Savillex Technical Note

Purillex® PETG Square Media Bottles Storage and Handling Guidelines

Storage Conditions

- **Temperature Range:** Store at ambient room temperature (15°C–25°C). For filled bottles, ensure storage within −85°C to room temperature (21°C), per validated freeze/thaw capacity.
- **Shelf Life:** Sterile bottles have a 5-year shelf life from sterilization date; non-sterile may vary (see lot certificate).
- **Environment:** Keep sealed in original packaging (double-bagged tray, shrink-wrapped, then corrugated box) in a clean, low-humidity area.

Handling Practices

- **Opening Sealed Packaging:** Open in a laminar flow or cleanroom environment when aseptic conditions are required.
- **Cap Torque:** Tighten closures to approximately 30 in-lb (3.4 N·m) to ensure leak-proof performance.
- **Pouring Support:** Utilize inwardly sloped shoulders & molded graduations to minimize spills during decanting.
- **Avoid Rough Handling:** Although shatter-resistant, these bottles can crack under excessive force - handle gently to preserve integrity.

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Freeze-Thaw and Cryogenic Use

- **Freeze/Thaw Tolerance:** Validated for multiple cycles within a range of −85°C to room temperature. Performance confirmed with no significant CO_2 ingress or pH shift ±0.1 in PBS after 60 hours in dry ice.
- **Dry Ice Shipping/Storage:** Can be used without shrink caps; closures are torqued to spec to reliably prevent CO_2 ingress.
- **Thaw Procedure:** Allow sealed bottles to thaw at room temperature before opening.

Tech Note

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Chemical and Biological Capability

- **Resin Properties:** Made from non-pyrogenic, non-cytotoxic USP Class VI PETG resin, offering low extractables and strong chemical compatibility in life science applications.
- **Gas Barrier:** Excellent barrier against CO_2 & O_2, helping to maintain media stability and pH control.

Cleanroom and Sterility

- **Manufacture & Inspection:** Produced in an ISO Class 7 cleanroom with 100% visual/particle inspection.
- **Sterility Assurance:** Sterile bottles meet 10^{-6} SAL via gamma irradiation; non-sterile provide consistent quality with CoC. Available with or without a tamper-evident shrink band.

Guidelines

Aspect	Description
Material & Composition	Made of USP Class VI-compliant PETG resin; non-pyrogenic, non-cytotoxic, low leachables and extractables. Optically clear with molded graduations.
Closure & Seal	High-density polyethylene (HDPE) lugged cap with precise thread design, eliminating the need for secondary seals. Leakproof when properly torqued.
Chemical Compatibility	Excellent resistance to a broad range of lab reagents, media, buffers, and sera. Maintains barrier against CO_2 and O_2 permeation.
Sterility & Shelf Life	Sterile variants meet SAL 10^{-6}, with a 5-year validated shelf life.
Physical Durability	Heavy-duty, injection-molded design is shatter-resistant. Thread quality minimizes particulates.
Labeling & Handling	Square, clear shape supports easy labeling, stacking, and pouring control.
Packaging & Integrity	Non-sterile bottles are double-bagged in trays; sterile bottles include heat-shrink bands for tamper evidence.
Storage Conditions	Safe for freeze/thaw cycles within a range of -85°C to 21°C (-121°F to 70°F). Avoid direct UV/light to preserve material stability and clarity.
Handling Best Practices	Use pipettes or funnels to avoid spills/contamination. Do not overtighten caps to preserve thread integrity. Inspect for cracks or particulates before use.

Click here to learn more about Purillex PETG Bottles and shop online.

Savillex
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