

Designed for ACGIH TLVs with IFV Designation

- True inhalable fraction and vapor sampling simultaneously
 - Collects aerosol phase on a 25-mm filter using IOM-style inlet
 - Collects vapor in an 8 x 110-mm sorbent tube
 - Applications and media are shown in Selection Guide (see right).
- Recommended 1 L/min flow rate allows for effective collection of both contaminant phases
- Meets European Standard 13936 by collecting the total of vapor and aerosol exposures

SKC introduces the IFV Pro Sampler for collecting mixed-phase contaminants such as pesticides, polyaromatic hydrocarbons (PAHs), inorganic acids, and explosives. Sampling mixed-phase contaminants is challenging because these compounds exert sufficient vapor pressure that they may be present in both particulate and vapor phases with each contributing to the overall concentration. IFV Pro features an IOM-style inlet for true inhalable sampling and collects vapor phase on a variety of method-specific sorbents. *See compounds, filters, and sorbent tubes at right*.

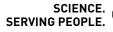
ACGIH IFV Designation

ACGIH[®] has assigned a TLV[®] with Inhalable Fraction and Vapor (IFV) designation to over 50 compounds (*see table at right*) that exert sufficient vapor pressure such that the contaminant may be present in both particle and vapor phases, with each phase contributing a significant portion of the dose.



IFV Pro Filter and Sorbent Tube Selection Guide

| | Recommended | Sorbent |
|-----------------------------------|-------------|-----------|
| Compound | Filter | Tube |
| Acrylamide | 225-702 | 226-10-04 |
| Alachlor | 225-702 | 226-30-06 |
| Aldrin | 225-702 | 226-30-06 |
| Azinphos-methyl | 225-702 | 226-30-06 |
| Butylated hydroxytoluene | 225-702 | 226-211 |
| Carbaryl | 225-702 | 226-30-06 |
| Carbofuran | 225-702 | 226-30-06 |
| Chlorpyrifos | 225-702 | 226-30-06 |
| Clopidol | 225-702 | 226-30-06 |
| Coumaphos | 225-702 | 226-30-06 |
| Cresol, all isomers | 225-702 | 226-211 |
| Demeton | 225-702 | 226-30-06 |
| Demeton S-methyl | 225-702 | 226-30-06 |
| Diazinon | 225-702 | 226-30-06 |
| Dibutyl phosphate | 225-702 | 226-30-06 |
| Dichlorvos | 225-702 | 226-30-06 |
| Dicrotophos | 225-702 | 226-30-06 |
| Dieldrin | 225-702 | 226-30-06 |
| Diesel fuel as total hydrocarbons | 225-702 | 226-09 |
| Diethanolamine | 225-702 | 226-214 |
| Dioxathion | 225-702 | 226-30-06 |
| Disulfoton | 225-702 | 226-30-06 |
| Endosulfan | 225-702 | 226-30-06 |
| 2-Ethylhexanoic acid | 225-702 | 226-10-04 |
| Fenamiphos | 225-702 | 226-30-06 |
| Fensulfothion | 225-702 | 226-30-06 |
| Fenthion | 225-702 | 226-30-06 |
| Fonofos | 225-702 | 226-30-06 |
| Glyoxal | 225-9036 | 226-119-7 |
| Malathion | 225-702 | 226-30-06 |
| Maleic anhydride | 225-9028 | 226-213 |
| Methomyl | 225-702 | 226-30-06 |
| Methyl demeton | 225-702 | 226-30-06 |
| Methyl parathion | 225-702 | 226-30-06 |
| Mevinphos | 225-702 | 226-30-06 |
| Monochloroacetic acid | 225-702 | 226-10-04 |
| Monocrotophos | 225-702 | 226-30-06 |
| Naled | 225-702 | 226-30-06 |
| o-Phthalodinitrile | 225-702 | 226-83 |
| Parathion | 225-702 | 226-30-06 |
| Pentachlorophenol | 225-702 | 226-211 |
| Phorate | 225-702 | 226-30-06 |
| Propoxur | 225-702 | 226-30-06 |
| Ronnel | 225-702 | 226-30-06 |
| Sulfotepp | 225-702 | 226-30-06 |
| Sulprofos | 225-702 | 226-30-06 |
| Temephos | 225-702 | 226-30-06 |
| Terbufos | 225-702 | 226-30-06 |
| 1,1,2,2-Tetrabromoethane | 225-702 | 226-10-04 |
| Tetraethylpyrophosphate (TEPP) | 225-702 | 226-106A |
| Thiram | 225-702 | 226-30-06 |
| Toluene-2,4-diisocyanate | 225-9035 | _ |
| Toluene-2,6-diisocyanate | 225-9035 | _ |
| Xylidene isomers | 225-702 | 226-10-04 |





SKC IFV Pro Sampler



Sampling Mixed-phase Contaminants Using IFV Pro

- 1. **Aerosol phase** Place cassette loaded with 25-mm filter in sampling head.
- 2. **Vapor phase** Insert opened sorbent tube into tube holder on sampling head.
- 3. **Simultaneous sampling** Attach tubing to sorbent tube, put protective tube cover in place, attach tubing to sample pump, and sample!

Designed for ACGIH TLVs with IFV Designation

| Performance Flow Rate: | Profile 1 L/min |
|--------------------------------------|---|
| 50% Cut-point: | 100 µm at 1 L/min inhalable fraction |
| Material: Sampling Head | Stainless steel front plate and filter cassette with 10.6-mm dia. inlet *; aluminum clip, housing, and outlet |
| Tube Holder | Black rubber |
| Protective Tube Cover | Plastic |
| Maximum Operating Temperature: | 392 F (200 C) suitable for autoclaving and solvent washing |
| Filters: | 25-mm glass fiber or quartz filter; or coated filter. Dependent upon compound of interest. <i>See Selection Guide on reverse side</i> . |
| Sorbent Tubes: | 8 x 110-mm size. Dependent upon compound of interest. <i>See Selection Guide on reverse side</i> . |
| Tubing: | ¼-inch ID |
| Weight: | 2.4 oz (68 gm) |
| Dimensions: | 8.5 x 1.2 in (21.6 x 3.17 cm) |

* Designed to meet the inhalable convention based on the scaling down technique described in the Final Report on research carried out under NIOSH-CDC Grant No. RO1-OH 03687-03, "Development of New Personal Aerosol Samplers," Vincent, J.H., et al., 2003.

Ordering Information

| Description | Cat. No. |
|---|----------|
| IFV Pro Sampler includes sampling head (aerosol sampler | |
| body, cassette, and front plate), protective tube cover, | |
| cassette cap, 10 extra tube holders (rubber sleeves), and | |
| cassette transport container, <i>requires 25-mm filter and</i> | |
| sorbent tube | 225-49 |
| IFV Pro Sampler Kit includes sampler as described above, | |
| calibration adapter, and case, <i>requires 25-mm filter and</i> | |
| sorbent tube | 225-49K |
| Filter Cassette, stainless steel, with cap and transport | |
| container, <i>for 25-mm filter</i> | 225-4903 |
| Tube Holders (Rubber Sleeves), pack of 25, change after | |
| each sample | P3022A |
| IFV Pro Cassette Transport Vial | 225-4901 |
| Accessory | |
| Calibration Adapter | 225-361 |

