

# Accreditation Certificate

## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS

33 Eastgate Drive, Little Island, Cork

Testing Laboratory

Registration number: 166T

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 2<sup>nd</sup> Edition  
*“General Requirements for the Competence of Testing and Calibration Laboratories”*  
*(This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)*

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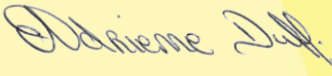
Date of award of accreditation: 04:07:2005

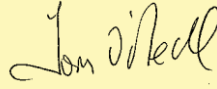
Date of last renewal of accreditation: 23:06:2015

Expiry date of this certificate of accreditation: 23:06:2020

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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 23 June 2015

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

## ADVANCED MICRO SERVICES & ENVIRONMENTAL LABORATORIES LTD (TRADING AS) ALS

### Chemical / Biological Laboratory

*Biological Testing:*

**Initial Registration Date :** 4-July-2005

*Chemistry Testing:*

**Initial Registration Date :** 16-September-2009

*Postal Address:* Carrigeen Business Park

*(Address of other locations* Clonmel

*as they apply)* Co. Tipperary

*Telephone:* +353 (052) 6178100

*Fax:* +353 (052) 6178133

*E-mail:* margaret.buggy@alsglobal.com

*Contact Name:* Ms Margaret Buggy

*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
- (a) portable test equipment
  - (b) a site laboratory
  - (c) a mobile laboratory or
  - (d) 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



**Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory**

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><b>751 Foods</b></p> <p><b>.03 Meats &amp; meat products, game &amp; poultry</b></p>	<p>Determination of Nitrates (5-200 mg/kg NO<sub>3</sub>, equivalent to 7-275 mg/kg NaNO<sub>3</sub>) &amp; Nitrites (5 to 200 mg/kg NO<sub>2</sub>, equivalent to 7.5-300 mg/kg as NaNO<sub>2</sub>) by IC</p> <p>Determination of Salt by IC (0.5-7.5% NaCl)</p>	<p>SP118 based on Dionex Application Note 112, 1998, ISO 2918 (1975) and ISO 3091 (1975)</p> <p>SP117 based on ISO 1841 (1996) and Dionex Application Note 112, 1998</p>

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>751 Foods</b>		
.01 Dairy products - Cheese	Determination of Salt by Titration (1 to 10% NaCl)	SP091 based on ISO 1841-1 (1996)
.03 Meats & meat products, game & poultry		
.04 Fish, shellfish and molluscs		
.01 Dairy products - Cheese	Sodium 0.004 to 4.0% Na	SP198 - Model 410 Classic Flame Photometer Operator Manual, Issue 1, October 2006.
.03 Meats & meat products		
.04 Fish, shellfish & molluscs	Salt 0.01 to 10.0% Salt	SP198 By Calculation from Sodium
.07 Cereals and bakery products		

# Scope of Accreditation



**Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory**

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
751 Foods .03 Meats & meat products .04 Fish, shellfish & molluscs	Fat in Meat Range: 3 to 25% Fat	SP192 (NMR) Analyser Based on CEM Smart Trac Operation Manual, Rev. 2, 2001. Keeton Et AL.: "Rapid Determination of Moisture and Fat in Meats by Microwave and Nuclear Magnetic Resonance Analysis", Journal of AOAC International, Vol. 86, No.6, 2003

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>751 Foods</b>		
.01 Dairy products - Cheese	Moisture and Total Solids 3.0 to 99.0g/100g	SP148 based on BS 4401-3 1997, ISO1442:1997
.03 Meat and meat products, game and poultry		Pearsons, Composition and Analysis of Foods 9th Edition 1991, pages 383, 566 & 600.
.04 Fish, shellfish and molluscs		AOAC 19th Edition - Methods of Analysis, 39.1.02-B.
.07 Cereal & bakery products		
.08 Fruit & Vegetables		
.09 Herbs & spices		
.13 Ices & Desserts		
.14 Cocoa & Cocoa preparations, Coffee & Tea		
.15 Confectionary		
.16 Nuts & nut products, snacks		
.17 Prepared dishes		

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>751 Foods</b>		
.03 Meats & meat products, game & poultry	Ash 0.1 to 15g/100g	SP149 based on BS4401 Part 1 1998, ISO 936: 1998
.04 Fish, shellfish & molluscs		AOAC 19th Edition - Methods of Analysis 32.1.05
.06 Soups, broths & sauces		
.07 Cereal & bakery products		
.08 Fruit & Vegetables		
.09 Herbs & spices		
.13 Ices & Desserts		
.14 Cocoa & Cocoa preparations, Coffee & Tea		
.15 Confectionary		
.16 Nuts & nut products, snacks		
.17 Prepared dishes □		



# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b> .01 Waters for potable and domestic purposes .05 Trade Waters	BOD and CBOD (Nitrification suppressed BOD) Range: 1.0 to 10,000 mg/L O <sub>2</sub>  Total Suspended Solids Range: 5 - 15,000 mg/L  Chemical Oxygen Demand Range: 5 - 15,000 mg/L O <sub>2</sub>  Total Hardness Range: 5.0 - 1000 mg/L CaCO <sub>3</sub>  Alkalinity Range: 10.0 - 500.0 mg/L CaCO <sub>3</sub>	SOP P280 (DO Meter) based on "Methods for the Examination of Waters and Associated Materials", HMSO 1988 5 Day BOD 11 7522120, "APHA 22nd edition 2012, Standard Methods for the Analysis of Water and Wastewater 5210 and 4500-C" and HACH HQ Series Portable meters user manual.  P202 Gravimetric Method based on APHA 2012 2540-D  P210 Spectrophotometer method based on APHA 2012 5220-D  P213 Titrimetric Method based on APHA 2012, 2340-C  P214 Titrimetric Method based on APHA 2012, 2320-B

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		
.01 Waters for potable and domestic purposes	pH Range: 4.0 - 10.0	P233 Electrometric Method based on APHA 2012, 4500-H <sup>+</sup> - B
.05 Trade Waters	Sulphate Range: 5.0 - 500 mg/l SO <sub>4</sub>	P243 Turbidimetric Method based on APHA 2012, 4500 - SO <sub>4</sub> <sup>2-</sup> E
	Total Phosphorus Range: 0.1 - 50 mg/l P	P207 Ascorbic Acid Method based on APHA 2012, 4500 - P - E
	Fluoride Range 0.08 to 2.0 mg/Fl	P228 SPADNS method based on Hach Company Standard Method 8029, 2013, 8th Edition

# Scope of Accreditation



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INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		
.01 Waters for potable and domestic purposes	Ammonia Range 0.02 - 80.0 mg/l NH <sub>3</sub> -N	P281 Automated colorimetry based on In-house Method using Gallery Analyser following manufacturers instructions
.04 Sewage	Total Oxidised Nitrogen (TON) Range 0.25 - 100 mg/l	
.05 Trade wastes	Nitrite Range 0.01 - 7.5 mg/l NO <sub>2</sub> N	
.99 Other waters - Surface waters	Nitrate calculated from T.O.N and Nitrite Range 1.0 - 100 mg.l NO <sub>3</sub> N  Chloride Range 4 - 20000 mg/l CL  Orthophosphate Range 0.02 - 40 mg/l as P  Conductivity Range 2 - 6000 µS/cm	P284 Based on APHA , 2012 Method 2510

# Scope of Accreditation



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Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		
.01 Waters for potable and domestic purposes	Total Nitrogen (Hach) Range: 1.0 - 150 mg/l N	P285 Based on Hach Company Standard Method 10071, 2012, 7th Edition
.04 Sewage	Total Kjeldahl Nitrogen (By Calculation) Range 1.0 - 75 mg/l N	
.05 Trade wastes		
.07 Bore holes	Colour Range 2 to 500 Hazen	P237 based on APHA, Method 2120B + C, 22nd Edition, 2012 and "Methods for the Examination of Waters and Associated Materials", Colour and Turbidity of Water 1981"
.99 Other waters - Surface waters	Turbidity Range 0.1 to 500	P239 based on APHA, Method 2130 B, 22nd Edition, 2012

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9)	Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>811</b>	<b>Microbiological Tests on Foods</b>	Aerobic colony count	SP048 based on ISO 4833-1: 2013
.01	Dairy products	Aerobic colony count	SP030 based on ISO 4833-1: 2013
.02	Egg and egg products		
.03	Meat and meat products, game and poultry	Detection and enumeration of Enterobacteriaceae	SP033 based on ISO 21528-2: 2004
.04	Fish, shellfish and molluscs	Enumeration and confirmation of coagulase-positive staphylococci	SP036 based on ISO 6888-1 (1999)
.05	Fats and oils		
.06	Soups, broths and sauces	Confirmation and identification of Listeria Sp	SP181 based on ISO 11290-1 (1996) Amendment 1 (2004) & ISO 11290-2:1998 (Amendment A1:2004)
.07	Cereals and bakery products	Enumeration of Listeria monocytogenes and Listeria Species	SP040 based on ISO 11290-2 (1998) + Amd 1:2004
.08	Fruit and vegetables		
.09	Herbs and spices		
.10	Non-alcoholic beverages	Enumeration of presumptive Bacillus cereus	SP045 based on ISO 7932 (2004)
.13	Ices and desserts		
.14	Cocoa and cocoa preparations, coffee and tea	Enumeration of Pseudomonas spp	SP046 based on ISO 13720 (2010)
.15	Confectionery		
.16	Nuts and nut products, snacks	Enumeration of Yeasts and Moulds - products with water activity greater than 0.95	SP133 based on ISO 21527-1 (2008)
.17	Prepared Dishes		
.18	Foodstuffs intended for special nutritional uses	Enumeration of Yeasts and Moulds - products with water activity less than 0.95	SP136 based on ISO 21527-2 (2008)
.19	Additives		
.22	Pet Foods		
.23	Animal Feeds		

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>811 Microbiological Tests on Foods</b>	Enumeration of total coliforms	SP035 based on ISO 4832 (2006)
.01 Dairy products	Detection of Salmonella spp	SP178/SP038 based on ISO 6579 - Amd 1. (2002)
.02 Egg and egg products		
.03 Meat and meat products, game and poultry		
.04 Fish, shellfish and molluscs		
.05 Fats and oils	Confirmation and identification of Listeria Spp	SP181 based on ISO 11290-1 (1996) Amendment 1 (2004) & ISO 11290-2:1998 (Amendment A1:2004)
.06 Soups, broths and sauces	Detection of Listeria Species	SPO39 based on ISO 11290 -1 (1996) Amendment 1 (2004)
.07 Cereals and bakery products		
.08 Fruit and vegetables	Detection of E.coli O157 using the immunomagnetic separation technique	SP041 based on ISO 16654 (2001)
.09 Herbs and spices		
.10 Non-alcoholic beverages		
.13 Ices and desserts		
.14 Cocoa and cocoa preparations, coffee and tea	Enumeration of presumptive β-glucuronidase positive E. coli - with resuscitation using membranes.	SP049 based on ISO 16449-1 (2001)
.15 Confectionery	Enumeration of presumptive B-glucuronidase- positive E. coli	SP049 based on ISO 16649-2 (2001)
.16 Nut and nut products		
.17 Prepared dishes		
.18 Foodstuffs intended for special nutritional uses	Enumeration of mesophilic lactic acid bacteria	SP068 based on ISO 15214 (1998)
.19 Additives		
.22 Pet Foods	Detection of Listeria Species using the ALOA One Day Method	SP142 based on AES Chemunex ALOA One Day Method for Listeria
.23 Animal Feeds		

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>811 Microbiological Tests on Foods</b>		
.01 Dairy products	Enumeration of <u>Clostridium</u>	SP042 based on ISO 7937 (2004)
.02 Egg and egg products	<u>perfringens</u>	
.03 Meat and meat products		
.04 Fish, shellfish and molluscs	Detection of Salmonella spp by Solus Salmonella ELISA	SP102 based on Solus Salmonella ELISA kit instructions (AFNOR approved)
.05 Fats and oils		
.06 Soups, broths and sauces		
.07 Cereals and bakery products		
.08 Fruit and vegetables		
.09 Herbs and spices	Confirmation and identification of Listeria Spp	SP181 based on ISO 11290-1 (1996) Amendment 1 (2004) & ISO 11290-2:1998 (Amendment A1:2004)
.10 Non-alcoholic beverages		
.13 Ices and desserts		
.14 Cocoa and cocoa preparations, coffee and tea	Detection of Listeria Spp by Solus Listeria ELISA	SP154 based on Solus Listeria ELISA Kit instructions (AFNOR approved)
.15 Confectionery		
.16 Nuts and nut products, snacks		
.17 Prepared dishes		
.18 Foodstuffs intended for special nutritional uses	Method for the Detection of Thermotolerant Campylobacter	SP 043 based on ISO 10272-1:2006
.19 Additives		
.22 Pet foods		
.23 Animal feeds		

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>811 Microbiological Tests on Foods</b>		
.03 Meat and meat products	Detection of presence or absence of Coliforms in food and animal	SP180 based on ISO 4831:2006
.04 Fish, shellfish & molluscs	feedingstuffs	
.01 Dairy products	Enumeration of Anaerobic Microorganisms by colony count technique (Anaerobic Total Viable Count)	SP129 based on M&S Method 1.5 (March 2007) and ISO 4833-1:2013
.02 Egg and egg products		
.03 Meat and meat products, game and poultry		
.06 Soups, broths and sauces		
.08 Fruits and vegetables		
.10 Non-alcoholic beverages		
.12 Alcoholic beverages (other than wine)		
.16 Nuts and nut products, snacks		
.17 Prepared dishes		
.18 Foodstuffs intended for special nutritional uses		
.19 Additives		
.22 Pet Foods		



# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

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 .10 Non-alcoholic beverages	Detection and Enumeration of <u>Pseudomonas aeruginosa</u>	SP084 based on ISO 16266 (2006)
.03 Meat and meat products, game and poultry .09 Herbs and spices .18 Foodstuffs intended for special nutritional uses .19 Additives	Detection of E.coli O157:H7 by Neogen Reveal	SP052 based on Neogen 8 hour Reveal
.21 Others - Mixed foods	Enumeration of Clostridium perfringens	SP042 based on ISO 7937 (2004)
.01 Dairy Products .18 Foodstuffs intended for special nutritional uses	Detection of Cronobacter sakazakii	SP096 based on BAM Chapter 29 2012 and ISO/TS 22964: 2006

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

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		
.12 Alcoholic beverages (other than wine)	Detection of Salmonella spp	SP178/SP038 based on ISO 6579:2002
	Confirmation and identification of Listeria Spp	SP181 based on ISO 11290-1 (1996) Amendment 1 (2004) & ISO 11290-2:1998 (Amendment A1:2004)
	Detection of Listeria Species by ALOA One Day Method	SP142 based on AES Chemunex ALOA One Day Method for Listeria
	Enumeration of Coliforms	SP035 based on ISO 4832:2006
	Enumeration of Enterobacteriaceae	SP033 based on ISO 21528-2:2004
	Aerobic Colony Count	SP030 based on ISO 4833-1:2013
	Enumeration of coagulase-positive staphylococci	SP036 based on ISO 6888-1:1999
	Enumeration of Bacillus cereus	SP045 based on ISO 7932:2004
	Enumeration of Yeasts & Moulds - products with water activity greater than 0.95	SP133 based on ISO 21527-1

# Scope of Accreditation



**Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory**

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		
.03	Meat and meat products, game and poultry	Lactobacillus enumeration	SP177 based on Marks & Spencer Method 3.11 (Mar 2007) and Oxoid Manual
.09	Herbs and spices		
.10	Non-alcoholic beverages		
.13	Ices and desserts		
.14	Cocoa and cocoa preparations, coffee and tea		
.15	Confectionery		
.16	Nuts and nut products, snacks		
.18	Foodstuffs intended for special nutritional uses		
.18	Additives		
.19	Others		
.21	- Raw pastry		
.22	Pet foods		
.23	Animal feeds		
812	Meat and fish species testing	Detection of raw horse meat in beef, pork and lamb LOD 1% w/w Detection of raw pork in beef and lamb LOD 1% w/w Detection of raw beef in pork and lamb LOD 1% w/w Detection of raw lamb in beef and pork LOD 1% w/w	SP190 based on ELISA TEK Protocol 5105*1

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>817</b> <b>Testing of surfaces in abattoirs</b>		
.01    Meat surfaces	Confirmation and identification of <i>Listeria</i> Spp	SP181 based on ISO 11290-1 (1996) Amendment 1 (2004) & ISO 11290-2:1998 (Amendment A1:2004)
.02    Product contact surfaces	Detection of <i>Listeria</i> Species	SP039 based on ISO 11290-1 (1996) Amendment 1 (2004)
<b>818</b> <b>Microbiological tests for factory hygiene purposes</b>		
.01    Surfaces	Enumeration of total coliforms	SP035 based on ISO 4832 (2006)
	Detection of <i>Salmonella</i> spp	SP038 based on ISO 6579 (2002)
	Enumeration of presumptive <i>Bacillus cereus</i>	SP045 based on ISO 7932 (2004)
	Aerobic colony count	SP030 based on ISO 4833 (2013)
	Enumeration of Enterobacteriaceae	SP033 based on ISO 21528-2 (2004)
	Detection of <i>Salmonella</i> by the Solus method	SP 102 based on the Solus <i>Salmonella</i> ELISA OPTIMA method
	Detection of <i>E.coli</i> 0157:H7 by Neogen Reveal	SP 052 based on Neogen 8 hour Reveal

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>817</b> <b>Testing of surface in abattoirs</b> .01     Meat Surfaces .02     Product contact surfaces	Enumeration of presumptive B-gluconidase positive E.coli - with resuscitation using membranes	SP049-B based on ISO 16449-1 (2001)
<b>818</b> <b>Microbiological tests for Factory hygiene purposes Surfaces</b> .01	Detection of Listeria spp by Solus Listeria ELISA  Enumeration of coagulase-positive staphylococci  Detection of Listeria Species using the ALOA One Day Method  Aerobic colony count  Enumeration of Listeria monocytogenes and Listeria Species  Enumeration of Yeasts and Moulds  Enumeration of Pseudomonas spp	SP154 based on Solus Listeria ELISA Kit instructions (AFNOR approved)  SP036 based on ISO 6888-1 (1999), AMD 1: 2003  SP142 based on AES Chemunex ALOA One Day Method for Listeria  SP048 based on ISO 4833-1: 2013  SP040 based on ISO 11290-2 (1998) Amd 1:2004  SP133 based on ISO 21527-1: 2008  SP046 based on ISO 13720 (1995)

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
817 Testing of surface in abattoirs .01 Meat Surfaces .02 Product contact surfaces	Detection of E.coli O157 using the immunomagnetic separation technique	SP041 based on ISO 16654 (2001)
818 Microbiological tests for factory hygiene purposes	Enumeration of B-glucuronidase- positive Escherichia coli	SP049 based on ISO 16649-2 (2001)
.01 Surfaces	Enumeration of mesophilic lactic acid bacteria	SP068 based on ISO 15214 (1998)
	Method for the Detection of Thermotolerant Campylobacter	SP 043 based on ISO 10272-1:2006
	Enumeration of Clostridium perfringens	SP042 based on ISO 7937 (2004)

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested		Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
817	Testing of surface in abattoirs	Enumeration of Coliforms & E.coli in carcass swabs using a USDA compliant method  Method for the analysis of Carcass Swabs for Salmonella using a USDA compliant method	SP101 based on AOAC 998.08  SP097 based on USDA FSIS MLG4.08
.01	Meat Surfaces		
818	Microbiological Tests for Factory Hygiene Purposes	Detection of Cronobacter sakazakii	SP096 based on BAM Chapter 29 2012 and ISO/TS 22964: 2006
.01	Surfaces		
.02	Air	Counting of Air Settle Plates by TVC or Yeasts and Moulds	SP197 based on an In House method

# Scope of Accreditation



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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
<b>870 Waters, including effluents</b>	Enumeration of culturable micro-organisms (22°C for 72hrs, 37°C for 24/48hrs)	SP031 based on ISO 6222- (1999)
.11 Bacteriological condition of potable water	Enumeration of Enterococci	SP071 based on ISO 7899-2 (2000)
.12 Bacteriological conditions of industrial waters (treated, recirculating)	Enumeration of <i>E.coli</i> and Coliforms in Water	SP140 based on Microbiology of Drinking Water Part 4, 2009
.14 Bacteriological condition of Trade wastes	Detection and Enumeration of <i>Escherichia coli</i> and Coliform bacteria- Membrane Filtration method	SP185 based on ISO 9308-1:2000 (Cor 2007)
.15 Bacteriological condition of swimming pools and spas	Enumeration of <i>Escherichia coli</i> and Coliform bacteria - Most Probable Number method (Colilert)	SP196 based on ISO 9308-2:2012 and the IDEXX Colilert 18 test kit
.16 Bacteriological conditions of environmental waters	Enumeration of <i>Clostridium perfringens</i> in water	SP207 based on Microbiology of Drinking Water 2010, Part 6
	Detection and Enumeration of <i>Pseudomonas aeruginosa</i>	SP084 based on ISO 16266 (2006)



# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>870 Waters, including effluents</b> .11 Bacteriological condition of potable water .12 Bacteriological conditions of industrial waters (treated, recirculating) .14 Bacteriological condition of Trade wastes .15 Bacteriological condition of swimming pools and spas	Detection, Enumeration and Identification of Legionella sp. (presumptive) by Latex agglutination (Legionella pneumophila serogroup 1, Legionella pneumophilla serogroup 2-14, Legionella Sp.)	SP182 based on BS 6068-4.12:1998
.11 Bacteriological condition of potable waters .12 Bacteriological conditions of industrial waters (treated, recirculating)	Enumeration of a heterotrophic plate count  Enumeration of a heterotrophic plate count by membrane filtration  Enumeration of a heterotrophic plate count in potable and industrial waters by the membrane filtration method at 30° C for 5 days	SP089 based on APHA-21st edition (2012)  SP090 based on APHA-21st edition (2012)  SP191 based on ISO 15883-1:2006

# Scope of Accreditation



## Advanced Micro Services & Environmental Laboratories Ltd (trading as) ALS Microbiology Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
881 DNA Analysis		
.02 Genotyping	Method for the real-time PCR detection of virulence genes in Shiga Toxin Producing E. coli (STEC) and of 7 major serogroups (O157, O111, O26, O103, O145, O45 and O121)	SP209 based on MLG 5B.05
.	Method for the isolation and confirmation of Shiga Toxin Producing E. coli (STEC) Serogroups (O157, O111, O26, O103, O145, O45 and O121) following PCR detection of virulence genes	SP210 based on MLG 5B.05