BEACON ENVIRONMENTAL

Global Leader in Soil Gas and Air Analyses

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SEWER GAS SAMPLING WITH THE BEACON PASSIVE SAMPLER

EASY-TO-USE PASSIVE SORBENT SAMPLERS TO TARGET A BROAD RANGE OF COMPOUNDS



BENEFITS

- Time-weighted average concentrations
- Sample for hours, days, or weeks
- Target petroleum and chlorinated compounds, including Vinyl Chloride
- More reliable than other passive methods
- Sensitive – Detection limits in the ppt range
- Easy-to-use BeSure Sample Collection Kit™
- Accurate and defensible data

APPLICATIONS



Manhole Access Sampling



Sewer Cleanout Sampling

Accurate and Easy-to-Use

Sewer gas VOC concentrations fluctuate significantly over time and opening a manhole temporarily dilutes VOC concentrations in sewer gas. As a result, short duration ‘grab’ sampling may not accurately measure actual vapor intrusion risks.

Beacon Passive Samplers overcome this challenge by reporting time-weighted average concentration data (ug/m^3) collected over days or weeks.

Designed with hydrophobic adsorbents specifically engineered for high-humidity environments, Beacon Passive Samplers set the industry standard for sewer gas sampling. Their reliability, ease of transport, and simple sample collection procedures make them the preferred sampling method.

Beacon Samplers have a 30-day hold time and are analyzed at Beacon’s accredited laboratory.

Beacon Environmental is ISO/IEC 17025:2017, DoD ELAP QSM 6.0 and NELAP accredited for the analysis of sorbent samples following US EPA Methods TO-17, TO-15, 8260D and 325B.



BEACON PASSIVE SAMPLER REPORTING LIMITS

Limits of Quantitation (LOQs) based on Exposure Periods and Third-Party Validated Uptake Rates. When required, lower detection limits can be reported.

COMPOUND	CAS	Uptake Rate (ml/min)	1 Day LOQ (ug/m³)	3 Days LOQ (ug/m³)	7 Days LOQ (ug/m³)	14 Days LOQ (ug/m³)
Vinyl Chloride	75-01-4	0.81	8.57	2.86	1.22	0.61
1,1-Dichloroethene	75-35-4	0.33	21.04	7.01	3.01	1.50
Methylene Chloride	75-09-2	0.35	19.84	6.61	2.83	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	0.89	7.80	2.60	1.11	0.56
trans-1,2-Dichloroethene	156-60-5	0.44	15.78	5.26	2.25	1.13
Methyl-t-butyl ether	1634-04-4	0.50	34.72	11.57	4.96	2.48
1,1-Dichloroethane	75-34-3	0.85	8.17	2.72	1.17	0.58
cis-1,2-Dichloroethene	156-59-2	0.53	13.10	4.37	1.87	0.94
Chloroform	67-66-3	0.35	19.84	6.61	2.83	1.42
1,2-Dichloroethane	107-06-2	0.56	12.40	4.13	1.77	0.89
1,1,1-Trichloroethane	71-55-6	1.05	6.61	2.20	0.94	0.47
Cyclohexane	110-82-7	0.51	34.04	11.35	4.86	2.43
Carbon Tetrachloride	56-23-5	0.43	16.32	5.44	2.33	1.17
Benzene	71-43-2	0.53	32.76	10.92	4.68	2.34
Trichloroethene	79-01-6	0.33	21.04	7.01	3.01	1.50
1,4-Dioxane	123-91-1	0.41	16.94	5.65	2.42	1.21
1,1,2-Trichloroethane	79-00-5	0.33	21.04	7.01	3.01	1.50
Toluene	108-88-3	0.40	43.40	14.47	6.20	3.10
1,2-Dibromoethane (EDB)	106-93-4	0.39	18.03	6.01	2.58	1.29
Tetrachloroethene	127-18-4	0.41	16.94	5.65	2.42	1.21
1,1,1,2-Tetrachloroethane	630-20-6	0.41	17.04	5.68	2.43	1.22
Chlorobenzene	108-90-7	0.85	8.17	2.72	1.17	0.58
Ethylbenzene	100-41-4	0.85	20.42	6.81	2.92	1.46
p & m-Xylene	108-38-3	0.88	19.73	6.58	2.82	1.41
o-Xylene	95-47-6	0.88	19.73	6.58	2.82	1.41
1,2,3-Trichloropropane	96-18-4	0.75	9.26	3.09	1.32	0.66
Isopropylbenzene	98-82-8	0.83	20.92	6.97	2.99	1.49
1,3,5-Trimethylbenzene	108-67-8	0.83	20.92	6.97	2.99	1.49
1,2,4-Trimethylbenzene	95-63-6	0.83	20.92	6.97	2.99	1.49
1,3-Dichlorobenzene	541-73-1	0.75	9.26	3.09	1.32	0.66
1,4-Dichlorobenzene	106-46-7	0.75	9.26	3.09	1.32	0.66
1,2-Dichlorobenzene	95-50-1	0.75	9.26	3.09	1.32	0.66
1,2,4-Trichlorobenzene	120-82-1	0.39	17.72	5.91	2.53	1.27
Naphthalene	91-20-3	0.80	8.68	2.89	1.24	0.62
1,2,3-Trichlorobenzene	87-61-6	0.39	17.72	5.91	2.53	1.27
1-Methylnaphthalene	90-12-0	0.76	9.14	3.05	1.31	0.65
2-Methylnaphthalene	91-57-6	0.76	9.14	3.05	1.31	0.65