxygen Demand	Standard Methods for the Examination of Water and Waste Water, APHA 1985 16th Edition.
Titr-water-COD	Waste water, surface water and Borehole water	COD : Chemical Oxygen Demand.	NBN T91-201
UV/VIS-water-NO2	Waste water, surface water and Borehole water	Determination of Nitrite (NO_2)	Standard Methods for the Examination of Water and Waste Water, APHA 1985 16th Edition.p 404-406
UV/VIS-water-KJN	Waste water, surface water and Borehole water	Determination of Kjeldahl Nitrogen (kjN)	Standard Methods for the Examination of Water and Waste Water, APHA 1985 16th Edition. p.408-409
AAS-wat-NaK	Swimming pool water and Drinking water	Determination of sodium and potassium by means of flame atomic absorption spectrometry	Standard Methods for the examination of water and waste water, 20th Edition, 1998, APHA Flame Atomic Absorption Spectrometry, Analytical Methods, Varian
AAS-wat-CaMg	Swimming pool water and Drinking water	Determination of magnesium and calcium by means of flame atomic absorption spectrometry	Standard Methods for the examination of water and waste water, 20th Edition, 1998, APHA Flame Atomic Absorption Spectrometry, Analytical Methods, Varian
FIMS-water-Hg	Waste water, Drinking water, Ground water and Surface water	Determination of mercury by means of FIMS-Hydride technique	Standard Methods for the examination of water and waste water, 20th Edition, 1998, APHA