

Accreditation Certificate

Saotharlann Chonamara Teo, trading as Complete Laboratory Solutions

Ros Muc, Connemara, Co.Galway

Testing Laboratory

Registration number: 108T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard **ISO/IEC 17025:2005 2nd Edition** “*General Requirements for the Competence of Testing and Calibration Laboratories*”
(This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

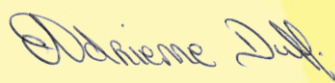
Date of award of accreditation: **17:12:2001**

Date of last renewal of accreditation: **09:08:2016**

Expiry date of this certificate of accreditation: **09:08:2021**

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: _____



Dr Adrienne Duff

Chairperson: _____



Mr Tom O'Neill

Issued on 08 August 2016

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:

Category A

Saotharlann Chonamara Teo, trading as Complete Laboratory Solutions

Chemical and Biological Testing Laboratory

Initial Registration Date :	17-December-2001	
Postal Address:	Ros Muc	Unit 3
(Address of other locations as they apply)	Connemara	IDA Enterprise Park
	Co Galway	Tuam Road, Galway
Telephone:	+353 (0)91 574355	+353 (0) 91 781690
Fax:	+353 (0)91 574356	
E-mail:	oryan@cls.ie	
Contact Name:	Olivia Ryan	
Facilities:	Public testing service	

Schedule of Accreditation



Permanent Laboratory:
Category A

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

Testing and Calibration Categories:

- Category A:** Permanent laboratory calibration and testing where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration and testing that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration and testing that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration and testing that is performed on site by individuals and organisations that do not have a permanent calibration/testing laboratory. Testing may be performed using
- portable test equipment
 - a site laboratory
 - a mobile laboratory or
 - equipment from a mobile or site laboratory

Standard Specification or Test Procedure Used:

The standard specification or test procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

Glossary of Terms

Facilities:

- Public calibration/testing service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration/testing:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration/testing:** Unavailable for public calibration/testing more often than not.

Laboratory users wishing to obtain assurance that calibration or test results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate or test report. Users should contact the laboratory directly to ensure that this scope of accreditation is current. INAB will, on request, verify the status and scope.

Scope of Accreditation



Complete Laboratory Solutions Chemical Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 Waters		Documented in-house method based on APHA "Standard methods for the examination of water and waste waters" 22 nd Edition 2012 (unless otherwise stated)
.01 Waters for potable and domestic purposes	Biochemical oxygen demand Surface water: 1-7,000 mg/L Effluent: 2-7,000 mg/L	CLS 12 Measurement of Oxygen consumed over 5 days. (APHA 5210B)
.04 Sewage	pH (4 - 10)	CLS 26 Measurement of electromotive force by electrode to determine Hydrogen ion concentration (APHA 4500 - H ⁺ B)
.05 Trade wastes		
.06 Saline waters		
.07 Bore Waters	Fats, oils and greases (5 to 10,000 mg/L)	CLS 25 Increase in weight after sample filtration and Soxhlet extraction (APHA 5520 A and D)
.08 WWTP effluent	Phosphorus (0.01 to 2,000 mg/L PO ₄ -P)	Konelab CLS 35 Colorimetric determination and adapted for discrete analyser (APHA 4500-PE)
.99 Other Waters <i>Surface waters</i>	Orthophosphate (0.03 to 6,140 mg/L PO ₄) Chloride (2.0 to 30,000 mg/L Cl) Nitrite (0.005-10 mg/L NO ₂ -N) as NO ₂ (0.017 - 33 mg/l) TON (0.1- 500 mg/L NO ₃ -N)	Konelab CLS 36 Colorimetric determination and adapted for discrete analyser (APHA 4500- CL ⁻ E) Konelab CLS 37 Colorimetric determination and adapted for discrete analyser (APHA 4500 - NO ₂ ⁻ B) Konelab CLS 38 Chemical reduction and colorimetric determination. Adapted for discrete analyser (APHA - NO ₃ ⁻ H)

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Chemical Testing Laboratory, Ros Muc

Permanent Laboratory:

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters		
.01 Waters for potable and domestic purposes	Nitrate (0.1 - 500 mg/L NO ₃ .N)	Konelab CLS 39 calculated value
.04 Sewage	Ammonia (0.005 to 600 mg/L NH ₃ -N)	Konelab CLS 40
.05 Trade wastes	As NH ₄ (0.01 - 1290 mg/l NH ₄)	Salicylate method based on Methods for the examination of water and associated Materials, Ammonia in waters, 1981.
.06 Saline water		
.07 Bore Waters		
.08 WWTP effluent	Total Hardness 20-3,000 mg/L CaCO ₃	Konelab CLS 77 Std Methods 22 nd Ed 2012, Colorimetric determination and adapted for discrete analyser (APHA - 2340 C)
.99 Other Waters <i>Surface waters</i>	Sulphate 5-3,000 mg/L SO ₄	Konelab CLS 88 based on Sulphate in Waters Effluents and Soils, 2nd edition (1988) Method E.

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters		
.01 Waters for potable and domestic purposes	Suspended Solids (2 to 15,000 mg/L)	CLS 13 Based on Standard Methods 22 nd Edition, 2012. Increase in sample filter dried at 103-105°C. (APHA 2540 D)
.04 Sewage		
.05 Trade wastes		
.06 Saline water	Chemical Oxygen Demand (10-30,000 mg/L)	CLS 52 Based on Hach Procedures Manual 9th Edition 1999.
.07 Bore Waters		
.08 WWTP effluent		
.99 Other Waters <i>Surface waters</i>		

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters	Cadmium 0.5 µg - 5,000 µg/L	Documented in-house method based on: USEPA 200.8 ICP-MS CLS129
.01 Waters for potable and domestic purposes	Chromium 0.5 µg - 5,000 µg/L	
	Copper 1 µg - 10,000 µg/L	
	Lead 0.5 µg - 5,000 µg/L	
	Iron 10 µg - 10,000 µg/L	
.07 Bore waters	Manganese 5 µg - 5,000 µg/L	
	Magnesium 0.8 mg - 800 mg/L	
.08 WWTP effluent	Calcium 3 mg - 3,000 mg/L	
	Potassium 0.5 mg - 500 mg/L	
.99 Other waters <i>Surface waters</i>	Sodium 1 mg - 1,000 mg/L	
	Zinc 5 µg - 10,000 µg/L	
	Arsenic 0.5 µg/L - 5,000 µg/L	
	Selenium 0.5 µg/L - 5,000 µg/L	
	Nickel 0.5 µg/L - 5,000 µg/L	
	Aluminium 2 µg/L - 10,000 µg/L (20 µg/L - 10,000 µg/L for .05)	
	Tin 0.5 µg/L - 5,000 µg/L	
	Beryllium 0.5 µg/L - 5,000 µg/L	
	Barium 0.5 µg/L - 5,000 µg/L	
	Boron 10 µg/L - 10,000 µg/L	
	Antimony 0.5 µg/L - 5,000 µg/L	
	Molybdenum 0.5 µg/L-5,000 µg/L	
	Cobalt 0.5 µg/L - 5,000 µg/L	
	Strontium 5 µg/L - 5,000 µg/L	
	Thallium 0.5 µg/L - 5,000 µg/L	
	Tellurium 0.5 µg/L - 5,000 µg/L	
	Vanadium 0.5 µg/L - 5,000 µg/L	

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters		In house method
.01 Waters for potable and domestic purposes	Colour, 4.0 - 500 mg/l (Pt Co)	CLS29 based on Standard methods for examination of water and waste water 22 nd Edition, 2012 (APHA 2120 C)
.05 Trade wastes		
.06 Saline Waters	Turbidity, 0.2 - 4000 NTU	CLS30, based on Standard methods for examination of water and waste water 22 nd Edition, 2012 (APHA 2130 B)
.07 Bore waters		
.08 WWTP effluent		
.99 Other waters <i>Surface waters</i>	Total Phosphorus, 0.05 to 1000 mg/L PO ₄ -P	CLS151 based on ISO 6878-2004 D11 (Macherey Nagel)
	Total Organic carbon (NPOC) 1-1000 mg/L	CLS150 based on USEPA 415.1 and Shimadzu User Manual for TOC V-CPH/CPN
	Total Nitrogen 0.5 - 1000 mg/L	CLS 152 based on ASTM D5176-08 (reapproved 2015) For total chemically bound nitrogen in water by pyrolysis and chemiluminescence detection
	Extractable Hydrocarbons by GC-FID Diesel Range and Lube Oil (C ₈ to C ₄₀) 10 to 10,000 µg/L 200 to 10,000 µg/L (Waste waters)	CLS 147 method based on USEPA 8015B.

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters		In house method
.01 Waters for potable and domestic purposes	Petrol Range Organics (PRO) (C ₅ to C ₁₂)	CLS 148 based on USEPA 8015B
.05 Trade wastes	Benzene 10-10,000 µg/l Toluene 10-10,000 µg/l	
.06 Saline waters	Ethylbenzene 10-10,000 µg/l o-Xylene 10-10,000 µg/l	
.07 Bore waters	m / p- Xylene 20-20,000 µg/l t-butyl methyl ether, 10-10,000 µg/l	
.99 Other waters <i>Surface waters</i>		

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Chemical Testing Laboratory, Ros Muc

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
781 Constituents of the environment		In house method
.31 Soils <i>(Loam, Sand & Peat)</i>	Extractable Hydrocarbons by GC-FID Diesel Range and Lube Oil (C ₈ to C ₄₀)	CLS 156 and CLS 147, method adapted from USEPA 8015B
.32 Sediments	50 mg/kg to 2,000 mg/kg 200 to 2000 mg/kg (Peat)	USEPA 8015B
	Petrol Range Organics (PRO) (C ₅ to C ₁₂) 0.1 mg/kg to 169 mg/ kg	CLS 157 and CLS 148 method adapted from USEPA 8015B
781 Constituents of the Environment		In house methods
.31 Soils <i>(Loam, Sand & Peat)</i>	Benzene 0.01 mg/kg to 20 mg/kg Toluene 0.01 mg/kg to 20 mg/kg Ethylbenzene 0.01 mg/kg to 20 mg/kg	CLS 157 and CLS 148 adapted from USEPA 8015B
.32 Sediments	m / p -Xylene 0.02 mg/kg to 40 mg/kg o-Xylene 0.01 mg/kg to 20 mg/kg t-butyl methyl ether, 0.01 mg/kg to 20 mg/kg	

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters		CLS 149 based on ISO 17993
.01 Waters for potable and domestic purposes	Polycyclic Aromatic Hydrocarbons by HPLC	and Agilent 12000 series
.99 Other waters <i>Surface waters</i>	Naphthalene 50-400 ng/l Acenaphthylene 50-400 ng/l Acenaphthene 50-400 ng/l (Surface water), 10 - 400 ng/l (Drinking water) Fluorene 10 - 400 ng/l Phenanthrene 50 - 400 ng/l (Surface water), 10 - 400 ng/l (Drinking water) Anthracene 10 - 400 ng/l Fluoranthene 10 - 400 ng/l Pyrene 50-400 ng/l Benzo (a) anthracene 10 -400 ng/l Chrysene 10 - 400 ng/l Benzo (b) fluoranthene 10 - 400 ng/l Benzo (k) fluoranthene 10 - 400 ng/l Benzo (a) pyrene 10 - 400 ng/l (Surface water), 5 - 400 ng/l (Drinking water) Dibenzo (a,h) anthracene 10 - 400 ng/l Benzo (g,h,i) perylene 10 - 400 ng/l Indeno (1,2,3-cd) pyrene 10 - 400 ng/l	G1321A user manual

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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters .01 Waters for potable and domestic purposes .05 Trade wastes .07 Bore waters .99 Other waters <i>Surface waters</i>	Conductivity at 20° C, 5 - 12,730 µS/cm 25° C, 5 - 14,090 µS/cm	In house method CLS 67 method based on Standard methods for the examination of water & wastewater, 22 nd Edition, 2012 (APHA-2510 B)
766 Waters .01 Waters for potable and domestic purposes .04 Sewage .05 Trade wastes .06 Saline .07 Bore waters .99 Other waters <i>Surface waters</i>	Fluoride 0.1 mg/l to 10 mg/l 0.2 mg/l to 10 mg/l 1.5 mg/l to 10 mg/l 0.1 mg/l to 10 mg/l 0.2 mg/l to 10 mg/l	CLS 182 Based on USEPA 340.2

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INAB Classification number (P9)	Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 .01 .07 .99	Waters Waters for potable and domestic purposes Bore waters Other waters <i>Surface waters</i>	Volatile Organic Compounds (VOC) including Trihalomethanes (THM). Detailed breakdown of compounds available see Annex A	Based on USEPA 524.3 Adapted from Purge and Trap to Headspace Injection Documented in-house procedure CLS 183
766 .01 781 .31	Waters Waters for potable and domestic purposes Constituents of the Environment Soils: - Sandy Soils	Aliphatic, Aromatic fractionation including Carbon Banding and mineral oil determination by GC-GC-FID Detailed breakdown of compounds available see Annex B:	Documented in-house method CLS 196

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INAB Classification number (P9)	Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766	Waters	Alkalinity, Bicarbonate and Carbonate	Standard Methods for examination of water and waste water, 22 nd edition, 2012. Documented in-house method CLS 195
.01	Waters for potable and domestic purposes	Alkalinity 10 - 500 mg/l as CaCO ₃	
.99	Other Waters Surface Water	Bicarbonate and Carbonate as CaCO ₃ by calculation	
.07	Bore Waters	Bicarbonate 10 to 500 mg/l as CaCO ₃ Carbonate 10 to 500 mg/l as CaCO ₃	
.71	Sampling of waters	Water sampling of lakes, Rivers and Lagoons for chemistry and microbiological tests using grab, sampling rod, bucket and Van Dorn sub-surface samplers (subsequent analysis by ISO 17025 accredited Laboratory)	CLS WI 135 ISO5667-4:1987 ISO5667-6:2014

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INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 .01 Waters Waters for potable and domestic purposes	Anions (Fluoride, Chloride, Nitrite, Bromide, Nitrate, Sulphate, Phosphate and TON) by Ion Chromatography (IC) Fluoride 0.2 - 3.5 mg/l Chloride 0.1 - 3.5 mg/l Nitrite 0.2 - 3.5mg/l as NO ₂ Nitrite 0.06 - 1.06 mg/l as N Bromide 0.1 - 3.5 mg/l Nitrate 0.2 - 3.5 mg/l as NO ₃ Nitrate 0.05 - 0.8 mg/l as N Sulphate 0.1 - 3.5 mg/l Phosphate 0.2 - 3.5 mg/l as PO ₄ Phosphate 0.07 - 1.14 mg/l as P Total Oxidised Nitrogen (TON) 0.11 - 1.86mg/l as N (calculation)	Documented in-house procedure CLS 194 based on USEPA 300.0.2.1 (1993), and Dionex Application Note 154,
766 .99 Waters Other Waters Surface Water .07 Bore Waters	Total extractable Petroleum Hydrocarbons, by GC-FID TPH (>nC5 to C44) 20 - 10,000 µg/l	Based on USEPA 8015B modified. Documented in-house method CLS 193

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Complete Laboratory Solutions

Chemical Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

ANNEX A: Volatile Organic Compounds (VOC) including Trihalomethanes By GC-MS

Type of test/properties measured	INAB Classification number (P9) Materials/products tested and Range of Measurement			Standard specifications Equipment/ techniques used
Compounds	766 Waters .01 Waters for potable and domestic purposes	766 Waters .99 Other waters <i>Surface waters</i>	766 Waters .07 Bore waters	Based on USEPA 524.3 Adapted from Purge and Trap to Headspace Injection Documented in-house procedure CLS 183
Trichloromethane (chloroform)	1-50 µg/l	1-50 µg/l	2-50 µg/l	
bromodichloromethane	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
dibromochloromethane	0.1-50 µg/l	0.5-50 µg/l	2-50 µg/l	
Tribromomethane (bromoform)	0.1-50 µg/l	0.5-50 µg/l	2-50 µg/l	
1,2-dichloroethane	0.1-50 µg/l	0.5-50 µg/l	0.2-50 µg/l	
benzene	0.1-50 µg/l	0.1-50 µg/l	2-50 µg/l	
trichloroethene	0.1-50 µg/l	0.1-50 µg/l	2-50 µg/l	
tetrachloroethene	0.1-50 µg/l	0.1-50 µg/l	0.5-50 µg/l	
Vinyl chloride	0.1-50 µg/l	0.1-50 µg/l	0.5-50 µg/l	
Chlorodifluoromethane (CFC-22)	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
Dichlorodifluoromethane (CFC-12)	0.5-50 µg/l	0.5-50 µg/l	1-50 µg/l	
1,3-butadiene	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
Bromomethane (methyl bromide)	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	
Trichlorofluoromethane (CFC-11)	0.5-50 µg/l	0.5-50 µg/l	1-50 µg/l	
Diethyl ether (ethyl ether)	1-50 µg/l	1-50 µg/l	2-50 µg/l	
1,1-dichloroethene	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
Iodomethane (methyl iodide)	0.1-50 µg/l	0.1-50 µg/l	4-50 µg/l	
Methyl acetate	5-50 µg/l	N/A	N/A	
Carbon disulfide	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
Trans-1,2-dichloroethene	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	

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Chemical Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

ANNEX A: Volatile Organic Compounds (VOC) including Trihalomethanes By GC-MS

Type of test/properties measured	INAB Classification number (P9) Materials/products tested and Range of Measurement			Standard specifications Equipment/ techniques used
Compounds	766 Waters .01 Waters for potable and domestic purposes	766 Waters .99 Other waters <i>Surface waters</i>	766 Waters .07 Bore waters	Based on USEPA 524.3 Adapted from Purge and Trap to Headspace Injection Documented in-house procedure CLS 183
Methyl tert-butyl ether (MTBE)	2-50 µg/l	2-50 µg/l	2-50 µg/l	
1,1-dichloroethane	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
Diisopropyl ether (DIPE)	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
Cis-1,2-dichloroethene	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
bromochloromethane	0.5-50 µg/l	2-50 µg/l	0.2-50 µg/l	
Ethyl tert-butyl ether (ETBE)	0.5-50 µg/l	0.5-50 µg/l	1-50 µg/l	
tetrahydrofuran	5-50 µg/l	5-50 µg/l	2-50 µg/l	
1,1,1-trichloroethane	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
1-chlorobutane (n-butyl chloride)	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
1,1-dichloropropene	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
Carbontetrachloride (tetrachloromethane)	0.5-50 µg/l	0.5-50 µg/l	0.5-50 µg/l	
Tert-amyl methyl ether (TAME)	1-50 µg/l	1-50 µg/l	0.2-50 µg/l	
dibromomethane	N/A	N/A	2-50 µg/l	
1,2-dichloropropane	0.5-50 µg/l	0.5-50 µg/l	1-50 µg/l	
Tert-amyl ethyl ether (TAEE)	5-50 µg/l	5-50 µg/l	1-50 µg/l	

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Chemical Testing Laboratory, Ros Muc

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Category A

ANNEX A: Volatile Organic Compounds (VOC) including Trihalomethanes By GC-MS

Type of test/properties measured	INAB Classification number (P9) Materials/products tested and Range of Measurement			Standard specifications Equipment/ techniques used
Compounds	766 Waters .01 Waters for potable and domestic purposes	766 Waters .99 Other waters <i>Surface waters</i>	766 Waters .07 Bore waters	Based on USEPA 524.3 Adapted from Purge and Trap to Headspace Injection Documented in-house procedure CLS 183
Cis-1,3-dichloropropene	1-50 µg/l	N/A	0.5-50 µg/l	
Trans-1,3-dichloropropene	1-50 µg/l	N/A	N/A	
1,1,2-trichloroethane	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
toluene	2-50 µg/l	2-50 µg/l	2-50 µg/l	
1,3-dichloropropane	0.1-50 µg/l	0.5-50 µg/l	1-50 µg/l	
1,2-dibromoethane (EDB)	0.1-50 µg/l	0.1-50 µg/l	4-50 µg/l	
1,1,1,2-tetrachloroethane	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
ethylbenzene	2-50 µg/l	2-50 µg/l	0.5-50 µg/l	
m/p-xylene	4-60 µg/l	4-60 µg/l	4 to 60 µg/l	
styrene	2-50 µg/l	2-50 µg/l	2-50 µg/l	
1,1,2,2-tetrachloroethane	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	
o-xylene	2-50 µg/l	2-50 µg/l	2-50 µg/l	
1,2,3-trichloropropane	0.5-50 µg/l	0.5-50 µg/l	1-50 µg/l	
bromobenzene	1-50 µg/l	1-50 µg/l	2-50 µg/l	
n-propylbenzene	1-50 µg/l	1-50 µg/l	4-50 µg/l	
2-chlorotoluene	1-50 µg/l	1-50 µg/l	4-50 µg/l	
4-chlorotoluene	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	
pentachloroethane	0.5-50 µg/l	2-50 µg/l	4-50 µg/l	

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ANNEX A: Volatile Organic Compounds (VOC) including Trihalomethanes By GC-MS

Type of test/properties measured	INAB Classification number (P9) Materials/products tested and Range of Measurement			Standard specifications Equipment/ techniques used
Compounds	766 Waters .01 Waters for potable and domestic purposes	766 Waters .99 Other waters <i>Surface waters</i>	766 Waters .07 Bore waters	Based on USEPA 524.3 Adapted from Purge and Trap to Headspace Injection Documented in-house procedure CLS 183
1,3,5-trimethylbenzene (mesitylene)	2-50 µg/l	2-50 µg/l	4-50 µg/l	
Tert-butylbenzene	1-50 µg/l	1-50 µg/l	4-50 µg/l	
1,2,4-trimethylbenzene (pseudocumene)	2-50 µg/l	2-50 µg/l	4-50 µg/l	
4-isopropyltoluene (p-cymene)	1-50 µg/l	1-50 µg/l	1-50 µg/l	
1,2-dichlorobenzene	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	
n-butylbenzene	2-50 µg/l	2-50 µg/l	4-50 µg/l	
hexachloroethane	0.5-50 µg/l	0.5-50 µg/l	N/A	
1,2,4-trichlorobenzene	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	
naphthalene	1-50 µg/l	1-50 µg/l	4-50 µg/l	
hexachlorobutadiene	0.5-50 µg/l	0.5-50 µg/l	2-50 µg/l	
1,2,3-trichlorobenzene	0.5-50 µg/l	0.5-50 µg/l	4-50 µg/l	

Scope of Accreditation



Complete Laboratory Solutions

Chemical Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

ANNEX B: Aliphatic, Aromatic fractionation including Carbon Banding and mineral oil determination by GC-GC-FID

Type of test/properties measured	INAB Classification number (P9) Materials/products tested and Range of Measurement			Standard specifications Equipment/ techniques used
Compounds	766 Waters .01 Waters for potable and domestic purposes	781 Constituents of the Environment .31 Soils: - Sandy Soils	766 Waters .99 Other waters - Surface waters	Documented in-house method CLS 196
Aliphatics nC ₈ -nC ₁₀	5 to 50 µg/l	1 to 10 mg/Kg	10 to 50 µg/l	
Aliphatics >nC ₁₀ -C ₁₂	4 to 50 µg/l	1 to 10 mg/Kg	10 to 50 µg/l	
Aliphatics >nC ₁₂ -nC ₁₆	6 to 100 µg/l	0.5 to 20 mg/Kg	6 to 100 µg/l	
Aliphatics >nC ₁₆ -nC ₂₁	4 to 200 µg/l	3 to 30 mg/Kg	6 to 150 µg/l	
Aliphatics >nC ₂₁ to nC ₃₅	35 to 350 µg/l	3.5 to 70 mg/Kg	21 to 350 µg/l	
Aliphatics >nC ₃₅ -nC ₄	12 to 150 µg/l	3 to 30 mg/Kg	12 to 150 µg/l	
Aromatics C ₈ to C ₁₀	N/A	2 to 40 mg/Kg	N/A	
Aromatics >C ₁₀ -C ₁₂	10 to 100 µg/l	2 to 20 mg/Kg	20 to 100 µg/l	
Aromatics >C ₁₂ -C ₁₆	6 to 100 µg/l	2 to 20 mg/Kg	8 to 100 µg/l	
Aromatics >C ₁₆ -C ₂₁	8 to 200 µg/l	2 to 40 mg/Kg	8 to 200 µg/l	
Aromatics >C ₂₁ -C ₃₅	20 to 250 µg/l	5 to 50 mg/Kg	20 to 250 µg/l	
Aromatics >C ₃₅ -C ₄₄	9 to 150 µg/l	3 to 30 mg/Kg	12 to 150 µg/l	
Total Aliphatics nC ₈ to nC ₄₄ (mineral oil)	63 to 825 µg/l	12 to 170 mg/Kg	65 to 850 µg/l	
Total Aromatics C ₈ to C ₄₄	69 to 1000 µg/l	16 to 200 mg/Kg	68 to 800 µg/l	
Total Aliphatics and Aromatics C ₈ to C ₄₄	132 to 1825 µg/l	28 to 370 mg/Kg	133 to 1650 µg/l	

Scope of Accreditation



Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
870 Waters		Documented in-house method:
.11 Bacteriological condition of potable water	Enumeration of micro-organisms - Colony count technique at 22°C, 30°C and 37°C in water	CLS 95, based on The Microbiology of Drinking Water (2012) Part 7 - Methods for the enumeration of heterotrophic bacteria by pour plate and spread techniques
.12 Bacteriological condition of industrial water	Enumeration of <i>Pseudomonas aeruginosa</i>	CLS 44 based on The Microbiology of Drinking Water (2010) Part 8
818 Micro Tests for Factory hygiene purposes	Enumeration of total coliforms at & <i>E. coli</i>	CLS 16, Membrane filtration, based on The Microbiology of Drinking Water (2009). Part 4 (a) - Methods for examination of water & associated materials.
.03 Water	Enumeration of total coliforms at & <i>E. coli</i>	CLS 33, based on The Microbiology of Drinking water (2009) part 4 (d) - (Colilert)
	Detection of Salmonella	CLS 45, based on The Microbiology of Drinking Water (2006). Part 9 - Isolation of salmonella.
	Enumeration of Enterococci	CLS 42, based on The Microbiology of Drinking Water (2012). Part 5 (a) - Methods for examination of water and associated materials.
	Enumeration of Sulphite Reducing Clostridia and <i>Clostridium perfringens</i>	CLS 43, based on The Microbiology of Drinking Water (2010). Part 6 (b) - Methods for examination of water & associated materials.

Scope of Accreditation



Permanent Laboratory:
Category A

Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
870 Waters including effluents .16 Bacteriological condition of environmental waters	Enumeration of <i>Enterococci</i> in water.	CLS 42 based on Microbiology of Drinking Water 2012 Part 5 (a)
870 Waters including effluents .16 Bacteriological condition of environmental waters	Enumeration of <i>Clostridium perfringens</i> in water.	CLS 43 based on Microbiology of Drinking Water 2010 Part 6 (b)
870 Waters including effluents .16 Bacteriological condition of environmental waters	Enumeration of Total <i>Coliforms</i> and <i>E.coli</i> in water.	CLS 16 based on Microbiology of Drinking Water 2009 Part 4 (a)

Scope of Accreditation



Permanent Laboratory:
Category A

Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
870 Waters including effluents .11 Bacteriological condition of potable waters .12 Bacteriological condition of industrial waters (treated, recirculating)	Detection and Enumeration of <i>Legionella</i> species in water and the detection of <i>Legionella pneumophila</i> , Serogroups 1 and 2-14 and presumptive <i>Legionella spp</i> (not <i>Legionella pneumophila</i> 1-14).	Documented in-house method: CLS 100 based on ISO 11731 :1998
818 Microbiological tests for factory hygiene purposes .03 Water		
870 Waters including effluents .11 Bacteriological condition of potable waters .12 Bacteriological condition of industrial waters (treated, recirculating) .15 Bacteriological condition of swimming pools and spas	Detection and Enumeration of <i>Legionella</i> species in water and the detection of <i>Legionella pneumophila</i> , Serogroups 1 and 2-14 and presumptive <i>Legionella spp</i> (not <i>Legionella pneumophila</i> 1-14).	CLS 101 based on ISO 11731-2:2004 (waters with low bacterial counts)

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
865 Aquatic Biology <i>(Potable and environmental including surface waters, lakes, rivers and natural waters)</i> .42 Enumeration of free-living protozoa	Detection and enumeration of <i>Cryptosporidium</i> oocysts	Documented in-house method: CLS 139 based on US EPA 1623.1:2012
870 Waters including effluents .16 Bacteriological condition of environmental waters .11 Bacteriological condition of potable water	Enumeration of Faecal coliforms (Thermotolerant coliforms) in water	CLS 16 based on the Microbiology of Drinking Water Part 4 (a) 2009 and The Microbiology of Recreational and Environmental Waters 2000 (faecal coliforms)
.11 Bacteriological condition of potable water	Membrane filtration method using Chromocult agar	CLS 199 based on ISO 9308-1:2014 Detection and Enumeration of Total <i>Coliforms</i> and <i>E.coli</i> in water with low bacterial flora

Scope of Accreditation



Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
818 Micro Tests for factory hygiene purposes .01 Surfaces	Enumeration of micro-organisms at 30° C for 48 hrs	Documented in-house method: CLS 15 based on ISEN ISO 4833-1:2013 Or CLS 46, ISO 4833 - 2: 2013 Cor 1:2014
	Enumeration of <i>Staphylococcus aureus</i>	CLS 3, based on IS EN ISO 6888-1 1999 Amd 1 2003
	Detection of Salmonella	CLS 2, based on ISO 6579:2002 amd 1 2007
	Detection of <i>Listeria monocytogenes</i>	CLS 4, based on IS EN ISO 11290-1:1996/A1:2004
	Detection of <i>Listeria monocytogenes</i> by ALOA One Day method	CLS 163, based on AES ALOA One Day (AFNOR Cert: AES 10/03-09/00)
	Detection of <i>Listeria species</i> by ALOA One Day method	CLS 164 based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)
	Enumeration of total coliforms	CLS 8, based on ISO 4832:2006
	Enumeration of <i>E.coli</i>	CLS 9, based on ISO 16649-1:2001

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
818 Micro Tests for factory hygiene purposes		Documented in-house method:
.01 Surfaces	Enumeration of Enterobacteriaceae	CLS 21, based on ISO 21528-2:2004
	Enumeration of TVCs (Contact Plate)	CLS 80, based on ISO 18593:2004
	Enumeration of Yeast and Mould	CLS 1 based on ISO 21527-1 and 2:2008
	Enumeration of TVC at 22, 30 37C by pour and spread plates by single plate	CLS 132, CLS 133 (In house methods)
	Detection of E Coli 0157	CLS 11 based on ISO16654:2001 CLS 159 based on reveal for E.Coli 0157 20 hour system.
	Enumeration of Listeria species including <i>L. monocytogens</i>	CLS 6 Based on IS EN ISO 11290-2:1998/A1:2004

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
818 Micro Tests for Factory Hygiene purposes		
.02 Air	Enumeration of TVCs (Air Settlement Plate)	CLS 82 (In-house method)
	Enumeration of yeast and moulds	CLS 130 (In-house method)

811 Micro Biological Tests on Foods		Documented in-house method:
.01 Dairy Products	Enumeration of micro-organisms at 30° C	CLS 15 (Pour Plate) based on IS EN ISO 4833-1:2013 Or CLS 46 (Spread plate), based on
.03 Meat and meat products, game and poultry	Enumeration of micro-organisms at 37° C	ISO 4833-2 2013 Cor 1 2014 CLS 50 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 49 (Spread plate), based on
.02 Eggs and egg products		ISO 4833-2:013, cor 1 2014
.15 Confectionery	Enumeration of micro-organisms at 22° C	CLS 47 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 48 (Spread plate) based on
.08 Fruit and vegetables		ISO 4833-2, 2013, cor 1 2014
.23 Animal Feeds		
.22 Pet Foods	Enumeration of <i>Staphylococcus aureus</i>	CLS 3, based on IS EN IS 6888-1: 1999 Amd 2003

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Micro Biological Tests on Foods		
.01 Dairy Products	Detection of Salmonella (Primary production samples included as per amd 1:2007	CLS 2 based on ISO 6579:2002 amd 1:2007
.03 Meat and meat products, game and poultry	Enumeration of Enterobacteriaceae	CLS 21, based on ISO 21528-2:2004
.02 Eggs and egg products	Detection of Listeria monocytogenes	CLS 4, based on IS EN ISO 11290 1:1996/A1:2004
.07 Cereals and Bakery Products	Detection of Listeria monocytogenes by ALOA One Day method (not .23 and .22	CLS 163, based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)
.15 Confectionary	Detection of Listeria species by ALOA One Day method (not .23 and .22)	CLS 164 based on AES ALOA One Day (AFNOR Cert AES 10/03-09/00)
.23 Animal Feeds	Enumeration of E.coli	CLS 9, based on ISO 16649-1:2001
.22 Pet Foods	Enumeration of Clostridium perfringens	CLS 7, based on ISO 7937:2004

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Micro Biological Tests on Foods		Documented in-house method:
.01 Dairy Products		
.03 Meat and meat products, game and poultry	Enumeration of <i>Presumptive Bacillus cereus</i>	CLS 20 based in ISEN ISO 7932: 2004
.02 Eggs and egg products	Enumeration of Presumptive <i>Pseudomonas spp.</i> (for 811.03 only)	CLS 22 Based on ISO13720:2010
.07 Cereals and Bakery products		
.15 Confectionary		
.08 Fruit and vegetables	Enumeration of <i>total coliforms</i>	CLS 8, based on ISO 4832:2006
.23 Animal Feeds		
.22 Pet Foods		

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Micro Biological Tests on Foods .04 Fish Shellfish and Molluscs	Enumeration of micro-organisms at 30°C	CLS 15 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 46 (Spread plate), based on ISO 4833-2:2013 cor 1 2014
	Enumeration off micro-organisms at 37°C	CLS 50 (Pour Plate), based on IS EN ISO 4833-1:2013 Or CLS 49 (Spread plate), based on ISO 4833-2:2013 cor 2014
	Enumeration of micro-organisms at 22°C	CLS 47 (pour plate), based on IS EN ISO 4833 - 1:2013 Or CLS 48 (Spread plate), based on ISO4833-2:2013 cor 2014
	Enumeration of <i>Coagulase Positive Staphylococci</i>	CLS 3, based on IS EN ISO 6888-1 1999 Amd 1 2003
	Detection of Salmonella	CLS 2, based on ISO 6579:2002, Amid 1:2007
	Enumeration of Enterobacteriaceae	CLS 21, based on ISO 21528-2:2004

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Micro Biological Tests on Foods		
.04 Fish Shellfish and Molluscs	Detection of Listeria monocytogenes	CLS 4, based on IS EN ISO 11290 1:1996/A1:2004
	Detection of Listeria monocytogenes by ALOA One Day method	CLS 163, based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)
	Detection of Listeria species by ALOA One Day method	CLS 164 based on AES ALOA One Day (AFNOR Cert AES 10/03-09/00)
	Enumeration of Listeria Species including L. monocytogenes	CLS 6 based on IS EN ISO 11290-2:1998/A1:2004
	Enumeration of Clostridium perfringens	CLS 7, based on ISO 7937:2004
	Enumeration of total coliforms	CLS 8, based on ISO 4832:2006
	Enumeration of E.coli using a MPN method (5 tubes, 3 dilutions)	CLS 92 Based on Cefas Protocol Issue 12, 2016 Enumeration of E.coli in Molluscan Bivalve Shellfish, and ISO 16649-3 2015

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Micro Biological Tests on Foods		Documented in-house method:
.10 Non-alcoholic beverages	Enumeration of micro-organisms at 30° C	CLS 15 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 46 (Spread plate), based on ISO 4833-2:2013 Cor 1:2014
	Enumeration of micro-organisms at 37° C	CLS 50 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 49 (Spread plate), based on ISO 4833-2:2013 Cor 1:2014
	Enumeration of micro-organisms at 22° C	CLS 47 (Pour plate), based on IS EN ISO 4833-1:2013 Or CLS 48 (Spread plate), based on ISO 4833-2:2013 Cor 1:2014
	Enumeration of <i>Clostridium perfringens</i>	CLS 7, based on ISO 7937:2004
	Enumeration of Presumptive <i>Pseudomonas</i> spp	CLS 22, based on ISO 13720:2010

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<p>817 Testing of Surfaces in abattoirs</p> <p>.01 Meat surfaces</p> <p>.02 Product contact <i>Surfaces</i></p>	<p>Enumeration of micro-organisms at 30 °C</p> <p>Enumeration of Enterobacteriaceae</p> <p>Detection of Salmonella</p> <p>Detection of Listeria monocytogenes by ALOA One Day method</p> <p>Detection of Listeria species by ALOA One Day method</p>	<p>CLS 15, based on IS EN ISO 4833-1:2013</p> <p>CLS 21, based on ISO 21528-2:2004</p> <p>CLS 2, based on ISO 6579:2002, Amd 1:2007</p> <p>CLS 163 based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)</p> <p>CLS 164 based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)</p>

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological tests on foods		
.01 Dairy Products	Enumeration of TVC @ 22,30, 37°C by pour and spread plates by single plate	CLS 132, CLS 133 (In-house methods)
.02 Eggs and egg products		
.03 Meat and meat products, game and poultry		
.04 Fish, shellfish and molluscs	Enumeration of	CLS 134 (In-house method)
.08 Fruit and vegetables	Enterobacteriaceae by single plate (Except 811.10 & 811.11)	
.10 Non-alcoholic beverages		
.22 Pet Foods		
.23 Animal Feeds	Detection of Salmonella (Except 818.01, 811.04)	CLS 131 based on Bioline Optima Elisa

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological tests on foods .01 Dairy Products .07 Cereals and bakery products .08 Fruit and vegetables .10 Non-alcoholic beverages Prepared dishes .17	Enumeration of Yeast and Mould	CLS 1 based on 21527-1 and 2:2008
811 Microbiological tests on foods .01 Dairy Products .03 Meat and meat products, game and poultry .06 Soups, broths and sauces .07 Cereals and bakery products .17 Prepared dishes	Detection of E. coli 0157 Detection of Listeria monocytogenes by ALOA One Day method Detection of Listeria species by ALOA One Day method	CLS 11 based on ISO 16654:2001 CLS159 based on reveal for E. Coli 0157 20 hour system CLS 163 based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00) CLS 164 based on AES ALOA One Day (AFNOR cert: AES 10/03-09/00)

Scope of Accreditation



Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological tests on foods		
.01 Dairy Products	Detection of Campylobacter spp	CLS 181 based on ISO10272-1:2006
.02 Eggs and egg products		
.03 Meat,meat products, game and poultry		
.04 Fish and shellfish		
.06 Soups, broths and sauces		
.07 Cereals and bakery products		
.08 Fruit and Vegetables		
.15 Confectionary		
.17 Prepared Plates		
818 Microbiological Tests for Factory Hygiene Purposes		
.01 Surfaces		

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological tests on foods		
.01 Dairy Products	Detection of Enterobacter sakazakii	CLS 172 based on ISO/TS 22964-1:2006
.18 Foodstuffs intended for special nutritional use		

811 Microbiological tests on Foods		
.01 Dairy Products	Enumeration of Listeria Species including L. monocytogenes	CLS 6 Based on IS EN ISO 11290-2:1998/A1:2004
.02 Eggs and egg products		
.03 Meat and meat products, game and poultry		
.07 Cereals and Bakery Products		
.08 Fruit and Vegetables		
.15 Confectionary		

Scope of Accreditation



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Biological Testing Laboratory, Ros Muc

Permanent Laboratory:

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological Tests on Foods .07 Cereals and Bakery Products	Enumeration of micro-organisms at 30°C Enumeration of <i>Coagulase positive staphylococci</i>	Documented In-House method: CLS15 (Pour Plate) based on IS EN ISO 4833-1:2013 CLS 3 based on IS EN ISO 6888-1:1999 Amd 1:2003

Scope of Accreditation



Complete Laboratory Solutions

Biological Testing Laboratory, Ros Muc

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological Tests on Foods	Enumeration of micro-organisms at 30°C	Documented In-House method: CLS15 (Pour Plate) based on IS EN ISO 4833:-1:2013
.06 Soups Broths and Sauces	Enumeration of Staphylococcus aureus	CLS 3 based on IS EN ISO 6888-1:1999 Amd 1 2003
.17 Prepared Dishes	Enumeration of Enterobacteriaceae	CLS 21 based on ISO 21528-2:2004
	Detection of Salmonella	CLS2 based on ISO 6579:2002, Amd 1:2007
	Enumeration of Bacillus cereus	CLS 20 based on IS EN ISO 7932:2004
	Enumeration of E.coli	CLS 9 based on ISO 11649-1:2001
	Detection of Listeria monocytogenes	CLS 4 based on IS EN ISO 11290-1:1996/A1:2004
	Enumeration of Listeria species including L.monocytogenes	CLS 6 based on IS EN ISO 11290-2:1998/A1:2004

Scope of Accreditation



Complete Laboratory Solutions

Biological Testing Laboratory, MedPharma Department, Unit 3, IDA Enterprise Park, Tuam Road, Galway

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
870 Waters		
.11 Bacteriological condition of potable water	Enumeration of micro-organisms - Colony count technique at 22°C and 37°C in water	Documented in-house method: CLS 95, based on The Microbiology of Drinking Water (2012) Part 7 - Methods for the enumeration of heterotrophic bacteria by pour plate and spread techniques
.12 Bacteriological condition of industrial water		
.16 Bacteriological condition of environmental waters	Enumeration of Pseudomonas aeruginosa	CLS 44, based on The Microbiology of Drinking Water (2010) Part 8 (b)
818 Microbiological tests for Factory Hygiene purposes		
.03 Water	Enumeration of Total Viable Counts at 22°C, 35°C and 37°C (for category .12 only, industrial waters only)	CLS 160 fluid monitoring membrane filtration based on ISO 13959:2014 Water for Haemodialysis, USP 1230 Water for Haemodialysis

Scope of Accreditation



Complete Laboratory Solutions

**Biological Testing Laboratory, MedPharma
Department, Unit 3, IDA Enterprise Park,
Tuam Road, Galway**

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
818 .03 Microbiological tests for Factory Hygiene purposes Water	Enumeration of total coliforms and E.Coli	CLS 33 Colilert Idexx Quanti Tray method, based on The Microbiology of Drinking water (2009) part 4 -
870 .11 Waters Bacteriological condition of potable water	Enumeration of Enterococci	CLS 16 Membrane filtration based on Microbiology of Drinking water (2009) part 4 (a). CLS 42, based on
.12 Bacteriological condition of industrial water		The Microbiology of Drinking Water (2012). Part 5 (a) - Methods for examination of water and associated materials.
.16 Bacteriological condition of environmental waters	Enumeration of sulphite reducing Clostridia and Clostridium Perfringens	CLS 43, based on The Microbiology of Drinking Water (2010). Part 6 (b) - Methods for examination of water & associated materials.

Scope of Accreditation



Complete Laboratory Solutions

**Biological Testing Laboratory, MedPharma
Department, Unit 3, IDA Enterprise Park,
Tuam Road, Galway**

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
870 Waters .12 Bacteriological condition of industrial water	Enumeration of Total Viable Counts @30°C using membrane filtration	CLS 171 Based on: ISO 15883-1:2006 Washer Disinfectors - Part 1 and ISO 15883-4:2008 Washer Disinfectors - Part 4
818 Microbiological Test for Factory Hygiene Purposes .01 Surfaces .02 Air	Incubation and Enumeration of TSA Plates at 32.5°C Incubation and Enumeration of SDA Plates at 22.5°C Dual Incubation and Enumeration of TSA Plates	In- house method: CLS 188 In- house method: CLS 187 In- house method: CLS 190

Scope of Accreditation



Complete Laboratory Solutions

**Biological Testing Laboratory, MedPharma
Department, Unit 3, IDA Enterprise Park,
Tuam Road, Galway**

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
801 Tests on human pharmaceutical and biological products		
.10 Endotoxin Tests	Endotoxin Testing of Purified Water using Gel Clot Method	In-house method: CLS185 Based on: ANSI/AAMI ST 72:2011 Bacterial Endotoxin test methodologies, routine monitoring and alternatives to batch testing
	Endotoxin Testing of Purified Water, Renal Water & Endoscopy Water using Kinetic Turbidimetric Method	In-house method: CLS186 Based on: ANSI/AAMI ST 72:2011 Bacterial Endotoxin test methodologies, routine monitoring and alternatives to batch testing

Scope of Accreditation



Complete Laboratory Solutions

**Biological Testing Laboratory, MedPharma
Department, Unit 3, IDA Enterprise Park,
Tuam Road, Galway**

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological Tests on Foods		Documented In-House method:
.01 Dairy products	Enumeration of β -glucuronidase positive <i>E. coli</i> : Colony count technique at 44°C using 5-bromo-4-chloro-3-indolyl β -D-glucuronide	CLS198 (Pour Plate Method using TBX) based on : ISO 16649-2 2001
.02 Egg and egg products		
.03 Meat and meat products, game and poultry		
Fish, shellfish and molluscs		
.06 Soups, broths and sauces		
.07 Cereals and bakery products		
.08 Fruit and vegetables		
.15 Confectionery		
.17 Prepared dishes		
.23 Animal feeds		

Scope of Accreditation



Complete Laboratory Solutions

**Biological Testing Laboratory, MedPharma
Department, Unit 3, IDA Enterprise Park,
Tuam Road, Galway**

Permanent Laboratory:
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
811 Microbiological Tests on Foods		Documented In-House method:
.03 Meat and meat products, game and poultry	Enumeration of Campylobacter species in Food Products and Environmental Swabs	CLS197 (Enumeration method using CCDA agar) based on ISO/TS10272- 2:2006
818 Microbiological Test for Factory Hygiene Purposes		
Surfaces .01		