

High Purity Semiconductor Grade Pfa Sampling Bottles For Ultrapure Reagent Storage And Trace Analysis Applications

Item Number: PL-CP194



Introduction

High-purity PFA sampling bottles designed for semiconductor grade reagent storage and trace analysis. These inert containers prevent metal ion leaching and contamination, ensuring baseline stability and data reproducibility for critical industrial laboratory processes and ultrapure fluid handling. Contact us today.

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Application	Description	Key Benefit
Semiconductor Fabrication	Storage and transport of ultra-high purity (UHP) chemicals and photoresists used in wafer processing.	Prevents trace metal contamination that can cause wafer defects.
Trace Element Analysis	Containment of samples and standards for ICP-MS, ICP-OES, and AAS in environmental or geological research.	Ensures ultra-low background levels and high data reproducibility.
Catalyst Ink Storage	Holding slurries containing isopropanol, Nafion, and various catalysts for electrochemical testing.	Smooth walls prevent residue loss and maintain slurry consistency.
LC-MS/MS Sample Prep	Storage of high-purity solvents like ultrapure water and ammonium acetate for liquid chromatography.	Prevents solvent penetration and leaching of plasticizers or metal ions.
Silicon Concentration Detection	Sample transfer and storage for trace silicon analysis in plant tissues or industrial materials.	Prevents silicon leaching from walls and adsorption of sample components.
Acid Digestion Workflows	Storage of highly corrosive digested samples (e.g., HF, HNO ₃) awaiting dilution and measurement.	Superior resistance to mineral acids at elevated temperatures.
Standard Reference Materials	Long-term archiving of certified reference materials and primary calibration standards.	Maintains concentration stability by preventing evaporation and adsorption.
Battery Research	Handling of electrolyte components and specialized additives in controlled laboratory environments.	Chemical inertness ensures no interference with electrochemical results.

Feature	Specification for PL-CP194 Series
Material	High-Purity Perfluoroalkoxy (PFA)
Product Identification	PL-CP194
Temperature Resistance Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Universal (except molten alkali metals, fluorine gas)
Trace Metal Background	< 10 ppt (parts per trillion) for major elements
Surface Tension/Wettability	Hydrophobic, extremely low surface energy
Standard Capacities (Examples)	500ml, 1000ml (Fully customizable)
Cap Design	Liner-less, high-torque screw cap for airtight seal
Fabrication Method	Precision Molding and/or Custom CNC Machining

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Feature	Specification for PL-CP194 Series	
Cleaning Protocol	Semiconductor-grade ultra-pure water/acid cleaned options available	
Dimensions	Custom-manufactured to client specifications	