

User Guide

Millex®-GS Vented Sterilizing Filter

- Single use only
- Sterile
- Non-pyrogenic

SLGSVR255F

For research use only.

Indications for Use/Purpose

The Millex®-GS Vented Sterilizing filter is intended for use as a syringe filter to sterilize low volume aqueous solutions in research applications.

Introduction

The Millex®-GS Vented Sterilizing filter is a sterilizing filter for aqueous solutions dispensed with a syringe. It will remove microorganisms, particles, precipitates, and undissolved powders larger than 0.22 micron (μm). The sterile Millex®-GS Vented Sterilizing filter is non-pyrogenic and non-toxic. This single-use product consists of a 0.22 μm membrane filter sealed in a plastic housing. A 0.03 μm hydrophobic filter in the dome prevents air locking by automatically venting air introduced upstream. Typical research laboratory applications include the sterile filtration and/or clarification of protein solutions, antibodies, tissue culture media, additives, buffers, and water.

Chemical Compatibility

The Millex®-GS Vented Sterilizing filter is compatible with most aqueous solutions. It may be used to filter the agents listed below. This guide has been developed from technical publications, materials suppliers, and laboratory tests, and is believed to be reliable. However, because of variability in temperature, concentrations, duration of exposure, and other factors outside of our control which may affect the use of the unit, no warranty is given or is to be implied with respect to such information.

Agents that are not listed below should be tested with the Millex®-GS Vented Sterilizing filter prior to use.

Acetic acid (5%)	Hydrogen (gas)
Aliphatic ethers	Hypo (photo)
Ammonium hydroxide (6 N)	Isobutyl alcohol
Benzyl alcohol (1%)	Isopropyl alcohol
Boric acid (aqueous solution)	Kerosene
Brine (sea water)	Mineral spirits
Butyl alcohol	Nitrogen (gas)
Freon® solvent, Trichlorotrifluoroethane (TF) or Precision Cleaning Agent (PCA)	Pentane
Glycerine (glycerol)	Petroleum based oils
Helium (gas)	Phenol (0.5%)
Hexane	Silicone oils
	Water (deionized)

Directions for Use

WARNINGS

- To ensure sterility, do not use this product if the package is damaged.
- Do not use with syringes smaller than 10 mL because pressures in excess of the maximum pressure rating may be reached, potentially causing damage to the filter and/or personal injury.
- Do not use this product as an in-line filter; it was not designed for long-term continuous use.

CAUTIONS

- Do not re-sterilize or reuse this filter, as we cannot assure the sterility, integrity, and performance beyond a single use.
- Do not use the Millex®-GS Vented Sterilizing filter at temperatures above 45 °C (113 °F).
- Do not use the Millex®-GS Vented Sterilizing filter for emulsions or suspensions.
- Do not use the Millex®-GS Vented Sterilizing filter for 5 mg or less of protein-containing solutions or reactive materials unless binding studies have been performed.
- Do not use the same Millex® filter to filter solutions in both directions.

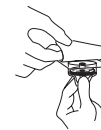
Procedure to Attach to a Syringe

Use aseptic technique.

1. Fill syringe with solution to be filtered.



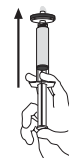
2. Aseptically remove cover from package.



3. Attach syringe to filter and remove assembly from package. Attach needle to Luer-slip outlet if necessary.



4. Hold syringe with filter (and needle if attached) pointing up and top off by pushing a few drops through. Do not contaminate underside of filter with fingers.



5. Insert needle (if attached) and push plunger to deliver filtered solution.



Specifications

Materials

Filter membrane	Hydrophilic mixed cellulose ester, type GS, pore size 0.22 µm
Vent membrane	Hydrophobic PTFE (polytetrafluoroethylene), 0.03 µm
Housing	PVC (polyvinyl chloride)

Dimensions

Inlet to outlet	27 mm (1.06 in.)
Diameter	29 mm (1.14 in.)
Filtration area	4 cm ² (0.62 in ²)

Temperature limit	45 °C (113 °F)
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Pressure limit at 21 °C	5.2 bar (75 psi) inlet and differential
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Filtration volume	1–100 mL
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Hold-up volume	≤ 0.1 mL after air purge
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Sterilization method	Ethylene oxide gas
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Connections	Female Luer-Lok™ inlet Male Luer-slip outlet
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Flow rate at 0.7 bar (10 psi), 21 °C	≥ 30 mL/min
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Symbol Definitions

Symbol	Definition	Symbol	Definition
	Catalogue number		Date of manufacture
	Do not reuse		Manufacturer
	Use-by date		Do not use if package is damaged
	Batch code		Sterilized using ethylene oxide

Notice

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