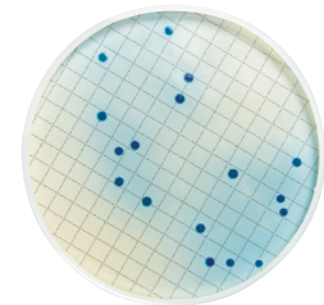


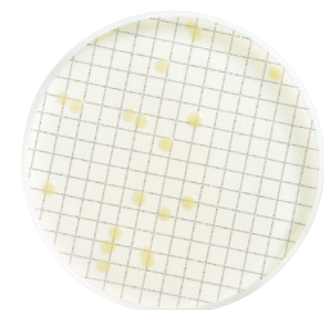
Tools to Test Your Water

CULTURE MEDIA – BROTH

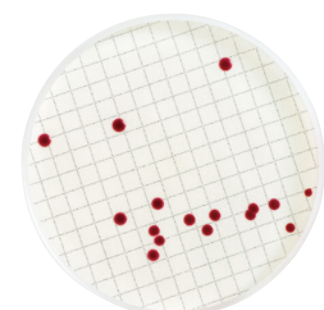
m-FC Broth	
Catalogue Nos.	MHAO OOP 2F (m-FC with Rosolic Acid) MHAO OFC R2 (m-FC without Rosolic Acid)
Application	Enumeration of fecal coliform bacteria by the membrane filtration technique at elevated temperatures for waste or effluent waters.
Incubation Time and Temperature	24 ± 2 H at 44.5 ± 0.2 °C
Regulatory Conformance	Standard Methods*
Typical Colony Appearance	Fecal coliforms appear blue, other colonies appear gray to cream colored. In some rare cases, a membrane may have confirmed fecal coliforms that are pink in color.
pH	7.4 ± 0.2 at 25 °C



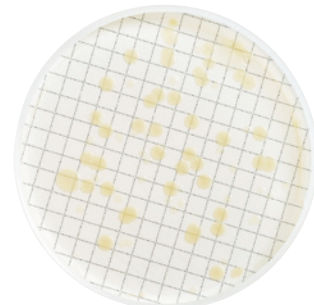
Tryptone Glucose Extract (TGE) Broth	
Catalogue No.	MHAO OOP 2T
Application	A non-selective medium to detect total heterotrophic microorganisms in water and other liquids.
Incubation Time and Temperature	48 to 72 H at 25 - 35 °C
Typical Colony Appearance	Colonies appear clear to creamy white, some may produce pigment.
pH	7.0 ± 0.2 at 25 °C



Tryptone Glucose Extract (TGE) Broth with Indicator (TTC)	
Catalogue No.	MHAO OP2 TT
Application	A non-selective medium to detect total heterotrophic microorganisms in water and other liquids. The indicator turns colonies red, allowing easy visualization.
Incubation Time and Temperature	48 to 72 H at 25 - 35 °C
Typical Colony Appearance	Red
pH	7.0 ± 0.2 at 25 °C



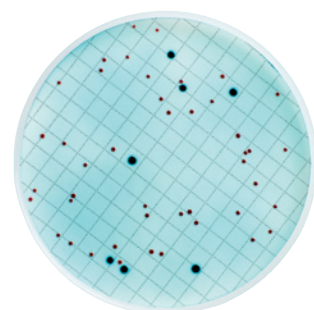
Heterotrophic Plate Count (HPC) Broth	
Catalogue No.	MHAO OOP 2S
Application	Recovery of stressed heterotrophic bacteria found in various types of waters.
Incubation Time and Temperature	48–72 H at 25–35 (Prior to use, warm the media at 30–50 °C until liquefied. Do not microwave.)
Regulatory Conformance	Standard Methods*
Typical Colony Appearance	Clear to white colonies, some may produce pigment
pH	7.1 +/- 0.2 at 25 °C



m-Endo Total Coliform Broth	
Catalogue No.	MHAO OOP 2E
Application	Used for the recovery of E. coli and coliform organisms.
Incubation Time and Temperature	24 H (16–18 for non-disinfected samples) at 35 ± 0.5 °C
Regulatory Conformance	Standard Methods*
Typical Colony Appearance	Red colonies with green metallic sheen.
pH	7.2 ± 0.2 at 25 °C



m-ColiBlue24® Broth	
Catalogue No.	MOOP MCB 24
Application	Used to detect both total coliforms and E. coli in water and beverages. This broth contains special inhibitors that prevent the growth of non-coliform bacteria but does not inhibit the growth of stressed organisms.
Incubation Time and Temperature	24 H at 35 ± 0.5 °C
Regulatory Conformance	EPA approved for drinking and ambient water.
Typical Colony Appearance	E. coli form blue colonies. Total coliforms form red and blue colonies and all other colonies are non-coliforms.
pH	7.0 ± 0.2 at 25 °C



* Standard Methods for the Examination of Water and Wastewater, 21st Edition.

MEDIA IN PLASTIC AMPOULES (unit size 2 mL)

Target Microorganisms	Product Name	Qty/Pk	Catalogue No.
Fecal coliform	m-FC Broth with Rosolic acid	50	MHAO OOP 2F
Fecal coliform	m-FC Broth without Rosolic acid	50	MHAO OFC R2
Heterotrophic and thermophilic bacteria (TGE)	Tryptone Glucose Extract Broth	50	MHAO OOP 2T
Aerobic heterotrophic bacteria	Tryptone Glucose Extract Broth with TTC	50	MHAO OP2 TT
Heterotrophic bacteria (stressed environment)	HPC Broth	50	MHAO OOP 2S
Total coliform	m-Endo Total Coliform Broth	50	MHAO OOP 2E
Total coliforms and <i>E. coli</i>	m-ColiBlue24® Broth	50	MOOP MCB 24



How to Count Colonies on a Gridded Membrane

Push/Pull Method

Counting microorganism colonies on a filter surface is easy, but a few simple rules must be applied.

Procedure

- For the most accurate results, examine filters immediately after incubation. Simply open the Petri dish and place under a stereomicroscope or on a benchtop for counting.
- When performing counts, colonies in each and every grid square should be counted.
- Count systematically and use the grid lines to proceed from top to bottom and right to left according to the diagrams.

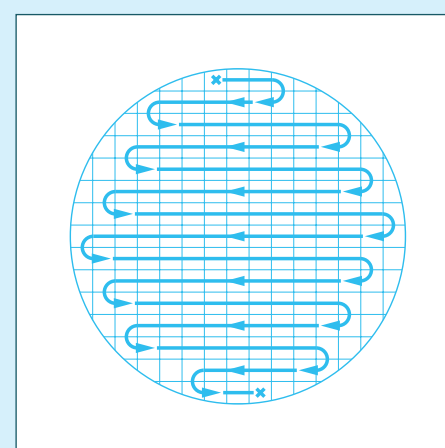


Diagram 1. Use the grid system on the filter surface to locate colonies along the counting path.

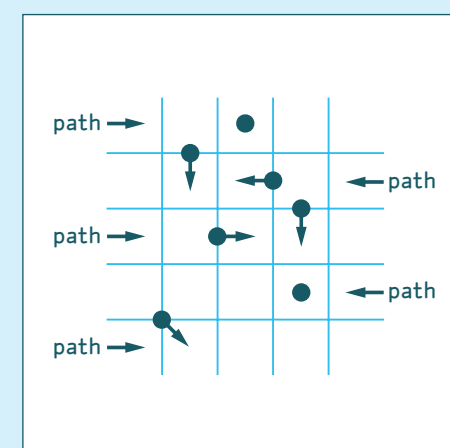
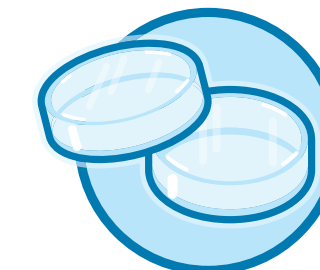


Diagram 2. This diagram offers suggestions indicated by arrows pointing to various squares into which the borderline colonies may be "pushed or pulled" for counting convenience.

PETRI DISHES

Petri Dishes and Absorbent Pads

Petri-Pad sterile 47-mm Petri dishes with pre-loaded pads come fully ready to use. No risk of prior contamination and hassles loading a separate pad. Pads conveniently absorb 2-mL of liquid media.



Description	Diameter	Qty/Pk	Catalogue No.
Aseptic Petri dishes (with pads)	47	150	PD2004700
Aseptic Petri dishes (with pads)	47	600	PD2004705
Sterile Petri dishes (with pads)	47	150	PD2004750
Sterile Petri dishes (with pads)	47	600	PD2004755

Pad Dispenser

Description	Qty/Pk	Catalogue No.
Canister of 100 absorbent pads	10	AP10 045 S0
Pad dispenser with 2 canisters of 100 absorbent pads	1	AP10 045 S1

MEMBRANE FILTERS FOR MICROBIAL ANALYSIS

EZ-Pak® Membranes and Membrane Dispenser

Made of mixed esters of cellulose, these sterile, ready-to-use gridded membranes are easily loaded onto the EZ-Pak membrane dispenser. Press the lever to unpack and dispense one sterile membrane, eliminating the risk of contamination from handling membranes and packaging.



EZ-Pak Membranes		
Description	Qty/Pk	Catalogue No.
EZ-Pak Membrane Dispenser	1	EZDISP001

EZ-Pak Membrane: 600 (4 bands of 150 filters)			
Pore Size (µm)	Diameter (mm)	Filter Color	Catalogue No.
0.45	47	white	EZHA WG4 74
0.45	47	black	MSPO 008 14
0.45	47	green	EZHA GG4 74
0.7	47	white	EZHC WG4 74

S-Pak™ Filters

Made of mixed esters of cellulose, these sterile, individually packed, gridded membranes have been optimized for MF method of microbiological analysis of water.



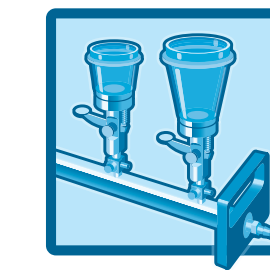
S-Pak Filters: 600 (4 boxes of 150 membranes)			
Pore Size (µm)	Diameter (mm)	Filter Color	Catalogue No.
0.45	47	black	HABG 047 S6
0.45	47	white	HAWG 047 S6
0.7	47	white	HCWG 047 S6

S-Pak Filters with 2 Pad Dispensers and 600 Absorbent Pads			
Pore Size (µm)	Diameter (mm)	Filter Color	Catalogue No.
0.45	47	white	HAWG 647 SP

DISPOSABLE FILTRATION DEVICES

Microfil® Disposable Filtration Devices

A cost-effective system uses pre-sterilized, ready-to-use disposable plastic funnels in conjunction with S-Pak or EZ-Pak membranes on a patented filtration manifold and support system.



Equipment Description	Catalogue No.
Microfil 3 place manifold and support	MIAC 03P 01
Microfil funnel dispenser 100 mL	MIAC FD1 01
Microfil support with valve 1/4 in.	MIAC 014 01
Microfil one place manifold and support	MIAC 01P 01
Hand vacuum pump	MIAC HVP 01

100 mL Microfil Funnels and 47 mm Gridded MCE S-Pak Filters (150 Microfil Funnels and 150 Membranes)			
Pore Size (µm)	Color	Applications	Catalogue No.
0.45	black	General microbiological analysis	MIHA BG1 00
0.45	white	General microbiological analysis	MIHA WG1 00
0.7	white	Chlorinated effluents	MIHC WG1 00

100 mL Microfil Funnels and 47 mm EZ-Pak Filters (150 Microfil Funnels and 150 EZ-Pak Membranes)			
Pore Size (µm)	Color	Applications	Catalogue No.
0.45	white	General microbiological analysis	MZHA WG1 01
0.45	black	General microbiological analysis	MZHA BG1 01

Microfil V Filtration Devices

Ready-to-use Microfil V disposable plastic filtration devices eliminate the need for flaming, alcohol and assembly associated with traditional glass filtration. With a built-in membrane, these pre-sterilized devices save time and make testing easier. Fits standard manifold with a number 8 stopper.



Each box contains three trays of eight Microfil V filter funnels		
Description	Qty/Pk	Catalogue No.
Microfil V—100 mL; 0.45 µm MCE, white gridded	24	MVHA WG1 24
Microfil V—100 mL; 0.45 µm MCE, black gridded	24	MVHA BG1 24