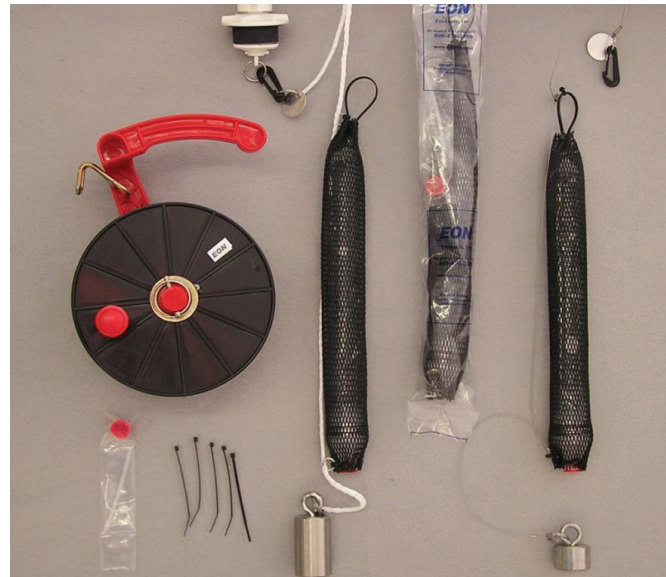


# Equilibrators – Passive Diffusion Samplers

## Passive Diffusion Sampling for Volatile Organic Compounds



PDBs are semi-permeable polyethylene membranes filled with deionised water. They are used in place of purging and low-flow sampling methods in groundwater monitoring to obtain representative, discrete interval samples of VOCs under natural groundwater flow conditions via diffusion.

Sample VOCs that are:

- Non-Polar Molecules
- Not Highly Soluble
- Chlorinated Solvents, Fuel Products, etc.

Installation Period: approximately 14 days to allow well restabilisation and diffusion through the membrane.

Compounds tested under laboratory conditions for use with passive diffusion bag samplers as per USGS/USEPA guidance documentation include:

Tested compounds showing good correlation (average differences in concentration of 11 percent or less between diffusion-sampler water and test-vessel water) in laboratory tests			
Benzene	2 Chlorovinyl ether	<i>cis</i> -1,2-Dichloroethene	1,1,1-Trichloroethane
Bromodichloromethane	Dibromochloromethane	<i>trans</i> -1,2-Dichloroethene	1,1,2-Trichloroethane
Bromoform	Dibromomethane	1,2-Dichloropropane	Trichloroethene
Chlorobenzene	1,2-Dichlorobenzene	<i>cis</i> -Dichloropropene	Trichlorofluoromethane
Carbon tetrachloride	1,3-Dichlorobenzene	1,2-Dibromoethane	1,2,3-Trichloropropane
Chloroethane	1,4-Dichlorobenzene	<i>trans</i> -1,3-Dichloropropene	1,1,2,2-Tetrachloroethane
Chloroform	Dichlorodifluoromethane	Ethyl benzene	Tetrachloroethene
Chloromethane	1,2-Dichloroethane	Naphthalene	Vinyl chloride
	1,1-Dichloroethene	Toluene	Total xylenes
Tested compounds showing poor correlation (average differences in concentration greater than 20 percent between diffusion-sampler water and test-vessel water) in laboratory tests			
Acetone*	Methyl- <i>tert</i> -butyl ether	Styrene	

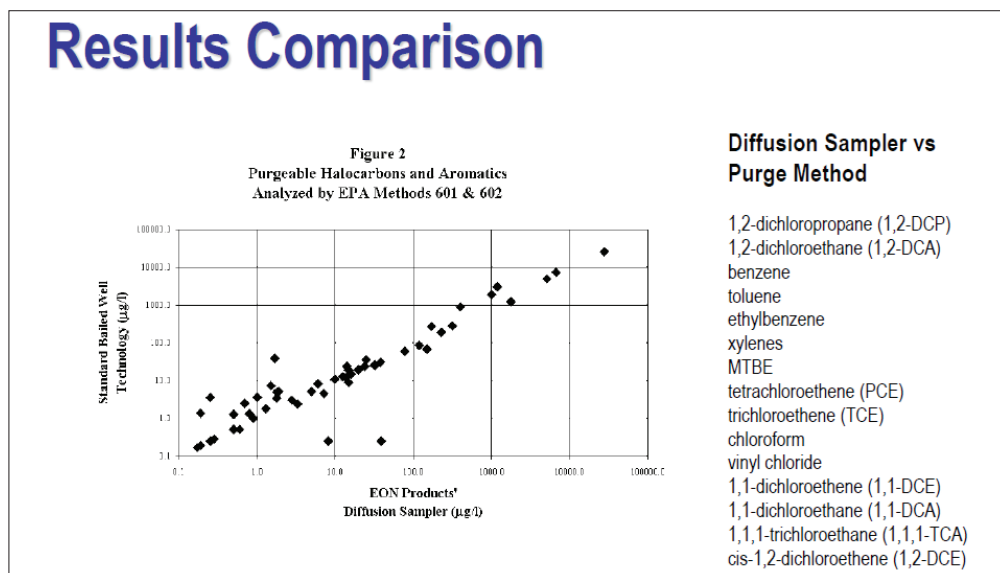
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Further compounds have been tested in comprehensive field studies.

PDBs also correlate well with standard purging methods as outlined in the comparison study below:



Additional comparison studies are available at request.

## Ordering information

Passive Diffusion Sampler Options	Description
EONGSD200	350ml Equilibrator Diffusion Sampler 1.75x18in
EONGSD210	500ml Equilibrator Diffusion Sampler 1.75x24in
EONGSD220	750ml Equilibrator Diffusion Sampler 1.75x36in
<b>Weight</b>	
EEQCUSTOMWEIGHT	Weight for passive samplers- Cable tie required
<b>Connectors</b>	
EONFSR135	Snap Connectors (reusable)
<b>Polypropylene Rope</b>	
EONFSR265	Polypropylene rope 305m

Find out more at [thermofisher.com.au](http://thermofisher.com.au)

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