Laboratory Accreditation Programmes

Schedule to

# CERTIFICATE OF ACCREDITATION

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**ALS Food NZ** **Client Number 9728**

Private Bag 3345, Hamilton, 3240
Ruakura Research Centre, 10 Bisley Road, Hamilton, 3214

**Telephone 07 974-4740** **www.alsglobal.com**

**Authorised Representative**
Ms Maya Hasegawa
Quality Manager
Private Bag 3345
Hamilton 3240
New Zealand

**Programme**
Chemical Testing Laboratory

**Accreditation Number** 1377 **Initial Accreditation Date** 26 February 2021

**Conformance Standard**
ISO/IEC 17025:2017
General requirements for the competence of testing and calibration laboratories

**Laboratory Services Summary**

## ICP-MS

| | |
|---|---|
| 2.24 | Textiles and Textile Products |
| 2.31 | Foods |
| 2.61 | Biological Specimens |

## Food Chemistry

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| 2.31 | Foods |
| 2.70 | Instrumental Techniques |

## Essential oils

| | |
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| 2.33 | Cosmetics, Perfumes and Essential Oils |

## Environmental Chemistry

| | |
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| 2.58 | Environmental Monitoring |



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# ICP-MS

## 2.24 Textiles and Textile Products

**(c) Chemical tests**

## 2.31 Foods

**(a) Cereals and cereal products**
**(c) Nuts, fruits and vegetables and derived products**
**(f) Dairy products**
**(g) Meat, poultry and derived products**
**(h) Fish and fish products**
**(i) Eggs and egg products**
**(k) Non-alcoholic beverages**
**(o) Other specified foods**

## 2.61 Biological Specimens

**(b) Residues in specified veterinary specimens**

Microwave digestion of textiles, food and biological specimens for elemental analysis, in accordance with in-house procedures for the following elements:

| | | | |
|---|---|---|---|
| Aluminium | Antimony | Arsenic | Barium |
| Boron | Cadmium | Caesium | Calcium |
| Cerium | Chromium | Cobalt | Copper |
| Dysprosium | Erbium | Europium | Gadolinium |
| Holmium | Iron | Lanthanum | Lead |
| Lithium | Lutetium | Magnesium | Manganese |
| Molybdenum | Neodymium | Nickel | Potassium |
| Praseodymium | Rubidium | Samarium | Selenium |
| Sodium | Strontium | Thulium | Tin |
| Uranium | Vanadium | Ytterbium | Yttrium |
| Zinc | | | |

Hot block digestion of Foetal Bovine Serum (FBS) for elemental analysis in accordance with in-house procedures for the following elements:

| | | | |
|---|---|---|---|
| Aluminium | Antimony | Arsenic | Barium |
| Boron | Cadmium | Caesium | Calcium |
| Cerium | Chromium | Cobalt | Copper |
| Dysprosium | Erbium | Europium | Gadolinium |
| Holmium | Iron | Lanthanum | Lead |



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| | | | |
|---|---|---|---|
| Lithium | Lutetium | Magnesium | Manganese |
| Molybdenum | Neodymium | Nickel | Potassium |
| Praseodymium | Rubidium | Samarium | Selenium |
| Sodium | Strontium | Thulium | Tin |
| Uranium | Vanadium | Ytterbium | Yttrium |
| Zinc | | | |

**2.31 Foods**

**(f) Dairy products (milk and milk powders)**

Alkali digestion for elemental analysis in accordance with in-house procedures for the analysis of Iodine

**(f) Dairy products**
**(o) Other specified foods (honey)**

Unspecified digestion process for elemental analysis in accordance with in-house procedures for the analysis of the following elements:

| | | | |
|---|---|---|---|
| Aluminium | Antimony | Arsenic | Barium |
| Beryllium | Bismuth | Boron | Cadmium |
| Caesium | Calcium | Chromium | Cobalt |
| Copper | Germanium | Iron | Lanthanum |
| Lead | Lithium | Magnesium | Manganese |
| Mercury | Molybdenum | Nickel | Phosphorus |
| Potassium | Rubidium | Selenium | Sodium |
| Strontium | Thallium | Tin | Titanium |
| Tungsten | Uranium | Vanadium | Yttrium |
| Zinc | | | |

## Food Chemistry

### 2.31 Foods

**(a) Cereals and cereal products**
**(b) Edible oils, fats and their products**
**(c) Nuts, fruits and vegetables and derived products**
**(d) Sauces, herbs, spice and condiments**
**(e) Sugars and sugar confectionery**
**(f) Dairy products**
**(g) Meat, poultry and derived products**
**(h) Fish and fish products**
**(k) Non-alcoholic beverages**



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**(o) Other specified foods (honey)**

Determination of sugar profile by HPLC-RI in accordance with in-house procedures

**(a) Cereals and cereal products**

| | |
|---|---|
| Ash | AOAC 923.03 |
| Moisture | AOAC 945.15 as per AOAC 935.29 |
| Nitrogen (Kjeldahl) | AOAC 945.18 |
| Protein (Kjeldahl) | AOAC 945.18 |

**(c) Nuts, fruits and vegetables and derived products**

| | |
|---|---|
| Ash | AOAC 950.49 |
| Moisture | AOAC 934.01 |
| Nitrogen (Kjeldahl) | AOAC 920.152 |
| Nitrogen (Kjeldahl) | AOAC 950.48 |
| Protein (Kjeldahl) | AOAC 920.152 |
| Protein (Kjeldahl) | AOAC 950.48 |

**(e) Sugars and sugar confectionery**

| | |
|---|---|
| Ash | AOAC 900.2 |
| Ash | AOAC 972.15 |

**(f) Dairy products**

**(milk, cream, milk powders, caseins and caseinates, whey products, milk protein concentrate, infant formula, protein powder, cultured products, dairy foods, ice cream, UHT milk, AMF, butter, cheese)**

| | |
|---|---|
| A1 β-casein (milk and milk products) | In-house LC-MS/MS |
| A1 β-casein – intact (milk) | In-house LC-UV/MS |
| A1/A2 phenotype (milk) | In-house LC-MS/MS |
| Absolute A1 & A2 β-casein content (by proteolytic digestion) | In-house LC-MS/MS or LC-HRMS |
| Acidity | APHA 15.023 (modified) |
| Aflatoxin-$M_1$ | In-house LC-MS/MS |
| Ash | AOAC 930.30 |
| Ash | GB 5009.4-2016 Method 1 |
| Ash (caseinates) | ISO 5545 / IDF 90:2008 |
| Ash (milk and milk powder) | BS 1743:1968 |
| Bromoforms | In-house Headspace GC-MS |
| Bulk Density | GEA Niro A 2 a, September 2006 |
| Carbohydrate (by calculation) | AS/NZ Food Standards Code, 1.2.8 |
| Chlorate & perchlorate | In-house LC-MS/MS |
| Chloride (excluding low level) | ISO 21422 / IDF 242:2018 |
| Chloride | ISO 5943 / IDF 88:2006 |
| Chloride | ISO 21422 / IDF 242:2018 |



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| | |
|---|---|
| Chloride | ISO 15648 / IDF 179:2004 |
| Fat (RG) | ISO 1211 / IDF 1:2010 |
| Fat (RG) | ISO 1736 / IDF 9:2008 |
| Fat (RG) | ISO 2450 / IDF 16:2008 |
| Fat (SBR) | ISO 1735 / IDF 5:2004 |
| Fat (SBR) | ISO 5543 / IDF 127:2004 |
| Fat (RG) (low levels) | ISO 7208 / IDF 22:2008 (modified) |
| Fat by difference (by calculation) | ISO 8851-3 / IDF 191-3:2004 |
| Foreign Matter | AS 2300.4.5-1994 |
| Foreign Matter | ISO 5739 / IDF 107:2003 |
| Foreign Matter | AS 2300.4.5-1994 (modified) |
| Foreign Matter | AS 2300.4.5-1994 |
| Foreign Matter | ISO 5739 / IDF 107:2003 (modified) |
| Free Fatty Acids | AOCS Ca 5a-40: 2017 |
| Glyphosate, glufosinate and aminomethylphosphonic acid (AMPA) | In-house UPLC-MS/MS |
| Impurities | GB 5413.30-2016 |
| Inhibitory Substances | DelvoTest SP NT |
| Insolubility Index | ISO 8156 / IDF 129:2014 |
| Milk adulterants<br>• Cyanuric acid<br>• Dicyandiamide<br>• Melamine | In-house LC-MS/MS |
| Moisture | AS 2300.1.1 |
| Moisture | GB 5009.3:2016 Method I |
| Moisture | IDF 26A:1993 (superseded) |
| Moisture | ISO 5550 / IDF 78:2006 |
| Moisture | ISO 8851-1 / IDF 191-1:2004 |
| Nitrate | ISO 14673-3 / IDF 189-3:2004 |
| Nitrite | ISO 14673-3 / IDF 189-3:2004 |
| Nitrogen (Kjeldahl) | ISO 8968-1 / IDF 20-1:2014 |
| Nonylphenol ethoxylates (NPEs) | In-house LC-MS/MS |
| Peroxide value (AMF) | ISO 3976 / IDF 74:2006 |
| pH | APHA 15.023 (modified) |
| pH | ISO 7238 / IDF 104:2004 |
| Protein (Kjeldahl) | ISO 8968-1 / IDF 20-1:2014 |
| Quaternary Ammonium Compounds (QACs) (milk, infant formula, whey protein isolates)<br>• Benzalkonium chloride<br>• Didecyldimethylammonium chloride | In-house LC-MS/MS |
| Salt | ISO 5943 / IDF 88:2006 |
| Salt | ISO 21422 / IDF 242:2018 |
| Salt | ISO 15648 / IDF 179:2004 |
| Scorched Particles | AS 2300.4.5-1994 |
| Scorched Particles | AS 2300.4.5-1994 (modified) |
| Scorched Particles | ISO 5739 / IDF 107:2003 |
| Scorched Particles | ISO 5739 / IDF 107:2003 (modified) |

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| | |
|---|---|
| Solids Non-fat | ISO 8851-2 / IDF 191-2:2004 |
| Total Solids | ISO 6731:2010 |
| Total Solids | ISO 5534:2004 |
| Water Content (Karl Fischer) | ISO 12779 / IDF 227:2011 |
| Water Content (Karl Fischer) | ISO 5536 / IDF 23:2009 |
| Whey Protein Nitrogen Index (WPNI) | AS 2300.4.8-1994 (modified) |

**(g) Meat, poultry and derived products**

| | |
|---|---|
| Ash | AOAC 920.153 |
| Moisture | AOAC 950.46 |
| Moisture | AOAC 950.46 as per AOAC 935.29 |
| Moisture | AOAC 930.15 |
| Nitrogen (Kjeldahl) | AOAC 928.08 |
| Protein (Kjeldahl) | AOAC 928.08 |

**(h) Fish and fish products**

| | |
|---|---|
| Ash | AOAC 938.08 |
| Moisture | AOAC 952.08 |

**(l) Food additives and supplements**

**(non-dairy protein powders, fibre supplements, protein and peptide-based additives)**

| | |
|---|---|
| Moisture | GB 5009.3:2016 Method I |
| Nitrogen (Kjeldahl) | ISO 8968-1: IDF 20-1 (modified) |
| Protein (Kjeldahl) | ISO 8968-1: IDF 20-1 (modified) |

**(o) Other specified foods (honey)**

Analysis by UPLC-MS/MS in accordance with in-house procedures:
2'-Methoxyacetophenone
2-Methoxybenzoic acid
3-Phenyllactic acid
4-Hydroxyphenyllactic acid

Analysis in accordance with the following procedures :

| | |
|---|---|
| Brix | In-house (automated refractometry) |
| Brix | In-house (refractometry) |
| C4 sugars | AOAC 998.12 (Cavity Ringdown Spectroscopy) |
| C4 sugars | AOAC 998.12 (Isotopic Ratio Mass Spectroscopy) |
| C4 sugars | AOAC 998.12 (Modified Isotopic Ratio Mass Spectroscopy) |
| C4 sugars screen | AOAC 998.12 (Modified Isotopic Ratio Mass Spectroscopy) |



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| | |
|---|---|
| Colour | In-house (refractometry) |
| Conductivity | Harmonised Methods of the International Honey Commission 2009 |
| Conductivity | In-house (automated refractometry) |
| Diastase activity | DIN 10750-2:2022-09 (modified) (Nitrophenol-based process) |
| Diastase activity | Phadebas amylase test |
| Dihydroxyacetone (DHA) | In-house HPLC – diode array |
| Foreign Matter | AS 2300.4.5: 1994 (modified) |
| Foreign Matter | ISO 5739 / IDF 107:2003 (modified) |
| Free Acidity | AOAC 962.19 |
| Glyphosate, glufosinate and aminomethylphosphonic acid (AMPA) | In-house LC-MS/MS |
| 5-Hydroxymethlyfurfural (HMF) | In-house HPLC – diode array |
| Leptosperin | In-house UPLC-PDA |
| Methylglyoxal (MGO) | In-house HPLC – diode array |
| Moisture | AOAC 969.38B (modified) |
| Moisture | In-house (automated refractometry) |
| Moisture (Karl Fischer) | Merck Aquastar – one component |
| pH | AOAC 962.19 |
| Tutin | In-house LC-MS/MS |

### 2.70 Instrumental Techniques

**(d2) Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) (2.31)**

This technique pertains to classes of tests shown in parentheses and detailed above.

Explanatory Note:
This 2.70 class of test allows specifically approved senior analysts to develop, validate and use a new test method by the specified instrumental technique for a non-routine analysis in the classes of tests specified. The report over the analyst's personal signature may be endorsed with the IANZ Accreditation symbol.

Should the method become routine, an IANZ technical assessment is required before the method can appear on the laboratory's scope of routine accredited tests.

## Essential oils

### 2.33 Cosmetics, Perfumes and Essential Oils

**(c) Essential oils**

| | |
|---|---|
| Kanuka oil terpenoids (α-pinene, ρ-cymene, viridiflorol) | In-house GC-MS |



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# Environmental Chemistry

## 2.58 Environmental Monitoring

### (d) Other materials – environmental wipes

Analysis for the following compounds in gauze swabs by LC-MS/MS in accordance with NIOSH 9111 (modified)

- Amphetamine
- Methamphetamine
- Ephedrine
- Pseudoephedrine

Analysis of the following compounds in gauze swabs by LC-MS/MS in accordance with NIOSH 9111 (modified) and with the requirements of NZS 8510:2017 Testing and decontamination of methamphetamine - contaminated properties

- Methamphetamine

**References:**

| | |
|---|---|
| AOAC | AOAC International |
| AOCS | American Oil Chemists' Society |
| APHA | American Public Health Association Standard Methods for the Examination of Dairy Products 17th Edition |
| AS | Australian Standards |
| BS | British Standard |
| GB | National Standard of the People's Republic of China |
| ISO | International Organization for Standardization |
| NIOSH | National Institute of Occupational Safety and Health |



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