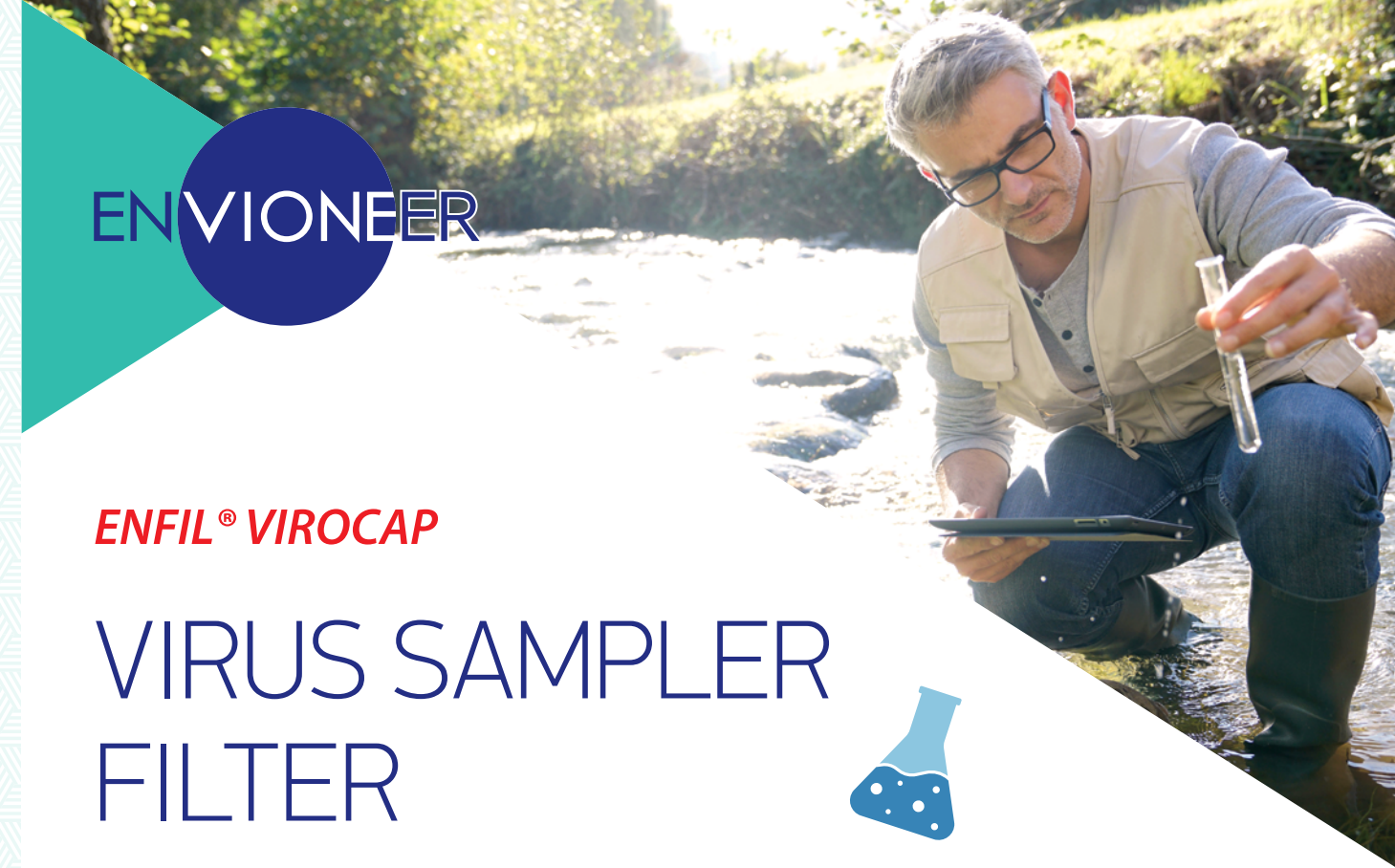




ENVIONEER

ENFIL® VIROCAP

VIRUS SAMPLER FILTER



ENFIL® VIROCAP provides highly efficient primary concentration method for capturing waterborne enteric viruses in large volumes of water to quantify amount of virus particles. The focus of the ENFIL® VIROCAP 's development was in response to the EPA's regulations for a low cost virus sampler.

Features and benefits

ENFIL® VIROCAP is based on Envioneer's innovative electropositive charged nonwoven filter media in a pleated cartridge. The electropositive charge on the surface and inside its pore allows superior ability of capturing and concentrating waterborne enteric viruses at lower cost than the currently approved filter. VIROCAP is equally useful in the laboratory and in the field for sampling large water sources such as lakes, rivers, pools and sanitation effluent.

ENFIL® VIROCAP was tested by a continuous stream containing 3ppm of particle of more than 0.5µm A2 fine test dust at 11.4LMP. At 30 minutes it had filtered 99.5% of viruses from water samples while maintaining <0.01NTU in the effluent at which point the test was terminated.

Adsorbed viruses can be recovered effectively from *ENFIL® VIROCAP* media using an alkaline buffered protein solution, such as a 1.5% beef extract in an aqueous glycine solution at pH 9.5.

It is known to be difficult to isolate waterborne enteric viruses from samples collected in the field, therefore the concentration of the filter media should have little or no effect on virus viability.

Applications

- Municipal water
- Recreational water
- Food & Beverage
- Pharmaceutical & Biomedical
- Laboratory



[Virus Sampler Filter cartridge]



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Construction of the VIROCAP

- **ENFIL® VIROCAP** cartridges are constructed with four layers of pleated electropositive charged filter media and polypropylene-based support media, polypropylene cages, end-caps and EPDM gaskets.
- This pleated cartridge configuration enables a large filter surface area in a small unit which in turn allows larger volumes of turbid waters to be sampled.
- **ENFIL® VIROCAP** is available in a double open-ended configurations, giving 0.1m² of active filtration area per 5 inch length and 0.2m² for 10 inch long to suit the retention and flow rate requirements.

Classification	Unit	VIROCAP-5	VIROCAP-10
Filtration area	m ²	0.100	0.200
Length	mm	5 inch (127mm)	9 ¾ inch (248mm)

Properties

Efficient capture & concentration of waterborne viruses

Allows sample testing at prevalent pH

Safety

Achieving all satisfactory results from Korean water purifier standards requirement tests

Effective in microbiological filtration

Providing consistent and verifiable virus filtration for a variety of water

High retention rate for viruses

Retention rate of virus 50±10 % (based on standard data for poliovirus adsorption)