

**Akrediteringens omfattning**

Matis ohf, Skúlagötu, Reykjavík

**Parameter                      Method (referens)                      Sample type    Uncertainty                      Measurement range**

**Microbiology, water**

Coliforms MPN-5 tubes	ÖVA 1 ISO 9308-2:1990 Standard methods, 21 <sup>st</sup> ed 2005, 9221 B , C, E, F	1:1,2,3
Thermotolerant coliforms MPN-5 tubes	ÖVA 1 ISO 9308-2:1990 Standard methods, 21 <sup>st</sup> ed 2005, 9221 B., C, E, F	1:1,2,3
<i>Escherichia coli</i> MPN-5 tubes	ÖVA 1 ISO 9308-2:1990 Standard methods, 21 <sup>st</sup> ed 2005, 9221 B., C, E, F	1:1,2,3
Coliforms MF	ÖVA 2 ISO 9308-1:2000 (E) Standard methods, 21 <sup>st</sup> ed 2005, 9222 B, D. State f New York DOH. Environmental laboratory approval program certification manual	1:1,2,3,4
Thermotolerant coliforms MF	ÖVA 2 ISO 9308-1:2000 (E) Standard methods, 21 <sup>st</sup> ed 2005, 9222 B, D. State f New York DOH. Environmental laboratory approval program certification manual	1:1,2,3,4
<i>Escherichia coli</i> MF	ÖVA 2 ISO 9308-1:2000 (E) Standard methods, 21 <sup>st</sup> ed 2005, 9222 B, D. State f New York DOH. Environmental laboratory approval program certification manual	1:1,2,3,4

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Parameter	Method (referens)	Sample type	Uncertainty	Measurement range
Total count 22°C, 72 hours 35°C, 48 hours 37°C, 48 hours Pour plate	ÖVA 5 ISO 6222:1999 (E) Standard methods, 21 <sup>st</sup> ed., 2005, 9215 B		1:1,2,3,4	
Total count 22°C, 72 hours 35°C, 48 hours 37°C, 48 hours MF	ÖVA 6 Standard methods, 21 <sup>st</sup> ed., 2005, 9215 D		1:1,2,3,4	
Sulphite reducing clostridia MF	ÖVA 7 ISO/CD 6461-2:1986 NMKL 56, 3 <sup>rd</sup> ed., 1994		1:1,2,3,4	
<i>Pseudomonas aeruginosa</i> MF	ÖVA 8 ISO 12780:2002		1:1,2	
Total viable aerobic bacteria 30°C, 5 days MF	ÖVA 9 Standard methods, 21 <sup>st</sup> ed 2005, 9215 Ph Eur. 5 <sup>th</sup> ed., 2005, 2.6.12		1:1,2	
Yeast, mould MF	ÖVA 10 Standard methods, 21 <sup>st</sup> ed 2005, 9215 Ph Eur. 5 <sup>th</sup> ed., 2005, 2.6.12		1:1,2	
<i>Intestinal Enterococcus</i> MF	ÖVA 12 ISO 7899-2, 1 <sup>st</sup> ed., 2000		1:2,3,4	

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**Parameter                      Method (referens)                      Sample type      Uncertainty      Measurement range**

**Microbiology, food**

Coliforms Pour plates	ÖMA 1 NMKL 44, 6 <sup>th</sup> ed., 2004 NMKL 125, 4 <sup>th</sup> ed., 2005 FDA, 2002, chapter 4	2:1,2,3,4,5,6,8,9
Thermotolerant coliforms Pour plates	ÖMA 1 NMKL 44, 6 <sup>th</sup> ed., 2004 NMKL 125, 4 <sup>th</sup> ed., 2005 FDA, 2002, chapter 4	2:1,2,3,4,5,6,8,9
<i>Escherichia coli</i> Pour plates	ÖMA 1 NMKL 44, 6 <sup>th</sup> ed., 2004 NMKL 125, 4 <sup>th</sup> ed., 2005 FDA, 2002, chapter 4	2:1,2,3,4,5,6,8,9
Coliforms MPN-3 tubes	ÖMA 2 NMKL 96, 3 <sup>rd</sup> ed., 2003 Compendium 4 <sup>th</sup> ed., 2001, chapter 8 (8.71, 8.72, 8.81)	2:1,2,3,4,5,6,8,9
Thermotolerant coliforms MPN-3 tubes	ÖMA 2 NMKL 96, 3 <sup>rd</sup> ed., 2003 Compendium 4 <sup>th</sup> ed., 2001, chapter 8 (8.71, 8.72, 8.81)	2:1,2,3,4,5,6,8,9
<i>Escherichia coli</i> MPN-3 tubes	ÖMA 2 NMKL 96, 3 <sup>rd</sup> ed., 2003 Compendium 4 <sup>th</sup> ed., 2001, chapter 8 (8.71, 8.72, 8.81)	2:1,2,3,4,5,6,8,9
Total count 7°C, 4 days 30°C, 72 hours Pour plate	ÖMA 3 FDA, 2001, chapter 3 (pour plate) NMKL 86, 4 <sup>th</sup> ed., 2006 NMKL 74, 3 <sup>rd</sup> ed., 2000	2:1,2,3,4,5,6,8,9
Total count 7°C, 4 days 22°C, 72 hours 30°C, 72 hours Spiral plate	ÖMA 4 FDA, 2001, chapter 3 (spiral plate) Oxoid, 1998, MRS agar Compendium 4 <sup>th</sup> ed., 2001, Chapter 19 (p.203) and 51 (p.526)	2:1,2,3,4,5,6,8,9
<i>Enterobacteriaceae</i>	ÖMA 5 NMKL 144 3 <sup>rd</sup> ed., 2005	2:1,2,3,4,5,6,8,9 3
<i>Bacillus cereus</i> Spread plate Spiral plate	ÖMA 7 NMKL 67 5 <sup>th</sup> ed., 2003 FDA, 2001, chapter 3 (spread/spiral plate)	2:1,2,3,4,5,6,8,9

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Parameter	Method (referens)	Sample type	Uncertainty	Measurement range
Yeast, mould Spread plate Spiral plate	ÖMA 9 NMKL 98, 4 <sup>th</sup> ed., 2005 Compendium 4 <sup>th</sup> ed, 2001, Chapter 20 FDA, 2001, chapter 3 (spread/spiral plate)		2:1,2,3,4,5,6,8,9	
<i>Staphylococcus aureus</i> Spread plate Spiral plate	ÖMA 12 NMKL 66 4 <sup>th</sup> ed., 2003 FDA, 2001, chapter 3 (spread/spiral plate)		2:1,2,3,4,5,6,8,9	
<i>Campylobacter jejuni/coli</i>	ÖS 1 NMKL 119 2 <sup>nd</sup> ed, 1990 NMKL 119 2 <sup>nd</sup> ed., 1998, draft		2:1,2,3,4,5,6,8,9	
<i>Salmonella</i>	ÖS 2 NMKL 71, 5 <sup>th</sup> ed., 1999 ISO 6579:2002 Wellcolex-serogroup identification		2:1,2,3,4,5,6,8,9	
<i>Listeria monocytogenes</i> , qualitative	ÖS 3 NMKL 136, 3 <sup>rd</sup> ed, 2004		2:1,2,3,4,5,6,8,9	
<i>Clostridium perfringens</i>	ÖS 4 NMKL 95, 4 <sup>th</sup> ed., 2006		2:1,2,3,4,5,6,8,9	

**Microbiology, pharmaceuticals**

Total aerobic bacterial count 30°C, 5 days	ÖL 1 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.12	Drug substances/solutions
Total aerobic viable count, fungi 22°C, 5 days	ÖL 2 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.12	Drug substances/solutions
<i>Escherichia coli</i>	ÖL 3 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.13	Drug substances/solutions
<i>Salmonella</i>	ÖL 4 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.13	Drug substances/solutions
<i>Pseudomonas aeruginosa</i>	ÖL 5 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.13	Drug substances/solutions
<i>Staphylococcus aureus</i>	ÖL 6 Ph. Eur 5 <sup>th</sup> ed, 2005, 2.6.13	Drug substances/solutions

**Akrediteringens omfattning**

Matís ohf, Skúlagötu, Reykjavík

Parameter	Method (referens)	Sample type	Uncertainty	Measurement range
<b>Chemical methods</b>				
Fat	AE 1 AOCS Ba 3-38 (1997)	Fish, fish meal, shellfish	0,2 % s (fishmeal) 1,8 % CV% (11 %) 0,4 % s (fatty fish) 4 % CV% (10 %) 0,1 % s (lean fish) 10%CV(1%)	0,1 – 100 %
Salt (titrino)	AE 2 AOAC (2000) 17 <sup>th</sup> ed no 976 18	Fishmeal, fish, shellfish	0,1 % s 3,3 % CV% (3 %)	0,06 – 30 %
Protein	AE 3 ISO 5983-2 (2005)(E) Application for Tecator)	Fish, fish meal, shellfish	0,4 % s CV 0,6 (70 %)	0,7 – 100 %
Water	AE 4 ISO 6496-1999(E)	Fish, fish meal, shellfish	0,2 % s (fishmeal) 2,7 CV% (7,4 %) 0,4 % s (fish) 0,5 CV% (83 %)	0 – 100 %
Ash	AE 5 ISO 5984-2002 (E)	Feed	0,5 % s (fishmeal) 5 % CV% (11 %) 0,1 % s (fish) 5 % CV% (2 %)	0,1 – 50 %
IVB-N Total volatile basic Nitrogen	AE 6 AOAC (2000) 17 <sup>th</sup> ed no. 920 03	Fish, fish meal, shellfish	0,005 % s (fishmeal) 3,8 CV% (0,13 % N) 0,7 mg N/100g s (fish) 2,8 CV% (25 mg)	0,01 – 0,4 % N in fishmeal 2 mg–120 mg N/100g

## Akkrediteringens omfattning

Mátis ohf, Skulagötu, Reykjavík

Parameter	Method (referens)	Sample type	Uncertainty	Measurement range
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## Explanations

### 1. Sample types

#### 1. Water

1:1	Fresh water/Swimming-pool water
1:2	Drinking water
1:3	Sea water
1:4	Waste water/Leach water
1:5	Sludge/Sediment
1:6	Biota

#### 2. Foods

2:1	Meat/ Meat products (other products from animals are included in meat products)
2:2	Bird/ Bird products
2:3	Fish/ Fish products
2:4	Cereals/ Cereal products
2:5	Vegetables/Vegetable products/ Fruit/ Fruit products/ Juice
2:6	Milk/ Milk products
2:7	Fat/ Oil/ Emulsions
2:8	Composite foods
2:9	Canned foods

### 2. Measurement Uncertainty

Measurement uncertainty, determined by the testing laboratory, not from the literature  
(The given measurement uncertainty is calculated by a coverage factor 2 for an approximate level of confidence of 95 % )

### 3. Measurement range

Measurement range of analyses without dilution. At higher ranges the samples can be diluted to the working range.)

## Akkrediteringens omfattning

Matis ohf, Neskaupstadur

Parameter	Method (referens)	Sample type	Uncertainty	Measurement range
<b>Chemical methods</b>				
Protein	Ghb-e-AM-903, ISO 5983-2:2005	Fish, fish meal, shellfish	0,4 % s CV 0,6 (70 %)	0,7 – 100 %
Water	Ghb-e-AM-904 ISO 6496-1999(E)	Fish, fish meal, shellfish	0,2 % s (fishmeal) 2,7 CV% (7,4 %) 0,4 % s (fish) 0.5 CV% (83 %)	0 – 100 %
Fat	Ghb-e-AM, 901a AOCS Ba 3-38 (1997)	Fish, fish meal, shellfish	0,2 % s (fishmeal) 1,8 % CV% (11 %) 0,4 % s (fatty fish) 4 % CV% (10 %) 0,1 % s (lean fish) 10%CV(1%)	0,2 – 100 %
Salt (shaking)	Ghb-e-AM-902 a JOAC 20,410 (1937),23,589(1940)	Fish,, shellfish	0,2 % s fish 10%CV(2%)	0,06 – 30 %
Salt (boiling)	Ghb-e-AM-902 b AOAC (2000) 17 <sup>th</sup> ed no 937 09	Fish meal,	0,2 % s fish meal 7%CV(3%)	0,16 – 10 %
Ash	Ghb-e-AM-905 ISO 5984-2002 (E)	Feed	0,5 % s (fishmeal) 5 % CV % (11 %) 0,1 % s (fish) 5 % CV% (2 %)	0,1 – 50 %
<b>Microbiological methods</b>				
Total plate counts	Ghb-o-AB-301 Pour Plate	fish, fish meal shellfish seawater, water		
Total (a) and faecal (b)coliforms	Ghb-o-AB-501a, 501b MPN method	fish, fish meal shellfish seawater, water		
Coagulase positive staphylococci	Ghb-o-AB-601	fish, fish meal, shellfish		
<i>Listeria spp.</i>	Ghb-o-AB-701a, 2006-05-01 MI G 8 04, rev 4	fish, fish meal, shellfish	Qualitative	
<i>Salmonella</i>	Ghb-o-AB-801	fish, fish meal, shellfish	Qualitative	
Enterobacteriaceae	Ghb-o-AB-01201 BS5763; Part 10.1986 (ISO 7402-1985)	fish, fish meal, shellfish		

## Explanations

### 2. Measurement Uncertainty

Measurement uncertainty, determined by the testing laboratory, not from the literature  
The given measurement uncertainty is calculated by a coverage factor 2 for an  
approximate level of confidence of 95 %.)

### 3. Measurement range

Measurement range of analyses without dilution. At higher ranges the samples can be  
diluted to the working range.)



**Scope of accreditation**

Matis ohf, Akureyri

Analyzed variable	Method (Reference)	Principle for Measurement	Sample type	Measurement uncertainty	Calibration range	Reporting range
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**Analysis of pesticides**

Biphenyl	FHB 10, 2006-11-14	GC-MS	2:5	51 %	0,01 – 1 µg/l	>0.015 mg/kg
2-phenylphenol	FHB 10, 2006	GC-MS	2:5	36 %	0,01 – 1 µg/l	>0,02 mg/kg
Dimethoat	FHB 10, 2006	GC-MS	2:5	60 %	0,01 – 1 µg/l	>0,02 mg/kg
Diazinon	FHB 10, 2006	GC-MS	2:5	36 %	0,01 – 1 µg/l	>0,02 mg/kg
Chlorpyrifos-methyl	FHB 10, 2006	GC-MS	2:5	40 %	0,01 – 1 µg/l	>0,02 mg/kg
Parathion-methyl	FHB 10, 2006	GC-MS	2:5	46 %	0,01 – 1 µg/l	>0,02 mg/kg
Chlorpyrifos	FHB 10, 2006	GC-MS	2:5	37 %	0,01 – 1 µg/l	>0,02 mg/kg
Dicofol	FHB 10, 2006	GC-MS	2:5	41 %	0,01 – 1 µg/l	>0,02 mg/kg
Chlorfenvinphos	FHB 10, 2006	GC-MS	2:5	40 %	0,01 – 1 µg/l	>0,02 mg/kg
Procymidon	FHB 10, 2006	GC-MS	2:5	39 %	0,01 – 1 µg/l	>0,02 mg/kg
Alpha-Endosulfan	FHB 10, 2006	GC-MS	2:5	39 %	0,05 – 1 µg/l	>0,035 mg/kg
Bupirimat	FHB 10, 2006	GC-MS	2:5	42 %	0,01 – 1 µg/l	>0,025 mg/kg
Beta-Endosulfan	FHB 10, 2006	GC-MS	2:5	36 %	0,05 – 1 µg/l	>0,035 mg/kg
Iprodione	FHB 10, 2006	GC-MS	2:5	44 %	0,01 – 1 µg/l	>0,02 mg/kg
Phosalone	FHB 10, 2006	GC-MS	2:5	43 %	0,01 – 1 µg/l	>0,025 mg/kg
Permethrin	FHB 10, 2006	GC-MS	2:5	36 %	0,01 – 1 µg/l	>0,02 mg/kg
Cypermethrin	FHB 10, 2006	GC-MS	2:5	48 %	0,05 – 1 µg/l	>0,035 mg/kg

## Explanations

### 1. Sample types

#### 2. Foods

- 2:1 Meat/ Meat products (other products from animals are included in meat products)
- 2:2 Bird/ Bird products
- 2:3 Fish/ Fish products
- 2:4 Cereals/ Cereal products
- 2:5 Vegetables/Vegetable products/ Fruit/ Fruit products/ Juice
- 2:6 Milk/ Milk products
- 2:7 Fat/ Oil/ Emulsions
- 2:8 Composite foods
- 2:9 Canned foods

### 2. Measurement Uncertainty

Measurement uncertainty, determined by the testing laboratory, not from the literature  
(The given measurement uncertainty is calculated by a coverage factor 2 for an approximate level of confidence of 95 %.)

### 3. Measurement range

Measurement range of analyses without dilution. At higher ranges the samples can be diluted to the working range.)