

# Microbiological analysis with Cytiva

Bacterial count and/or detection

## MBS I system and membranes

The MBS I filtration system is designed for laboratories that handle high numbers of samples for microbiological quality control.

### Membranes

We provide a wide and versatile range of filtration membranes that deliver high-quality performance consistently. The appropriate membrane filter choice will depend on the methodology being followed. ME and MicroPlus membranes are sterile and individually packed.

<b>Membrane material</b>	Cellulose mixed ester	High-flux cellulose nitrate	Nylon (polyamide)	Polycarbonate
<b>Product name</b>	ME	MicroPlus	NL	Nuclepore™
<b>Color</b>	White, black or green	White or black	White	White or black
<b>Pore size</b>	0.2 µm/0.45 µm/ 0.6 µm/0.8 µm	0.45 µm	0.2 µm/0.45 µm	0.2 µm/0.4 µm (and other pore sizes)
<b>Application examples</b>	<i>Enterococcus</i> , <i>E. coli</i> , <i>Clostridia</i> , Fecal coliforms, <i>Staphylococcus</i> , <i>Pseudomonas aeruginosa</i> , etc.		<i>Legionella</i>	<i>Legionella</i>

## Workflow



(A) Tight sealing of funnel and membrane reducing any cross contamination by special sealing technique.



(B) Flexibility.

- Volume — either 100 mL or 350 mL
- Material — either ABS or PP
- PP version can be autoclaved up to 50 times

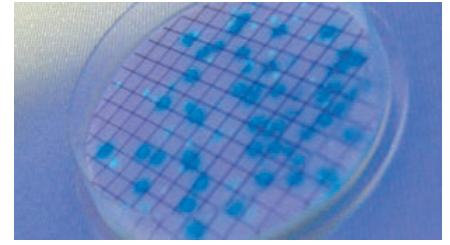


(C) Easy removal of the membrane.

## Filtration considerations

Microorganisms in a water sample are collected using a microfiltration membrane filter. The membrane can then be transferred onto a microbiological culture medium for further identification and/or quantification of microorganisms.

Membrane filtration methods are commonly used for the detection of microorganisms such as *E. coli*, *Clostridia*, fecal coliforms, *Legionella*, *Staphylococci*, and *Pseudomonas aeruginosa*. These methods involve the use of membrane filters and filtration manifolds.



Gridded membrane on agar plate containing bacterial colonies.

What are you testing for?	Product	Characteristics and benefits
Bacterial count and/or detection	<b>Membranes</b>	<ul style="list-style-type: none"> <li>Both sterile and nonsterile options</li> <li>Range of pore sizes available</li> <li>ME and MicroPlus membranes are sterile and individually packed. They contain a folded strip of filters for use with our membrane dispenser.</li> </ul>
	<b>Accessories: Membrane-Butler membrane dispenser</b> (manual version)	<p>With each turn a membrane filter is ejected and can be removed easily with a pair of tweezers.</p> <ul style="list-style-type: none"> <li>Cross-contamination risks are minimized</li> <li>Membrane is dispensed rapidly</li> </ul>
	<b>Other microbiological control accessories: funnel dispenser, funnels, tweezers, autoclaving bags</b>	<ul style="list-style-type: none"> <li>Waste reduction, because PP funnels can be autoclaved up to 20 times</li> <li>Time saving; no need to flame in between filtrations</li> <li>Easy handling</li> <li>Reduce cross-contamination</li> <li>Reproducible results</li> <li>Low background contamination</li> </ul>



# Ordering information

## Membrane filters

Diameter					25 mm	47 mm	50 mm	
Membrane material/type	Pore size	Color	Sterile	Membrane-Butler compatible	Product code	Product code	Product code	Quantity
Cellulose mixed ester/ME type	0.2 µm	white	yes	no	–	10406970	10406972	100/pack
	0.2 µm	white	yes	yes	–	10408712	10408714	400/pack
	0.45 µm	white	yes	no	–	10406870	10406872	100/pack
	0.45 µm	white	yes	yes	–	10407312	10407314	400/pack
	0.45 µm	black/white grid	yes	yes	–	10409770	–	100/pack
	0.45 µm	black/white grid	yes	yes	–	10407332	–	400/pack
Cellulose nitrate/MicroPlus	0.45 µm	white	yes	no	–	10407713	10407714	100/pack
	0.45 µm	white	yes	yes	–	10407112	10407114	400/pack
	0.45 µm	black	yes	no	–	–	10407734	100/pack
	0.45 µm	black	yes	yes	–	10407132	–	400/pack
Polycarbonate/Nuclepore	0.2 µm	white	no	no	–	111106	111206	100/pack
	0.4 µm	white	no	no	–	111107	111207	100/pack
	0.8 µm	black	no	no	110659	–	–	100/pack
Nylon (Polyamide)/NL	0.4 µm	white	no	no	–	10414112	10414114	100/pack

## Accessories for microbiological control

Product	Description	Quantity/pack	Product Code
AS 200	2-place vacuum manifold	1	10 445 890
Funnel dispenser	Automatic dispenser for funnels	1	10 445 870
Funnels 100 mL	PP (autoclavable)	20	10 445 861
Funnels 350 mL	PP (autoclavable)	20	10 445 866
Autoclaving bags	Autoclaving bags for MBS I funnels	20	10 445 868
Membrane-Butler	Manual dispenser for membranes	1	10 477 100
Membrane eButler	Automatic dispenser for membranes	1	10 477 103



Membrane eButler

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