

ULTRA

Economical, Convenient Alternative to Canisters

User-filled option
extends shelf-life!

ULTRA® — Provides results comparable to canisters for EPA Method TO-15

- Excellent sampling correlation with canisters (*see data on page 3*)
- No cleaning and certification costs
- Lower purchase price than canisters
- No expensive shipping
- Easy on/off sampling — no flow controller or training required

► Choice of 4 sorbents for indoor and ambient air sampling, including semi-volatile organic compounds

- Anasorb GCB1
- Tenax TA
- Chromosorb 106
- Charcoal (solvent extraction)

► Sub-ppb level detection, highly sensitive thermal desorption

- Rates 15 times higher than tube-style passive monitors for lower detection limits

► Passive alternative for EPA TO-17 — no pump required

► Slide cover for easy on/off sampling

► Small, lightweight, and easy to transport — no expensive shipping

► Validated sampling (uptake) rates

► Built-in blank/correction sorbent section available

► Sample integrity

- Sonically welded housing seals the sampler
- Manufactured in an ultra-clean environment
- Extensive cleaning and QC procedures

► Long-term sampling up to 30 days reduces temporal variability (*see www.skinc.com/pdf/1812.pdf*)

► Optional Rate Reducer lowers sampling rates for long-term studies and higher concentrations



The patented* ULTRA samples by diffusion and provides low parts per billion (ppb) to parts per trillion (ppt) detection of compounds, including semi-volatile organic compounds (SVOCs). ULTRA Passive Samplers are an economical alternative to stainless steel canisters for EPA TO-15 sampling and show excellent sampling correlation in side-by-side studies with canisters (*see data on page 3*). Operation is as easy as sliding the cover open to start sampling and closing it to stop sampling. ULTRA is available prefilled with sorbent. User-filled ULTRA Samplers[†] are available for extended shelf-life.

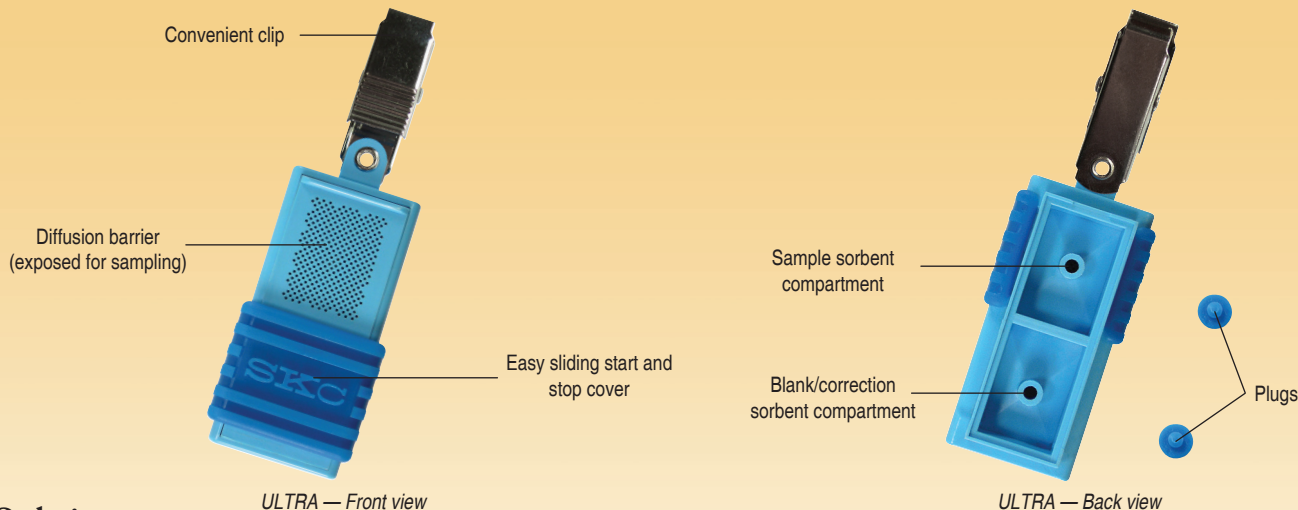
* U.S. Patent No. 6,607,581

† For user-filled ULTRA samplers, see www.skinc.com/instructions/40128.pdf.



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Ordering

| ULTRA Passive Samplers pre-filled with thermally purged sorbent, pk/5: | Cat. No. | Cat. No. |
|--|----------|---|
| Anasorb GCB1 ,** 370 mg in each compartment | 690-101 | 690-101-NB <i>(NB models do not contain sorbent in blank compartment)</i> |
| Chromosorb 106 ,†† 285 mg in each compartment | 690-103 | 690-103-NB |
| Tenax TA ,# 253 mg in each compartment | 690-104 | 690-104-NB |
| Charcoal ,** 500 mg in each compartment | 690-105 | 690-105-NB |

30-day shelf-life at < 39.2 F (4 C) ‡ Comparable to Carboxpack B ** Six-month shelf-life at < 39.2 F (4 C) † Go to www.osha.gov and search "ULTRA" for additional sampling rates for Chromosorb 106.

| ULTRA user-filled with thermally purged sorbent: <i>User fills sampler with sorbent supplied in vials for extended shelf-life</i> | Cat. No. |
|---|----------|
| ULTRA Sampler , empty sampler housing only, packaged in reusable pouch <i>Requires sorbent vials listed below; select sorbent appropriate for the application</i> | 690-200 |
| Sorbent Vials, pk/2 Contain purged sorbent (< 25 ng typical background level per vial) | |
| Anasorb GCB1 in vial,†† 370 mg in each vial | 690-201 |
| Chromosorb 106 in vial,†† 285 mg in each vial | 690-203 |
| Tenax TA in vial,† 253 mg in each vial | 690-204 |
| Charcoal in vial,‡ 500 mg in each vial, for solvent extraction | 690-205 |

Try user-filled samplers for extended shelf-life!

† 60-day shelf-life at < 39.2 F (4 C) Δ One-year shelf-life at < 39.2 F (4 C) ‡ Comparable to Carboxpack B † Go to www.osha.gov and search "ULTRA" for additional sampling rates for Chromosorb 106.

| Sampling Accessories | Cat. No. |
|---|----------|
| Rate Reducer , 12 holes, lowers sampling rate for extended sampling time and higher concentrations | 690-300 |
| Transfer Funnel , for filling sampler housing with sorbent from vials, for ULTRA only | 690-301 |
| Stand for Indoor Sampling | 690-302 |
| Shelter for Outdoor Sampling | 690-303 |

| Analysis Accessory | Cat. No. |
|---|----------|
| Thermal Desorption Tube , Perkin Elmer, 0.25 x 3.5 inches, includes screens and end caps | P226530 |



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Compare ULTRA Passive Sampler and Canisters

Side-by-side studies using ULTRA Passive Samplers (Anasorb GCB1) and stainless steel canisters demonstrate excellent sampling correlation.

| Compound | ULTRA (µg/m ³) | Canister (µg/m ³) |
|----------|----------------------------|-------------------------------|
| Benzene | 4.2 | 4.5 |
| | 2.1 | 2.0 |
| | 1.9 | 1.6 |
| | 6.67 | 6.8 |
| | 1.58 | 1.5 |

| Compound | ULTRA (µg/m ³) | Canister (µg/m ³) |
|-------------------|----------------------------|-------------------------------|
| Perchloroethylene | 1.1 | 1.6 |
| | 2.3 | 2.2 |
| | 32.9 | 30.0 |
| | 1.37 | 2.0 |
| | 2.85 | 2.6 |

| Compound | ULTRA (µg/m ³) | Canister (µg/m ³) |
|----------|----------------------------|-------------------------------|
| Toluene | 30.0 | 26.0 |
| | 20.3 | 19.0 |
| | 44.0 | 46.0 |
| | 10.8 | 8.8 |
| | 6.1 | 3.8 |

| Compound | ULTRA (µg/m ³) | Canister (µg/m ³) |
|------------|----------------------------|-------------------------------|
| m,p-Xylene | 21.2 | 19.2 |
| | 5.52 | 5.6 |
| | 34.1 | 36.7 |
| | 3.7 | 2.51 |
| | 5.7 | 5.1 |

| Compound | ULTRA (µg/m ³) | Canister (µg/m ³) |
|----------|----------------------------|-------------------------------|
| o-Xylene | 7.55 | 7.9 |
| | 1.16 | 0.93 |
| | 1.96 | 1.9 |
| | 8.3 | 6.2 |
| | 13.3 | 11.0 |

Sampling Rates and Minimum Reporting Levels for Long-term Sampling

Sampling Rates and MRLs^Δ for ULTRA with Charcoal (Solvent Desorption)

| Compound | Sampling Rate (ml/min) | | Sampling Period/ Upper Limit (days) | Maximum Recommended Concentration (ppb) | Indoor [§] MRL ^Δ (µg/m ³) | | Outdoor [§] MRL ^Δ (µg/m ³) | |
|-------------------------|------------------------|---------|---|--|--|--------|---|--------|
| | Indoor | Outdoor | | | 7 Day | 30 Day | 7 Day | 30 Day |
| Benzene | 10.70 | 16.0 | 30 | 113 | 3.98 | 0.43 | 1.24 | 0.29 |
| Ethyl benzene | 9.02 | 12.9 | 30 | 85 | 1.10 | 0.26 | 0.77 | 0.18 |
| Toluene | 8.90 | 14.5 | 30 | 500 | 1.12 | 0.26 | 0.69 | 0.16 |
| Methyl tert-butyl ether | 9.84 | 13.6 | 30 | 60 | 2.0 | 0.456 | 1.45 | 0.34 |
| o-Xylene | 8.11 | 11.9 | 30 | 80 | 1.22 | 0.29 | 0.83 | 0.195 |

^Δ MRL — minimum reporting level: These can vary with each laboratory; check with the laboratory.

[§] Indoor — low velocity conditions (< 5 cm/sec), outdoor — 5 to 200 cm/sec, low air velocities, typically found in indoor air, result in lower uptake rates in passive samplers

See the ULTRA Selection Guide at www.skinc.com

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to <http://www.skinc.com/warranty.asp>.

