

# High Purity Pfa Gas Washing Bottle Corrosion Resistant Tail Gas Absorption And Buffer Vessel

Item Number: PL-CP425



## Introduction

Premium PFA gas washing bottles and tail gas absorption vessels offer ultimate chemical resistance and ultra-trace purity. These customizable buffer bottles ensure zero contamination for demanding laboratory applications, semiconductor processing, and high-precision chemical analysis and research.

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Application	Description	Key Benefit
Semiconductor Etching	Used for scrubbing corrosive gases and managing high-purity etching reagents in cleanroom environments.	Prevents ionic contamination of silicon wafers.
Trace Metal Analysis	Preparation and storage of ultra-pure acids and buffers (e.g., pH 4.5 acetate) for heavy metal detection.	Eliminates false positives by ensuring zero leaching.
Environmental Monitoring	Capturing volatile organic compounds (VOCs) and acidic pollutants from air samples into absorption liquids.	High capture efficiency with no material interference.
Pharmaceutical Synthesis	Serving as a reaction buffer and tail gas absorber for aggressive synthesis byproducts.	Maintains sterile and chemically pure conditions.
Petrochemical Testing	Analysis of sulfur content and other impurities in gas streams via liquid absorption.	Long-term resistance to hydrocarbons and H2S.
Electrochemical Research	Functioning as a reservoir or gas bubbler for electrochemical cells and battery testing setups.	Exceptional stability under electrical and chemical stress.
ICP-MS Sample Prep	Facilitating the Collaborative Etching and Precipitation (CEP) process for multi-metal ion components.	Ensures accurate stoichiometric ratios of components.

Feature	Specification	Details
Product Item Number	PL-CP425	Customizable Base Identifier
Primary Material	PFA (Perfluoroalkoxy)	High-purity, semi-transparent fluoropolymer
Complementary Materials	PTFE / FEP	Available for specific internal components
Standard Volumes	250ml, 500ml, 1000ml	Custom sizes available upon request
Operating Temperature	-200°C to +260°C	Sustained performance at temperature extremes
Chemical Resistance	Universal	Inert to HF, Aqua Regia, and strong alkalis
Metal Ion Leaching	< 0.01 ppb	Suitable for PPT-level trace analysis
Port Configurations	GL45, GL32, Custom NPT	Options for multiple inlets and outlets
Tubing Compatibility	1/8", 1/4", 3/8", 6mm, 8mm	Integrated compression fittings or flared ports
Fabrication Method	Precision CNC Machining	Ensures airtight seals and dimensional accuracy
Surface Finish	High-Purity Smooth Bore	Minimizes turbulence and facilitates cleaning