

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



National Health Laboratory
Maldives Food and Drug Authority
Sosun Magu, Male' 20184, Republic of Maldives
Telephone# 3014346, 3034247
Email: nhl@health.gov.mv

INFORMATION SHEET

Rec. No.: NHL/QM- Li/IS38-2025-004

Date: 09/02/2025

INTRODUCTION

This sheet provides information on laboratory tests and trainings, available at National Health Laboratory. Listed below are the contents and the page numbers.

Contents

FACTORS TO CONSIDER IN COLLECTING AND SENDING SAMPLES FOR ANALYSIS.....	2
PAYMENTS FOR ANALYSES	3
Table 1- TESTS AVAILABLE AND PRICES FOR THE ANALYSIS OF WATER CHEMISTRY	4
ACCEPTANCE CRITERIA FOR WATER CHEMISTRY SAMPLES	6
WATER SAMPLING METHODS FOR PHYSIOCHEMICAL ANALYSIS (W.H.O)	7
Table 2- TEST AVAILABLE AND PRICES FOR THE CHEMICAL ANALYSIS OF FOOD	8
ACCEPTANCE CRITERIA FOR FOOD CHEMISTRY SAMPLE RECEIVING	10
Table 3- FOOD MICROBIOLOGY	11
Table 4- ENVIRONMENTAL SWAB SAMPLES	11
Table 5- WATER MICROBIOLOGY:.....	11
COLLECTION OF FOOD SAMPLES FOR MICROBIOLOGY	12
TRANSPORT OF FOOD SAMPLES TO THE LABORATORY FOR MICROBIOLOGICAL ANALYSIS	12
CONDITION OF SAMPLES CONTAINERS FOR FOOD MICROBIOLOGICAL ANALYSES	13
COLLECTION OF WATER FOR MICROBIOLOGICAL EXAMINATION.....	13
COLLECTION OF SURFACE SWAB FOR MICROBIOLOGICAL ANALYSIS.....	15
IN GENERAL - FOR ALL TYPES OF SAMPLES:.....	16
Table 6- National Criteria for Drinking Water	17
Table 7- Tests Available and Prices for the Chemical Analysis of Pharmaceutical Products	18
SAMPLE DETAILS DECLARATION FORM – FOR CLIENTS STERILIZING BOTTLES INDEPENDENTLY	20

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 1 of 24

SAMPLE DETAILS DECLARATION FORM – FOR CLIENTS STERILIZING BOTTLES FROM NHL	21
SAMPLE DETAILS DECLARATION FORM – FOR MTG PHARAMCEUTICAL TESTING	23
Table 8: TRAININGS CONDUCTED AT NATIONAL HEALTH LABORATORY	24

FACTORS TO CONSIDER IN COLLECTING AND SENDING SAMPLES FOR ANALYSIS.

For MICROBIOLOGICAL WATER SAMPLES:

- Sterilized bottles or thio dosed sterilized sampling bags have to be used to collect water samples. The sterilized bottles provided by NHL will have an Indicator tape pasted on each bottle with sterilized date mentioned on it. These bottles shall be handled carefully and under hygienic conditions and can be used for water sample collection within one month of sterilization date if stored under appropriate conditions. Please ensure these indicator tapes are adhered to the bottles until samples are received to the lab. Samples bottles provided by NHL brought without the indicator tape will be rejected.
- If sterilized bottles are not available with you, kindly request bottles by contacting the sample receiving counter at 3034247.
- If using sterilized bottles (of your own):
 - NHL offers complimentary bottle sterilization services, provided that the bottles are autoclavable.
 - If sterilizing independently, an indication of sterilization shall be provided such as using an indicator tape with sterilized date on the bottle or mentioning the sterilized date in Sample Detail Form submitted during sample reception. Additionally, ensure that sodium thiosulphate has been added to inhibit the sterilizing agent. If these steps are not followed during sterilization, samples will not be accepted.
 - A statement confirming that sterilization was conducted independently, and according to specified method, including the sterilization date, and providing sample details as per the Sample Detail Form, must be submitted.

For **WATER CHEMISTRY TESTS**, you may use empty bottles of bottled water. For type of containers, please refer to Table 1, container column.

FOOD SAMPLES (BOTH MICROBIOLOGY AND CHEMISTRY) can be taken to sterile zip lock bags and locked. If the sample cannot be brought in 3 hours of sampling time, then it must be kept in chilled conditions. It is recommended to bring samples as soon as samples are taken.

FOR SWAB SAMPLES you need to request for diluent bottles (by calling Sample Receiving Counter @ 3034247) and when they are ready you can collect those, along with sterile swabs. After sample collection, you can keep them in chilled condition if they cannot be brought immediately.

Once samples are collected, they have to be submitted to **Sample Receiving Counter**. For

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 2 of 24

submitting samples, please reserve a time by calling our sample receiving counter (3034247) beforehand.

A filled “Sample Details Form”, or a letter stating the details of the samples and tests required, with signature of the person accountable for the samples, must be submitted along with the samples to the laboratory.

Clients conducting independent sterilization, must include a statement confirming that sterilization was conducted independently, and according to the specified method, along with the sterilization date, must be included in the Sample Details Form, as mentioned above. Please refer to the Sample Detail Forms on pages 18 and 19 for further information.

For information on how to sample for a type of test, refer to sampling information following the tables.

PAYMENTS FOR ANALYSES

Payments for sample testing should be paid via Bandeyri Portal Payment. (Please refer below for further details).

Time for payments: Payments must be made before 13:30 of the day of sample submission. If not paid by then, samples will not be processed and no reports issued.

Payments have to be made via Bandeyri Pay portal (<https://bandeyripay.finance.gov.mv/>).

[Bandeyri Portal Payment - Ministry of Finance](#)

Choose the following options from the portal (to request for payment):

For Agency: Select “Maldives Food and Drug Authority”

Payment for: Select “Laboratory services”

Reference No.: Put the requisition form no.

Amount: Total for the requisition form no.

Payer Information

Name: Company Name

Once this request gets approved you will get a link to make the payment.

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 3 of 24

Table 1- TESTS AVAILABLE AND PRICES FOR THE ANALYSIS OF WATER CHEMISTRY

#	PARAMETER	PRICE (MVR)	TEST METHOD	AMOUNT REQ (ML)	RANGE	CONTAINER	TIME TAKEN FOR TESTING
1)	Aluminum*	310	Method 8326 (Adapted from DR6000™ Spectrophotometer procedure manual)	100	0.006 to 0.250 mg/L Al ³⁺	Plastic, Glass	1 day
2)	Ammonia *	560	Method 8038 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.50 mg/L NH ₃ -N	Plastic, Glass	1 day
	Ammonium*		Method 8038 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.50 mg/L NH ₃ -N	Plastic, Glass	1 day
3)	Arsenic*	1245	Method 8013 (Adapted from DR6000 Spectrophotometer procedure manual)	500	0 to 0.200 mg/L As	Plastic, Glass	2 days / sample
4)	Barium*	350	Method 8014 (Adapted from DR6000™ Spectrophotometer procedure manual)	20	2 to 100 mg/L Ba	Plastic, Glass	1 day
5)	Boron*	925	Method 8015 (Adapted from DR6000™ Spectrophotometer procedure manual)	10	0.2 to 14.0 mg/L B	Plastic	1 day
6)	Bromine*	325	Method 8016 (Adapted from DR6000™ Spectrophotometer procedure manual)	100	0.05 to 4.50 mg/L Br ₂	Glass	1 day
7)	Cadmium*	640	Method 8017 (Adapted from DR6000™ Spectrophotometer procedure manual)	500	0.7 to 80.0 µg/L Cd	Plastic, Glass	1 day
8)	Calcium	525	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 3500-Ca-B Part 3000.254-255	150		Plastic, Glass	1 day
9)	Calcium Hardness	540	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 3500-Ca-B Part 3000.254-255	200		Plastic, Glass	1 day
10)	Chloride*	360	Adapted from Sherwood MK II chloride analyzer instruction manual	5	>5mg/L	Plastic, Glass	1 day
11)	Free chlorine*	330	Method 8021 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.00 mg/L Cl ₂	Glass	1 day
12)	Chlorine, Total*	300	Method 8167 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.00 mg/L Cl ₂	Glass	1 day
13)	Chromium Hexavalent*	150	Method 8023 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.010 to 0.700 mg/L Cr ⁶⁺	Plastic, Glass	1 day
14)	Cobalt*	655	Method 8078 (Adapted from DR6000™ Spectrophotometer procedure manual)	20	0.01 to 2.00 mg/L Co	Plastic, Glass	1 day
15)	Color, True and Apparent*	415	Method 8025(Adapted from DR6000™ Spectrophotometer procedure manual)	50	15 to 500 color units 5 to 500 color units (low range technique)	Plastic, Glass	1 day
16)	Copper*	450	Method 8143 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	1 to 210 µg/L Cu	Plastic, Glass	1 day
17)	Cyanide*	1020	Method 8027 (Adapted from DR6000™ Spectrophotometer procedure manual)	20	0.002 to 0.240 mg/L CN ⁻	Plastic, Glass	1 day
18)	Conductivity with temperature	255	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA, WEF, 24 th Edition, 2023, Part 2510 B	100	1 to 50000 µs/cm	Plastic, Glass	1 day
19)	Fluoride*	800	Method 8029 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.00 mg/L F ⁻	Plastic, Glass	1 day
20)	Hardness, Total (Titration)	1470	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 2340 B. Part 2000.125-126	250		Plastic, Glass	1 day
21)	Hydrogen Sulfide*	200	Adapted from Method; Test Kit Method HS-C1 2537801	100	0–5 mg/L H ₂ S	Plastic, Glass	1 day
22)	Iodine (Total) *	325	Method 8031 (Adapted from DR6000™ Spectrophotometer procedure manual)	20	0.07 to 7.00 mg/L I ₂	Glass	1 day
23)	Iron (Total) *	235	Method 8008(Adapted from DR6000™ Spectrophotometer procedure manual)	20	0.02 to 3.00 mg/L Fe	Plastic, Glass	1 day
24)	Lead*	640	Method 8317 (Adapted from DR6000™ Spectrophotometer procedure manual)	200	5 to 150 µg/L	Plastic, Glass	1 day
25)	Magnesium	800	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 3500-Mg B. Part 3000.273	500		Plastic, Glass	1 day
26)	Magnesium Hardness*	790	Adapted from Standard method 22 nd Edition, 2012 for the Examination of Water and Waste Water by APHA, Chapter 3 page 57,	200		Plastic, Glass	1 day

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 4 of 24	

27)	Manganese *	500	Method 8034, 8149 (Adapted from DR6000™ Spectrophotometer procedure manual)	30	0.1 to 20.0 mg/L Mn (HR) 0.006 to 0.700 mg/L Mn (LR)	Plastic	1 day
28)	Mercury by mercury analyzer*	2755	Manufactures method mileston-DMA-80 Direct Hg Analyzer	300	0.005-1000 ng/L Hg	Plastic, Glass	3 days
29)	Nickel*	655	Method 8150 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.006 to 1.000 mg/L Ni	Plastic, Glass	1 day
30)	Nitrate *	300	Method 8039, 8192 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.3 to 30.0 mg/L NO ₃ ⁻ N (HR) 0.01 to 0.50 mg/L NO ₃ ⁻ N (LR)	Plastic, Glass	1 day
31)	Nitrite*	310	Method 8507, 8153 (Adapted from DR6000™ Spectrophotometer procedure manual)	20	0.002 to 0.300 mg/L NO ₂ ⁻ N (LR) 2 to 250 mg/L NO ₂ ⁻	Plastic, Glass	1 day
32)	Oil & Grease*	420	Practical Methods in Ecology and Environmental Science (R.K.Trivedy, P.K.Goel, C.I.Trishal) chapter 10 pages 215-217)	500		Glass; 2 separate glass bottles each containing 250 mL of sample	2 days / 3 samples
33)	Total Organic Carbon, (TOC) *	1230	Method 10128, 10173, 10129 (Adapted from DR6000™ Spectrophotometer procedure manual)	10	100 to 700 mg/L C (HR) 15 to 150 mg/L C (MR) 0.3 to 20.0 mg/L C (LR)	Glass	2 days
34)	Oxygen Demand, Biochemical *	860	Respirometric Method 10099 (Adapted from BODTrakTMII Apparatus)	1000	0 to 700 mg/L	Plastic, Glass	6 days
35)	Chemical Oxygen Demand, (COD) *	550	Method 8000, (Adapted from DR6000™ Spectrophotometer procedure manual)	1000	0.7 to 40.03 mg/L COD (ULR) 3 to 150 mg/L COD (LR) 20 to 1500 mg/L COD (HR) 200 to 15,000 mg/L COD (HR Plus)	Glass	2 days
36)	Dissolved Oxygen*	270	Method 8166, 8333, 8316 (Adapted from DR6000™ Spectrophotometer procedure manual)	100	0.3 to 15.0 mg/L O ₂ (HR) 1.0 to 40.0 mg/L O ₂ (UHR) 6 to 800 µg/L O ₂	Glass with no space and immediate capping after sampling	1 day
37)	Ozone*	300	Method 8311, (Adapted from DR6000™ Spectrophotometer procedure manual)	100	0.01 to 0.25 mg/L O ₃ (LR) 0.01 to 0.75 mg/L O ₃ (MR) 0.01 to 1.50 mg/L O ₃ (HR)	Plastic, Glass	1 day
38)	pH with temperature	175	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA, WEF, 24 th Edition, 2023, Part 4000 473-478	100	0 to 14	Plastic, Glass	1 day
39)	Phenols*	1350	Method 8047 (Adapted from DR6000™ Spectrophotometer procedure manual)	600	0.002 to 0.200 mg/L	Glass	1 day
40)	Phosphorus, Reactive (Orthophosphate)*	350	Method 8048, (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 2.50 mg/L PO ₄ ³⁻	Plastic, Glass	1 day
41)	Potassium *	300	Method 8049 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.1 to 7.0 mg/L K	Plastic, Glass	1 day
42)	Salinity *	250	Adapted from corning checkmate II meter instruction manual	50		Plastic, Glass	1 day
43)	Selenium*	1800	Method 8194 (Adapted from DR6000™ Spectrophotometer procedure manual)	200	0.01 to 1.00 mg/L Se	Plastic, Glass	1 day
44)	Silica*	250	Method 8186, 8185 (Adapted from DR6000™ Spectrophotometer procedure manual)	100	1 to 100 mg/L SiO ₂ (HR) 0.010 to 1.600 mg/L SiO ₂	Plastic	1 day
45)	Silver*	850	Method 8120 (Adapted from DR6000™ Spectrophotometer procedure manual)	100	0.02 to 0.70 mg/L Ag	Plastic, Glass	1 day

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 5 of 24	

46)	Sulfate*	220	Method 8051, (Adapted from DR6000™ Spectrophotometer procedure manual)	25	2 to 70 mg/L SO ₄ ²⁻	Plastic, Glass	1 day
47)	Surfactants, Anionic (Detergents) *	675	Method Detergents DE-2 143203, (Adapted from DR6000™ Spectrophotometer procedure manual)	1000	(0–1.2 mg/L as LAS (linear alkylate sulfonate) and/or ABS (alkyl benzene sulfonate))	Plastic, Glass	1 day
48)	Suspended Solids*	150	Method 8006 (Adapted from DR6000™ Spectrophotometer procedure manual)	1000	5 to 750 mg/L TSS	Plastic, Glass	1 day
49)	Threshold odor*	340	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 2150 B. Threshold Odor Test	1000 (filled to the top)		Glass or PTE-lined bottle	1 day
50)	Tannin and Lignin*	240	Method 8193 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.1 to 9.0 mg/L Tannins (as Tannic Acid)	Plastic, Glass	1 day
51)	Total Alkalinity	215	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th Edition, 2023, 2320 B	200		Plastic, Glass	1 day
52)	Total Dissolved Solids with temperature	255	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA, WEF, 24 th Edition, 2023, Part 2540 C	100		Plastic, Glass	1 day
53)	TPH (Total Petroleum Hydrocarbon) *	520	Method 10050 (Adapted from DR6000™ Spectrophotometer procedure manual)	20		Plastic, Glass	1 day
54)	Trihalomethanes *	1280	Method 10132 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	10 to 600 ppb as Chloroform	Glass. Fill the bottles slowly to overflowing so that no air is included with the sample. Seal the bottles tightly and invert to check that no air has been trapped.	1 day
55)	Turbidity by turbidimeter*	255	Adapted from HACH 2100 N TURBIDIMETER instruction manual	50		Plastic, Glass	1 day
56)	Zinc*	500	Method 8009 (Adapted from DR6000™ Spectrophotometer procedure manual)	50	0.02 to 3.00 mg/L Zn	Plastic, Glass	1 day

Note: Parameters which are currently NOT available at NHL are highlighted in blue

***- Tests not accredited to ISO/IEC17025:2017 standard**

ACCEPTANCE CRITERIA FOR WATER CHEMISTRY SAMPLES

The collection of water samples may seem a relatively simple task. However, to obtain representative water samples and to preserve their integrity until they are analyzed in the laboratory requires a series of steps, procedures and practices.

The objective of the sampling is to collect a portion of material, small enough in volume, to be conveniently transported and handled in the laboratory while still accurately representing the materials being sampled. The sample must be handled in such a way that no significant change in composition occurs before the test is performed.

Water samples are collected in suitable containers. A sample container must satisfy the following requirements.

- 1) It should be free from contamination.
- 2) It should not change the relevant water characteristics on contact.
- 3) It should have adequate capacity for storing the samples.
- 4) It should be resistant to impact and to internal pressure that is increased by expansion of water by release of dissolved gases at elevated temperature on storage.

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 6 of 24	

- 5) It should be labeled properly with the sampled date, time, and location of the sample and the name of the person who collected the sample.
- 6) The type of material of the container must be appropriate for the parameter requested for testing.
- 7) It is recommended that the samples be stored in chilled condition (0-4°C), sealed well and protected from light. It is also recommended that the samples be brought as soon as possible and within 6 hours of sampling.

Apart from the right type of containers, samples should be brought in adequate amounts for testing. Refer to table 1 for relevant containers for the parameters and the minimum amount of sample required for testing.

WATER SAMPLING METHODS FOR PHYSIOCHEMICAL ANALYSIS (W.H.O)

Wash both hands with soap and water. Wipe using a towel or piece of tissue before collecting the samples.

A. SAMPLING FROM A TAP OR PUMP OUTLET

- 1) Date, time, location and name of the person who collected should be labeled on the bottle before collecting the sample.
- 2) Clean the tap using a clean cloth. Wipe the outlet to remove any dirt.
- 3) Open the tap. Turn the tap at maximum flow and let the water run for 1-2 minutes
- 4) Open the cap of the sampling bottle rinse the bottle with the water to be tested.
- 5) Fill the bottle. While holding the cap and protective cover, face downwards (to prevent the entry of dust), which may contaminate the sample.
- 6) Stopper or cap the bottle.

B. SAMPLING FROM DUG WELLS AND SIMILAR SOURCES

- 1) Date, time, location, type of water and name of the person who collected should be labeled on the bottle.
- 2) Prepare the bottle with a piece of string; attach a clean weight to the sampling bottle.
- 3) Attach the bottle to the string. Take a 20m length of clean string rolled round a stick and tie it to the bottle string. Open the bottle.
- 4) Lower the bottle, weighed down by the weight into the well, winding the string slowly. Do not allow the bottle to touch the sides of the well.
- 5) Fill the bottle. Immerse the bottle completely in the water and lower it well below the surface without hitting the bottom or disturbing any sediment.
- 6) Raise the bottle. Once the bottle is judged to be filled, rewind the string on the stick to bring up the bottle.
- 7) When the bottle gets filled, close the cap tightly.

C. The label of the bottle should contain all the information below.

- Place / location:
- Sample collected by:
- Source / type of water:
- Date sampled:
- Time sampled:

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 7 of 24

Table 2- TEST AVAILABLE AND PRICES FOR THE CHEMICAL ANALYSIS OF FOOD

#	Name of the test	Price (MVR)	Method number	Amount of sample Required	Result range	Special Conditions	Time taken	
1.	Histamine analysis by Fluorometric method	900	AOAC(2023) 977.13	>100g	≤3- ≥150mg/kg	Raw fish- Temperature of the sample should be below 5°C	4 days	
2.	Aflatoxin total (kit method) *	865	Manufacturer's method (Ridascreen®Aflatoxin total)	>50g	0-≥120 ppb	-	2 days	
3.	Aflatoxin M1 (kit method) *	1000	Manufacturer's method (Ridascreen®Fast Aflatoxin M1)	>50g	125 ppt-2000 ppt (ng/kg)	-	2 days	
4.	Nitrogen and Protein content *	1585	AOAC 981.10, 16th Ed, Vol II	>10g	0.1 mg- 240 mg nitrogen	-	2 days	
5.	TVB-N (total volatile nitrogenous base) *	885	Official Journal of the European Union, Regulation(EC)NO2074/2005, L338/37,Chapter11	Must consist of about 100g of flesh taken from at least 3 different points (>100g)	5 mg/100 g - 100 mg/100 g	Sample should be properly cooled to prevent from spoiling	2 days	
6.	Ash content of foods *	535	Sugars and syrups	AOAC(2023)900.02	>20g	NA	-	3 days
			Sweetened condensed milk	AOAC(2023)920.115				
			Meat	AOAC(2023)920.153				
			Flour	AOAC(2023)923.03				
			Milk powder	AOAC(2023)930.30				
			Fruit and fruit products	AOAC(2023)940.26				
			Spices	AOAC(2023)941.12				
			Animal feed	AOAC(2023)942.05				
			Milk	AOAC(2023)945.46				
			Nuts and nut products	AOAC(2023)950.49				
Cocoa products	AOAC(2023)972.15							
General	Determination of ash content, Analytical Chemistry of Foods (James, C.S 1999), part 2, 5.4, page 75							
7.	Refractive index of oils and fats *	80	AOAC (2019) 921.08	>10ml or 10 g	1.30 - 1.74	Sample should be stored away from heat	1 day	
8.	Reducing sugars in Jams and Marmalades*	230	Volumetric determination of sugars by copper reduction (Lane and Eynon method), Analytical chemistry of foods (James, C.S 1999) 5.23, pp. 117-119	>50g	NA	-	3 days	
9.	Total sugars in Jams and Marmalades*	230	Volumetric determination of sugars by copper reduction (Lane and Eynon method), Analytical chemistry of foods (James, C.S 1999) 5.23, pp. 117-119	>50g	NA	-	3 days	
10.	Non-reducing sugar in Jams and Marmalades*	230	Volumetric determination of sugars by copper reduction (Lane and Eynon method), Analytical chemistry of foods (James, C.S 1999) 5.23, pp. 117-119	>50g	NA	-	3 days	
11.	Lactose in milk *	230	Volumetric determination of sugars by copper reduction (Lane and Eynon method), Analytical chemistry of foods (James, C.S 1999) 5.23, pp. 117-119	>50g	NA	-	3 days	
12.	Iodine content in Salt *	150	Manual of chemical analysis of food, 1998, ministry of health, Malaysia	>100g	NA	Sample should be stored away from heat	2 days	
13.	Moisture Content*	200	Analytical chemistry of foods (James, C.S 1999), part 2, 5.3, page 73	>20g	NA	Sample should be properly sealed to prevent absorption of moisture	3 days	

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 8 of 24	

14.	Total Solid Content*	200	Analytical chemistry of foods (James, C.S 1999), part 2, 5.3, page 74	>20g	NA	Sample should be properly sealed to prevent absorption of moisture	3 days
15.	Saponification value of oils and fats *	600	AOAC(2023)920.160	>20ml or 20 g	NA	Sample should be stored away from heat	2 days
16.	% Free fatty acid (as Oleic Acid) in refined oils	195	AOAC (2023) 940.28	>120 ml or 120 g	NA	Sample should be stored away from heat	2 days
17.	Acid Value in refined Oils	195	AOAC (2023) 940.28	>120 ml or 120 g	NA	Sample should be stored away from heat	2 days
18.	Iodine value of oils and fats *	435	AOAC (2019) 993.20	>30 ml	NA	Sample should be stored away from heat	2 days
19.	Sodium chloride content in seafood*	1080	AOAC (2019) 937.09	>30g	NA	-	2 days
20.	Chloride content in seafood *	815	AOAC (2019) 937.09	>30g	NA	-	2 days
21.	Peroxide value of oils and fats for animal oils and fats, vegetable oils and fats *	255	AOAC (2023) 965.33	>15ml	NA	Sample should be stored away from heat	2 days
22.	Fat (Crude)in Sea Food by acid hydrolysis *	910	AOAC (2015) 948.15	>20g	NA	-	4 days
23.	Fat in dairy products by ether extraction method*	910	AOAC (2012) 933.05, 989.05, 922.09, 952.06,	>20g	NA	-	4 days
24.	Fat content in feeding stuff by acid hydrolysis method *	1940	Official Journal of the European Communities, L257/23-25	>20g	NA	-	4 days
25.	Alcohol content (>1%) by specific gravity*	150	Analytical chemistry of foods (James C.S.1999), part 2, 6.14, page 163	>120ml	0.00-27.25 % m/v 0.00-33.09 v/v	Sample should be sealed properly to prevent evaporation	2 days
26.	Melamine content *	510	Manufacturer's method (Agra Quant®Melamine Sensitive Assay)	>200ml	20ppb- 1000ppb	-	2 days
27.	Net weight *of canned food	25	Codex alimentarius, vol 9A, 2nd ed, page 71	Whole sample	NA	-	1 day
28.	Drained weight * of canned food	45	Codex alimentarius, vol 9A, 2nd ed, page 71	Whole sample	NA	-	1 day
29.	Gross weight* of canned food	15	Codex alimentarius, vol 9A, 2nd ed, page 71	Whole sample	NA	-	1 day
30.	pH*	25	-	>10g	1-14	-	1 day
31.	Sensory evaluation *	275	-	Depending on the sample	NA	-	1 day
32.	Sensory Evaluation of Fish and Fishery Products*	275	In-House method NHL/FC-CH/SOP-TE003	>100g	NA	Sample should be properly sealed	1 day
33.	Sensory Evaluation of Egg*	275	Adapted from United States Standards, Grades, and Weight Classes for Shell Eggs AMS 56	5 nos	NA	-	1 day
34.	Sensory analysis of different types of flour*	275	In-house method NHL/CH-FC/SOP-TE 006	>100g	NA	Sample should be properly sealed	2 day
35.	Determination of particle size of flour by sieving method*	-	In-house method NHL/FC-CH/SOP-TE 009 (Adopted from AOAC (2023) 965.22)	>150g	NA	Sample should be properly sealed to prevent absorption of moisture	2 day
36.	Matters insoluble in water (Matter insoluble in salt by loss on drying	-	AOAC (2023)925.55	>50g	NA	Sample should be properly sealed to prevent	3 day

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 9 of 24	

	(Moisture method)*					absorption of moisture	
37.	Matters insoluble in Acid (Matter insoluble in salt by loss on drying (Moisture method)*	-	AOAC (2023)925.55	>50g	NA	Sample should be properly sealed to prevent absorption of moisture	3 day
38.	Determination of Sucrose by Brix Method*	-	Brix by Refractometric method	>100 ml carbonated beverages	NA	-	2 day
				>1000 ml			
				semi solids 50g			
39.	Total carbohydrate content *	3560	-	>100g	NA	-	10 days
40.	Mercury content*	115	In house method (Adopted from Manufacturer's method (Direct Mercury Analyzer, DMA-80) and USEPA Method 7473)	>10g	0.002mg/kg- 10 mg/kg	-	3 days

Note: Parameters which are currently NOT available at NHL are highlighted in blue

***- Tests not accredited to ISO/IEC17025:2017 standard**

ACCEPTANCE CRITERIA FOR FOOD CHEMISTRY SAMPLE RECEIVING

- 1) All the samples should be properly sealed to prevent contamination, absorption of moisture and evaporation of volatile compounds
- 2) All the samples should be properly labeled. The client should provide all the information (date sampled, who collected the sample, location, type of food, batch no., production date etc.) with the sample.
- 3) Frozen food products should be in frozen state.
- 4) Whenever possible, submit samples to the laboratory in the original unopened containers. If products are in bulk or in containers too large for submission to the laboratory, transfer representative portions to clean containers.
- 5) Samples should be brought in adequate amounts for testing. Refer to table 2 for amount of sample required for testing and special conditions of transport and storage of samples for respective parameters.

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 10 of 24	

TESTS AVAILABLE AND PRICES FOR THE ANALYSIS OF MICROBIOLOGY:

Table 3- FOOD MICROBIOLOGY

#	TESTS	PRICE in MVR	TEST METHOD	AMOUNT REQUIRED IN GRAMS		**TIME FOR TESTING & REPORTING
1)	Aerobic Plate Count	350	FDA BAM <i>Online</i> , 2001 (Chapter 3)	50	100	2 days
2)	Coliforms	370	FDA BAM <i>Online</i> , 2020 (Chapter 4)	50		2 days
3)	<i>Bacillus cereus</i> *	400	FDA BAM <i>Online</i> , 2012 (Chapter 14)	50		3 days
4)	<i>Clostridium perfringens</i> *	430	FDA BAM <i>Online</i> , 2001 (Chapter 16)	50		3 days
5)	<i>E.coli</i>	415	FDA BAM <i>Online</i> , 2020 (Chapter 4)	50		2 days
6)	<i>Staphylococcus aureus</i>	430	FDA BAM <i>Online</i> , 2016 (Chapter 12)	50		3 days
7)	Yeast and Mould*	365	FDA BAM <i>Online</i> , 2001 (Chapter 18)	50	50	7 days
8)	<i>Salmonella</i>	540	FDA BAM <i>Online</i> , 2023 (Chapter 5)	50	50	8 days
9)	<i>Shigella</i> *	480	FDA BAM <i>Online</i> , 2001 (Chapter 6)	50	50	4 days
10)	<i>Listeria monocytogenes</i>	460	FDA BAM <i>Online</i> , 2022 (Chapter 10)	50	50	12 days
11)	<i>Campylobacter</i> *	470	FDA BAM <i>Online</i> , 2001 (Chapter 7)	50	50	2 days
12)	<i>Vibrio cholerae</i> *	525	FDA BAM <i>Online</i> , 2004 (Chapter 9)	50	50	3 days
13)	<i>Vibrio parahaemolyticus</i>	525	FDA BAM <i>Online</i> , 2004 (Chapter 9)	50		3 days

Table 4- ENVIRONMENTAL SWAB SAMPLES

#	TESTS	PRICE in MVR	TEST METHOD	TYPE OF DILUENT TO BE USED [#]	**TIME FOR TESTING & REPORTING
1)	Aerobic Plate Count*	350	FDA BAM <i>Online</i> , 2001 (Chapter 3)	Ringers Salt Solution (RSS)	2 days
2)	Coliforms*	370	FDA BAM <i>Online</i> , 2020 (Chapter 4)		2 days
3)	<i>Bacillus cereus</i> *	400	FDA BAM <i>Online</i> , 2012 (Chapter 14)		3 days
4)	<i>Clostridium perfringens</i> *	430	FDA BAM <i>Online</i> , 2001 (Chapter 16)		3 days
5)	<i>E.coli</i> *	415	FDA BAM <i>Online</i> , 2020 (Chapter 4)		2 days
6)	<i>Staphylococcus aureus</i> *	430	FDA BAM <i>Online</i> , 2016 (Chapter 12)		3 days
7)	<i>Salmonella</i> *	540	FDA BAM <i>Online</i> , 2023 (Chapter 5)	Dey-Engley Neutralizing Broth (DEN)	8 days
8)	<i>Shigella</i> *	480	FDA BAM <i>Online</i> , 2001 (Chapter 6)	Shigella Broth (SB)	4 days
9)	<i>Listeria monocytogenes</i> *	460	FDA BAM <i>Online</i> , 2022 (Chapter 10)	Buffered Listeria Enrichment Broth (BLEB)	12 days
10)	<i>Vibrio cholerae</i> *	525	FDA BAM <i>Online</i> , 2004 (Chapter 9)	Alkaline Peptone Water (APW)	3 days
11)	<i>Vibrio parahaemolyticus</i> *	525	FDA BAM <i>Online</i> , 2004 (Chapter 9)		3 days
12)	Yeast and Mould*	365	FDA BAM <i>Online</i> , 2001 (Chapter 18)	0.1% Peptone Water	7 days

[#]Please request for the diluents at least 2 days before the required date

Table 5- WATER MICROBIOLOGY:

#	TESTS	PRICE in MVR	TEST METHOD	AMOUNT REQUIRED	**TIME FOR TESTING & REPORTING
1.	<i>E.coli</i> /100ml	440	Environment Agency, The Microbiology of Drinking Water, United Kingdom, 2009, Part 4	200ml	2 days
2.	Coliforms/100ml	350	Environment Agency, The Microbiology of Drinking Water, United Kingdom, 2009, Part 4	200ml	2 days
3.	Total Viable Count at 22°C (cfu/ml)	260	ISO 6222:1999	10 ml	3 days
4.	Total Viable Count at 36°C (cfu/ml)	260	ISO 6222:1999	10 ml	2 days
5.	<i>Vibrio cholerae</i> /100ml*	530	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 22nd Edition, 2012, 9260 H	200ml	2 days
6.	<i>Salmonella</i> /100ml*	570	Environment Agency, The Microbiology of Drinking Water, 2006, Part 9	200ml	4 days

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam		
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet				
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora			
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 11 of 24		

7.	Shigella /100ml*	520	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 22nd Edition, 2012, 9260 E	200ml	4 days
8.	<i>Staphylococcus aureus</i> /100ml*	415	HPA Standard Method, 2005, W5 Issue 3.3	200ml	3 days
9.	Enterococci/ 100ml	330	ISO 7899-2:2000	200ml	2 days
10.	<i>Clostridium perfringens</i> /100ml	400	Environment Agency, The Microbiology of Drinking Water, United Kingdom, 2010, Part 6	200ml	3 days
11.	<i>Pseudomonas aeruginosa</i> /100ml	370	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017, 9213 E	For natural / potable water - 400ml For Swimming Pool Water – 1000 ml	3 days

Note: -Parameters which are currently NOT available at NHL are highlighted in blue.

***- Tests not accredited to ISO/IEC17025:2017 standard.**

**** -Please note that the Time for Testing and Reporting given in the above tables are for Positive test results and hence Reports can be issued within 4 days for Negative Test results except for Yeast and Mould.**

-Additional days shall be included in Testing and Reporting Time for Samples that are requested for Incubation (Eg: Canned fish are incubated at 37 °C for 14 days and at 55 °C for 05 days)

- Water Samples should reach the laboratory within 24hrs of sample collection in chilled condition (0-4 °C).

COLLECTION OF FOOD SAMPLES FOR MICROBIOLOGY

The adequacy and condition of the sample or specimen received for examination are of primary importance.

Whenever possible, submit samples to the laboratory in the original unopened containers. If products are in bulk or in containers too large for submission to the laboratory, transfer representative portions to sterile containers under aseptic conditions. There can be no compromise in the use of sterile sampling equipment and the use of aseptic technique.

Sterilize one-piece stainless steel spoons, forceps, spatulas, and scissors in an autoclave or dry-heat oven. Use of a propane torch or dipping the instrument in alcohol and igniting is dangerous and may be inadequate for sterilizing equipment.

Use containers that are clean, dry, leak-proof, wide-mouthed, sterile, and of a size suitable for samples of the product. Containers such as plastic jars or metal cans that are leak-proof may be hermetically sealed. Whenever possible, avoid glass containers, which may break and contaminate the food product. For dry materials, use sterile metal boxes, cans, bags, or packets with suitable closures. Sterile plastic bags (for dry, unfrozen materials only) or plastic bottles are useful containers for line samples. Take care not to overfill bags or permit puncture by wire closure. Identify each sample unit (defined later) with a properly marked strip of masking tape. Do not use a felt pen on plastic because the ink might penetrate the container. Amount of samples has to be taken as per the parameters to be tested.

TRANSPORT OF FOOD SAMPLES TO THE LABORATORY FOR MICROBIOLOGICAL ANALYSIS

Deliver samples to the laboratory promptly with the original storage conditions maintained as nearly as possible. Make a record for all samples of the times and dates of collection and of arrival at the laboratory. Dry or canned foods that are not perishable and are collected at ambient temperatures that need not be refrigerated. Transport frozen or refrigerated products in approved insulated containers of rigid construction so that they will arrive at the laboratory unchanged. Collect frozen samples in pre-chilled containers.

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 12 of 24

Place containers in a freezer long enough to chill them thoroughly. Keep frozen samples solidly frozen at all times. Cool refrigerated samples, except shellfish and shell stock, in ice at 0-4°C and transport them in a sample chest with suitable refrigerant capable of maintaining the sample at 0-4°C until arrival at the laboratory. Do not freeze refrigerated products. Unless otherwise specified, refrigerated samples should be analyzed within 36 h after collection.

CONDITION OF SAMPLES CONTAINERS FOR FOOD MICROBIOLOGICAL ANALYSES

Check sample containers for gross physical defects. Carefully inspect plastic bags and bottles for tears, pinholes and puncture marks. Any cross-contamination resulting from one or more of the above defects would invalidate the sample. Samples should be adequately sealed and labeled.

COLLECTION OF WATER FOR MICROBIOLOGICAL EXAMINATION.

It is important to take water samples carefully because this can be vital. Care must be taken to avoid contamination during sampling. At the sampling site, if there are other samples being taken (e.g. for chemical testing), the sample for bacteriological testing should always be taken first.

1. CONTAINERS FOR WATER MICROBIOLOGICAL SAMPLES:

- i. These should be sampled to sterile bottles. Samples brought in non-sterile bottles to laboratory cannot be accepted.
- ii. Sterile bottles are released to clients upon request.
- iii. To request for bottles call the Sample Receiving Counter at 3034247 or email us at nhl@health.gov.mv
- iv. Laboratory will queue up and call or inform via email when bottles are available.
- v. Regular clients are suggested to have their own bottles with the following specs.
- vi. Bottles made of material that are autoclavable (can withstand 121°C temperature and 15lb pressure) bottles with autoclavable caps (caps that are made of material that can withstand 121°C temperature and 15lb pressure) (e.g. polypropylene with plug seal cap)
- vii. Client bottles with samples will be sterilized and returned to client 3 days after the report date.
- viii. Empty client bottles brought to laboratory will be sterilized and returned in 3 working days.
- ix. If sterilization of client bottles takes longer than the above-mentioned periods, the client will be informed.
- x. Chlorinated water samples shall be collected in sterilized glass bottles / bags containing Sodium thiosulphate.

2. GENERAL POINTS ON WATER SAMPLING:

- i. DO NOT open the bottle (or alternative sample container) until immediately before filling.
- ii. DO NOT rinse out the bottle before taking a sample, especially when sampling chlorinated water, as it contains a chlorine neutralizer (sodium thiosulphate).
- iii. When removing cap or stopper from the sample bottle, hold it in such a way that the fingers do not come into contact with its inside surface or with the neck of the bottle. Do not put down the cap or stopper in such a way that will allow it to become contaminated.
- iv. Hold the bottle near the base rather than near the neck.
- v. Fill the bottle immediately with sample and replace the closure, observing the same precautions as for opening.
- vi. DO NOT COMPLETELY FILL THE BOTTLE but leave about 2.5 cm (1 inch) air space.

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 13 of 24

3. SAMPLING FROM A TAP

- i. Wash hand with soap and water, dry with a clean towel or paper towel.
- ii. If the tap is metal, than flame the outlet using cotton wool dipped in surgical spirit.
- iii. If the tap is plastic, wipe the outlet carefully using a cotton wool dipped in surgical spirit.
- iv. Allow the water to run for 2 minutes.
- v. Collect at least 250ml (leave an air space in the bottle) of water in to the prepared bottle and cap tightly.
- vi. Label the bottle completely.

4. SAMPLING FROM A WELL:

- i. Wash hand (as above)
- ii. Attach a long string to the bottle.
- iii. Remove the cap and lower the bottle into the well.
- iv. Hold the bottle near its base and plunge it, neck downwards, to about 20 cm below surface.
- v. Collect at least 250ml (leave an air space in the bottle) of water.
- vi. Pull up the bottle and replace the cap.
- vii. Wipe outside, and label the bottle completely.

5. SAMPLING FROM SWIMMING POOL AND OTHER SUCH SOURCES:

- i. Wash hand (as above)
- ii. Remove the cap.
- iii. Hold the bottle in such a way that your hand does not come in contact with the mouth of the bottle.
- iv. Dip into the water about 20cm below (the bottle should be in a slanting position)
- v. If there is water current, then place the bottle facing towards the water current while collecting the water.
- vi. Collect at least 250ml (leave an air space in the bottle) of water.
- vii. Take the bottle and replace the cap.
- viii. Wipe outside, and label the bottle completely.

6. TRANSPORT TO THE LABORATORY:

- i. The sample should be transported to the laboratory in an ice box protected from light and should reach the laboratory within 24 hours.
- ii. The label of the bottle should contain all the information below.
 - o Place / location:
 - o Sample collected by:
 - o Source / type of water:
 - o Date sampled:
 - o Time sampled:

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 14 of 24

COLLECTION OF SURFACE SWAB FOR MICROBIOLOGICAL ANALYSIS

1. Hold a sterilize aluminum template firmly over the surface to delineate the area to be sampled.
2. Dip a cotton wool swab in a 9ml of diluent solution. If sanitizing agent has been used for cleaning the surface, the diluents should contain 0.05% sodium thiosulphate for neutralization purposes. Squeeze out the excess fluid against the side of the bottle, and rub the moisten swab thoroughly over the entire test area, turning the swab in order to maximize its ability to pick the organisms.
3. Break off the cotton wool end of this swab into 9ml diluent.
4. Shake the diluent bottle containing the swabs.
5. Swab sample should be transport to the laboratory in a cool box in an aseptic condition.
6. Swab samples shall be collected in appropriate diluents (Refer to Table 4) depending on the type of parameter to be tested.
7. Please request for the diluents at least 2 days before the required date.
8. Swab samples with less than 9ml diluent will not be accepted.
9. **Transport to the laboratory:** The sample should be transported to the laboratory in an ice box protected from light and should reach the laboratory within 24 hours.
10. **The label of the bottle should contain all the information below.**
 - Place / location:
 - Sample collected by:
 - Date sampled:
 - Time sampled:

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 15 of 24

IN GENERAL - FOR ALL TYPES OF SAMPLES:

The label of the bottle or container should contain all the information below.

- Place / location:
 - Sample collected by:
 - Source / type of water:
 - Date sampled:
 - Time sampled:
1. Parameters which are currently unavailable at NHL are highlighted in blue.
 2. Pharmaceutical samples and tests need to be negotiated and discussed with the laboratory before receiving to the laboratory. This is to ensure the availability of chemicals and equipment.
 3. Two samples are requested to be sent to the laboratory for each test (water and food) so that tests can be repeated if necessary.
 4. During the time of sample receiving to the laboratory a responsible person needs to check and sign in the requisition form on behalf of the requesting company or the customer. The remaining of the samples will be returned to the client if requested on the date of the report issue.
 5. The fees for testing should be paid immediately upon signing the requisition forms. Payment should be made to the cash receiving counter of Ministry of Health. Unpaid samples will not be processed and will be discarded.
 6. After the issuing of the report the samples will be disposed if laboratory is not informed otherwise.
 7. Time for sample receiving is from 08:00 hours to 12:00 hours on official working days.
 8. Reports can be collected during official hours of the report date given unless otherwise informed.
 9. Sterilized bottles, for microbiological examination of water, will be issued in the order of request depending on the availability of the bottles.
 10. Bottles of clients would be available after two days of report date.
 11. For further queries please contact:
National Health Laboratory,
Maldives Food and Drug Authority,
Roshanee Building,
Sosun Magu, Male',
Republic of Maldives.
Tel: +960 3014346, 3034247
Email: nhl@health.gov.mv , thooma@health.gov.mv

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 16 of 24

Table 6- National Criteria for Drinking Water

Chemical and Microbiological Criteria for Drinking Water

Chemical criteria

Parameter	Reference Range
Free Chlorine	0.04 – 0.2 mg/l
pH	6.5 – 8.5
Physical Appearance	Clear & Colorless
Electrical Conduction	<1000 µs/cm
Suspended Solids	5-750 mg/L
Turbidity	<1 NTU
Total Dissolved Solids	<500 mg/L
Chlorides	<200 mg/l
Nitrates	<50 mg/l
Ammonia	<0.02 – 2.50 mg/l
Iron	<0.3 mg/l
Hydrogen Sulphide	0.05 mg/l
Total Hardness	<75 mg/l
Sulphate	<250 mg/l
Manganese	0.1 mg/l
Total Petroleum Hydrocarbon	0
Sodium	<200 mg/l
Potassium	0 – 50 mg/l
Calcium Hardness	<60 mg/l
Bromine	0.05 – 4.50 mg/l
Mercury	<0.001 mg/l
Lead	<0.01 mg/l
Copper	<2 mg/l
Boron	<0.3 mg/l
Arsenic	<0.01 mg/l
Fluoride	<1.5 mg/l
Phenolic compounds	0.002 – 0.2 mg/l
Anionic Detergents	0.002 – 0.275 mg/l
Cadmium	<0.003 mg/l
Chromium	<0.05 mg/l
Cyanide	<0.07 mg/l

Microbiological Criteria

Parameter	Acceptable Limit
Total Coliform Count	0/100ml
Faecal Coliform Count	0/100ml
Total Viable Count 22°C	100cfu/ml
Total Viable Count 36°C	20cfu/ml
<i>Salmonella typhi</i>	Not Detected
<i>Vibrio cholerae</i>	Not Detected
<i>Shigella</i> spp.	Not Detected
Enterococci	0/100ml

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 17 of 24

Table 7- Tests Available and Prices for the Chemical Analysis of Pharmaceutical Products

#	TEST	PRICE in MVR	TEST METHOD	Amount Required (tablets/capsules)	TIME FOR TESTING
1.	Identification of Allopurinol by FTIR	190	BP,USP, IP	10	3 days
2.	Quantitative analysis of Allopurinol by UV Spectrophotometer	600	BP,USP, IP	20	3 days
3.	Identification of Amoxicillin by FTIR	220	BP,USP, IP	10	3 days
4.	Quantitative analysis of Amoxicillin by UV Spectrophotometer	780	BP,USP, IP	20	3 days
5.	Identification of Ascorbic acid by TLC	560	BP,USP, IP	10	3 days
6.	Identification of Ascorbic acid by FTIR	180	BP,USP, IP	10	3 days
7.	Quantification of Ascorbic acid by Titrimetric Method	400	BP,USP, IP	20	3 days
8.	Identification of Aspirin by FTIR	180	BP,USP, IP	10	3 days
9.	Quantification of Aspirin by Titration	460	BP,USP, IP	20	3 days
10.	Identification of Atenolol by FTIR	190	BP,USP, IP	10	3 days
11.	Quantitative analysis of Atenolol by UV Spectrophotometer	1200	BP,USP, IP	20	3 days
12.	Identification of Bisacodyl by FTIR	180	BP,USP, IP	10	3 days
13.	Quantitative analysis of Bisacodyl by UV Spectrophotometer	1020	BP,USP, IP	20	3 days
14.	Identification of Carbamazepine by chemical test (Color)	400	BP,USP, IP	10	3 days
15.	Identification of Carbamazepine by FTIR	450	BP,USP, IP	10	3 days
16.	Quantitative analysis of Carbamazepine by UV Spectrophotometer	970	BP,USP, IP	20	3 days
17.	Identification of Carbimazole by FTIR	200	BP,USP, IP	10	3 days
18.	Quantitative analysis of Carbimazole by UV Spectrophotometer	560	BP,USP, IP	20	3 days
19.	Identification of Chlorpheniramine by (Color test)	300	BP,USP, IP	10	3 days
20.	Quantitative analysis of Chlorpheniramine by UV Spectrophotometer	1025	BP,USP, IP	20	3 days
21.	Identification of Diazepam by Chemical test (Color Test)	390	WHO Basic Tests for Pharmaceutical Dosage forms 1991	10	3 days
22.	Quantitative analysis of Diazepam by UV Spectrophotometer	750	BP,USP, IP	20	3 days
23.	Identification of Diclofenac by FTIR	190	BP,USP, IP	10	3 days
24.	Quantitative analysis of Diclofenac by UV Spectrophotometer	930	BP,USP, IP	20	3 days
25.	Identification of Frusemide by Chemical test (Colour)	460	WHO Basic Tests for Pharmaceutical Dosage forms 1991	10	3 days

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam		
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet				
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora			
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee		Page No: Page 18 of 24	

26.	Identification of Frusemide by FTIR	340	BP,USP, IP	10	3 days
27.	Quantitative analysis of Frusemide by UV Spectrophotometer	460	BP,USP, IP	20	3 days
28.	Identification of Glibenclamide by FTIR	190	BP,USP, IP	10	3 days
29.	Quantitative analysis of Glibenclamide by UV Spectrophotometer	890	BP,USP, IP	20	3 days
30.	Identification of Ibuprofen by TLC	1640	BP,USP, IP	10	3 days
31.	Identification of Ibuprofen by FTIR	200	BP,USP, IP	10	3 days
32.	Quantification of Ibuprofen by Titration	1450	BP,USP, IP	20	3 days
33.	Identification of Mefenamic acid by FTIR	205	BP,USP, IP	10	3 days
34.	Identification of Mefenamic acid by Chemical test (Color)	300	BP,USP, IP	10	3 days
35.	Quantification of Mefenamic acid by Titrimetric method	510	BP,USP, IP	20	3 days
36.	Identification of Metronidazole by FTIR	190	BP,USP, IP	10	3 days
37.	Quantitative analysis of Metronidazole by UV Spectrophotometer	715	BP,USP, IP	20	3 days
38.	Identification of Naproxen by FTIR	190	BP,USP, IP	10	3 days
39.	Quantification of Naproxen by Titration	500	BP,USP, IP	20	3 days
40.	Quantitative analysis of Naproxen by UV Spectrophotometer	735	BP,USP, IP	20	3 days
41.	Identification of Paracetamol by Chemical test (Colour)	430	WHO Basic Tests for Pharmaceutical Dosage forms 1991	10	3 days
42.	Identification of Paracetamol by TLC	810	BP,USP, IP	10	3 days
43.	Identification of Paracetamol by FTIR	180	BP,USP, IP	10	3 days
44.	Quantification of paracetamol by Titrimetric method	625	BP,USP, IP	10	3 days
45.	Quantitative analysis of Paracetamol by UV Spectrophotometer	590	BP,USP, IP	20	3 days
46.	Identification of Povidone Iodine by Chemical test (Color)	300	BP,USP, IP	10	3 days
47.	Quantification of Povidone Iodine Titration	170	BP,USP, IP	20	3 days
48.	Identification of Prednisolone by Chemical test (Color)	375	WHO Basic Tests for Pharmaceutical Dosage forms 1991	10	3 days
49.	Identification of Prednisolone by TLC	1260	BP,USP, IP	10	3 days
50.	Identification of Prednisolone by FTIR	180	BP,USP, IP	10	3 days
51.	Quantitative analysis of Prednisolone by UV Spectrophotometer	965	BP,USP, IP	20	3 days

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam		
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet				
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora			
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 19 of 24		

**SAMPLE DETAILS DECLARATION FORM – FOR CLIENTS STERILIZING BOTTLES
INDEPENDENTLY**

From: **COMPANY ADDRESS / Contact number/ Email**

To: National Health Laboratory,
Maldives Food and Drug Authority,
Ministry of Health, Roashanee Building,
Sosun Magu, Male’ 20184, Maldives.

Date: **XX/XX/XXXX**

Dear Sir,

I, name of the person sending samples (Contact no.: _____) on behalf of Company name, would like to test the following samples brought to your laboratory.

#	Location/ Sample/ Batch No. / Lot No. / GRN No. (Other details)	Collecting / Sampling Details			Type (Water, Food or Swab)	Test Parameters	
		Manufactured Date/Collection Date	Time	Name of Person Collecting		Micro	Chem

I hereby declare that the sterilization of bottles was conducted independently and in accordance with established procedures, on **DATE OF STERLIZATION**.

SIGN

(SIGNATURE OF THE PERSON REQUESTING TESTING)

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 20 of 24	

STAMP (IF COMPANY)

**SAMPLE DETAILS DECLARATION FORM – FOR CLIENTS STERILIZING BOTTLES FROM
NHL**

From: **COMPANY ADDRESS / Contact number/ Email**

To: National Health Laboratory,
Maldives Food and Drug Authority,
Ministry of Health, Roashanee Building,
Sosun Magu, Male’ 20184, Maldives.

Date: **XX/XX/XXXX**

Dear Sir,

I, **name of the person sending samples (Contact no.: _____)** on behalf of **Company name**, would like to test the following samples brought to your laboratory.

#	Location/ Sample/ Batch No. / Lot No. / GRN No. (Other details)	Collecting / Sampling Details			Type (Water, Food or Swab)	Test Parameters	
		Manufactured Date/Collection Date	Time	Name of Person Collecting		Micro	Chem

SIGN

(SIGNATURE OF THE PERSON REQUESTING TESTING)

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet			
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora		
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 21 of 24	

STAMP (IF COMPANY)

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 22 of 24

SAMPLE DETAILS DECLARATION FORM – FOR MTG PHARAMCEUTICAL TESTING

From: **SECTION ADDRESS / Contact number/ Email**

To: National Health Laboratory,
Maldives Food and Drug Authority,
Ministry of Health, Roashanee Building,
Sosun Magu, Male' 20184, Maldives.

Date: **XX/XX/XXXX**

Dear Sir,

I, **name of the person sending samples (Contact no.: _____)** on behalf of **MTG/MFDA**, would like to test the following samples brought to your laboratory.

Product No.:	Generic Name:	Product Name:	Manufacture/ Company Name :	Dosage Form :	Strength:	Batch No :	Manufactured date :	Expiry Date :	Quantity:	Client ID Sample Identification Number:	Testing Parameters:

SIGN
(SIGNATURE OF THE PERSON REQUESTING TESTING)
STAMP (IF COMPANY)

National Health Laboratory, Maldives Food and Drug Authority			Authorized by: Head of NHL / Thooma Adam		
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet				
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora			
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee		Page No: Page 23 of 24	

Table 8: TRAININGS CONDUCTED AT NATIONAL HEALTH LABORATORY

#	Details	Price in MVR
MICRO TRAININGS		
1.	For water sample collection	250
2.	For total and faecal testing	700
3.	Bottle breakage (suggest selling bottles not breakage/they could reuse)	1500
FOOD CHEMISTRY TRAININGS		
4.	Histamine trainings	2500
5.	Water chemistry trainings	4500
6.	For water sample collection	200
TRAINING FOR WATER CHEMISTRY /MONTHLY PARAMETERS		
7.	pH	200
8.	Temperature	200
9.	Total Dissolved Solids	300
10.	Electrical Conductivity	300
11.	Chloride	400
12.	Nitrate	300
13.	Ammonia	600
14.	Turbidity	200
15.	Iron	250
16.	Free chlorine	350
MISCELLANEOUS TRAININGS		
17.	Miscellaneous laboratory trainings – short 1-2 days	2000
18.	Miscellaneous laboratory trainings – medium 3-5 days	3000
19.	Miscellaneous laboratory trainings – long 6 to 10 days	5000
20.	Sample packaging and referral abroad (consumable and staff time) Male'	2000
21.	Sample packaging and referral abroad (consumable and staff time) outside Male'	4000 and travel + travel related expenses

National Health Laboratory, Maldives Food and Drug Authority		Authorized by: Head of NHL / Thooma Adam	
Rec. No: NHL/QM- Li/IS38	Rec. Name: Information Sheet		
Issue No: 01	Issue Date: 26.03.2008	Prepared by: Quality Manager / Fathimath Safoora	
Revision No: 113	Revised Date: 07/09/2023	Approved by: Technical Committee	Page No: Page 24 of 24