

# Pfa Distillation Flask For Water Quality Alkylmercury Determination And Laboratory Trace Analysis Heating Applications

Item Number: PL-CP423



## Introduction

Precision-engineered PFA distillation flask designed for trace alkylmercury analysis. Featuring a 60ml capacity and ultra-high purity material for contamination-free heating. This fully customizable unit ensures optimal performance in demanding laboratory water quality testing and specialized environmental research applications and workflows.

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Application	Description	Key Benefit
Alkylmercury Speciation	Distillation of water samples to separate methylmercury and ethylmercury for subsequent detection.	Minimal analyte adsorption compared to glass vessels.
Trace Metal Digestion	Sample preparation involving strong acids (HNO <sub>3</sub> , HCl, HF) for environmental water quality testing.	Total resistance to hydrofluoric acid and high-purity recovery.
Oceanographic Research	Analysis of seawater samples for ultra-trace levels of heavy metals in coastal and deep-sea environments.	Resistant to salt-spray corrosion and low trace-element leaching.
Petrochemical Analysis	Distillation of volatile contaminants and catalysts from organic matrices and fuel samples.	High thermal tolerance and compatibility with various hydrocarbon solvents.
Pharmaceutical Quality Control	Testing for residual catalysts or heavy metal impurities in active pharmaceutical ingredients (APIs).	Compliance with high-purity standards and non-contaminating surfaces.
Environmental Monitoring	Routine testing of wastewater and industrial effluent to meet regulatory discharge standards.	Durable construction for long-term use in high-volume testing labs.
Acid Purification	Small-scale distillation of acids to produce sub-boiling trace-metal grade reagents.	High-purity PFA ensures no re-introduction of metallic impurities.

Feature	Details for PL-CP423
Product Identifier	PL-CP423
Nominal Capacity	60ml
Primary Material	High-Purity Perfluoroalkoxy (PFA)
Temperature Range	-200°C to +260°C
Chemical Compatibility	Universal (including HF, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , and organic solvents)
Surface Property	Hydrophobic, Non-stick, Smooth internal finish
Fabrication Method	Precision CNC Machining / Molding
Customization Options	<b>Customizable:</b> Neck length, joint types, wall thickness, and integrated sensor ports
Design Type	Distillation / Reaction Flask

Application	Description	Key Benefit
Feature	Details for PL-CP423	
<b>Cleanability</b>	Autoclavable; compatible with acid-washing and sub-boiling cleaning	