Restek Air

Reduce Costs with Air Sampling Bottles

- Protective, foam-filled box prevents bottle breakage during sampling, transportation, and analysis.
- Easy-access, leak-tight RAVEqc valves prevent sample loss and are quick and simple to use.
- Inert, deactivated glass ensures reactive compounds are stable and can be accurately reported.

RESTEK Pure Chromatography www.restek.com

Air Sampling Bottles Offer a More Cost-Effective Solution for Soil Gas Analysis

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Stainless-steel air sampling canisters work well for ambient air testing, but for soil gas testing, air sampling bottles can save labs significant time and money. Because soil vapor is often highly contaminated, canisters are difficult and time-consuming to clean and can even become irreversibly contaminated. Glass air sampling bottles are a much less expensive alternative, but they can shatter, causing injury as well as the time and expense of resampling. Restek offers a better solution: our deactivated air sampling bottles are housed in specially designed, protective packaging that allows direct access to the valve while the bottle stays protected during sampling, transportation, and analysis.

Protected and disposable, Restek air sampling bottles are more cost-effective for soil vapor testing than air canisters.

Easy-access valve chamber lets you quickly connect to sampling and analysis devices while the bottle stays protected in the box.

Withstands pressures up to 10 psig.

Inert, deactivated glass ensures reactive compounds are stable and can be accurately reported.

Rugged cap seal and leak-tight RAVEqc quick-connect valve prevent sample loss.

Protective, foam-filled box prevents bottle breakage during sampling, transportation, and analysis.

Amber glass and outer packaging prevent photodegradation of target compounds.

Get Full Protection and an Easy Connection

At a fraction of the price of air canisters, Restek's air sampling bottles are designed for ease of use and peace of mind. While the bottles may be used for indoor or ambient air sampling methods, such as Method TO-15A, they are ideal for soil gas and other highly contaminated samples. During use in the field and lab, the valve is easily accessed from a separate chamber while the bottle stays secure and protected within the box. In addition, the RAVEqc quick-connect valve makes it fast and simple for novices and experts alike to make consistent, leak-tight connections. After soil gas sampling and analysis, the bottles can either be cleaned and reused for additional saving or disposed of properly.

A separate chamber provides easy valve access while the bottle stays safe in the box, preventing breakage, sample loss, and injury.

Keep Active Compounds Stable for Accurate Reporting

While cost, bottle protection, and ease of use are critical, sample storage stability is also essential for accurate results. Stability testing proves that the deactivated glass air sampling bottle is highly inert, which prevents the breakdown of active analytes and ensures more accurate reporting. As shown in Table I, all compounds met the ±30% stability criteria in Method TO-15A after 30 days of storage. Deactivated valves are also available for a fully protected sample path.

Table I: Analyte concentration is stable over 30 days in air sampling bottles due to highly effective glass deactivation.

Compound (200 pptv)	Average Change after 30 Days (n = 4)	Test Result
Propylene	25%	Pass
Dichlorodifluoromethane (CFC-12)	4%	Pass
1,2-Dichlorotetrafluoroethane (CFC-114)	4%	Pass
Chloromethane	15%	Pass
Vinyl chloride	20%	Pass
Bromomethane	11%	Pass
Chloroethane	30%	Pass
Trichlorofluoromethane (CFC-11)	5%	Pass
1,1-Dichloroethene	9%	Pass
Ethanol	21%	Pass
Acetonitrile	10%	Pass
Carbon disulfide	21%	Pass
1,1,2-Trichlorotrifluoroethane (CFC-113)	14%	Pass
Acrolein	12%	Pass
Allyl chloride	10%	Pass
Isopropyl alcohol	18%	Pass
Methylene chloride	22%	Pass
Acetone	24%	Pass
trans-1,2-Dichloroethene	23%	Pass
Hexane	15%	Pass
Methyl *tert*-butyl ether (MTBE)	22%	Pass
1,1-Dichloroethane	19%	Pass
Vinyl acetate	16%	Pass
cis-1,2-Dichloroethene	10%	Pass
Cyclohexane	16%	Pass
Chloroform	10%	Pass
Carbon tetrachloride	8%	Pass
Ethyl acetate	23%	Pass
Tetrahydrofuran	13%	Pass
1,1,1-Trichloroethane	11%	Pass
2-Butanone (MEK)	25%	Pass
Heptane	7%	Pass
Benzene	5%	Pass

Compound (200 pptv)	Average Change after 30 Days (n = 4)	Test Result
1,2-Dichloroethane	7%	Pass
Trichloroethylene	8%	Pass
1,2-Dichloropropane	10%	Pass
Bromodichloromethane	10%	Pass
Methyl methacrylate	11%	Pass
1,4-Dioxane	20%	Pass
cis-1,3-Dichloropropene	7%	Pass
Toluene	6%	Pass
4-Methyl-2-2pentanone (MIBK)	8%	Pass
Tetrachloroethene	8%	Pass
trans-1,3-Dichloropropene	5%	Pass
1,1,2-Trichloroethane	6%	Pass
Dibromochloromethane	4%	Pass
1,2-Dibromoethane	7%	Pass
2-Hexanone (MBK)	15%	Pass
Chlorobenzene	8%	Pass
Ethylbenzene	8%	Pass
m- & *p*-Xylene	9%	Pass
o-Xylene	15%	Pass
Styrene	18%	Pass
Bromoform	3%	Pass
Cumene	14%	Pass
1,1,2,2-Tetrachloroethane	5%	Pass
4-Ethyltoluene	11%	Pass
1,3,5-Trimethylbenzene	9%	Pass
1,2,4-Trimethylbenzene	18%	Pass
1,3-Dichlorobenzene	12%	Pass
1,4-Dichlorobenzene	13%	Pass
Benzyl chloride	21%	Pass
1,2-Dichlorobenzene	13%	Pass
Hexachlorobutadiene	12%	Pass
1,2,4-Trichlorobenzene	23%	Pass
Naphthalene	30%	Pass
Overall Average	**13%**	

Experimental design: four air sampling bottles were spiked at 200 pptv, filled with 50% RH lab air to 5 psig, and then tested on day 1 and again on day 30.

Air Sampling Bottles

27263

- Ideal for soil gas testing: air sampling bottles are more cost-effective for highly contaminated samples than air canisters.
- Protective, foam-filled box prevents bottle breakage during sampling, transportation, and analysis. (Also available without the foam-filled box.)
- Easy-access valve chamber lets you connect to sampling and analysis devices while the bottle stays protected in the box.
- Inert, deactivated glass ensures reactive compounds are stable and can be accurately reported.
- Rugged cap seal and leak-tight RAVEqc quick-connect valve prevent sample loss.
- Also suitable for indoor or ambient air sampling methods, such as Method TO-15A.
- Maximum pressure: 10 psig.

Description	Includes	Material	qty.	cat.#
Air sampling bottle kit with box	1 L amber bottle (IP deactivated) with cap; male RAVEqc quick-connect valve (stainless steel); and protective, foam-filled box	Stainless-Steel Valve	kit	27263
	1 L amber bottle (IP deactivated) with cap; male RAVEqc quick-connect valve (Siltek-treated); and protective, foam-filled box	Siltek-Treated Valve	kit	27264
Replacement air sampling bottles	1 L amber bottles (IP deactivated) with caps		12-pk.	27267
Air sampling bottle kit without box	1 L amber bottle (IP deactivated) with cap; male RAVEqc quick-connect valve (stainless steel)	Stainless-Steel Valve	kit	27261
	1 L amber bottle (IP deactivated) with cap; male RAVEqc quick-connect valve (Siltek-treated)	Siltek-Treated Valve	kit	27262

RAVEqc Valves for Air Sampling Bottles

27265

- Simplify your workflow—tool-free design makes it fast and easy for anyone to make consistent, quality connections.
- Specially designed to be used with Restek's air sampling bottles.
- Stand-alone or supporting roles—use alone or pair with a bellows/diaphragm valve for the ultimate in sample security and convenience.
- Check status at a glance—if the parts are connected, the valve is open; if they're apart, it's closed.
- Leak-free performance—each and every valve is helium leak tested to $1x10^{-6}$ mL/sec.
- Compatible with Entech Micro-QT valves.

Description	Material	qty.	cat.#
Male RAVEqc quick-connect valve for air sampling bottles	Stainless Steel	ea.	27265
	Siltek Treated	ea.	27266