



# Combustion By-Products

## Purpose of Test

This test is designed for analysis of fire residues for presence of analytes of interest (char, black carbon/soot and ash). The results of this test offer the client valuable information related to the extent of damage produced by a fire at a location (residential, industrial or wildfires). These results can be used for cleaning assessment and/or insurance claims.

## Sampling

### Surface Sampling:

- Alcohol prep wipes (recommended surfaces: TV's computer displays, plastic surfaces, furniture, windows, mirrors, internal surfaces of refrigerators; avoid painted surfaces)
- Microvacuum: 25 mm 0.45 micron or 0.8 microns pore size MCE cassettes (recommended surfaces: main living areas, from top of interior door frame, window frame, from corners of floors, door tracks, attic areas)
- Tape lifts (recommended surfaces- same as for alcohol prep wipes)\*

### Air sampling:

- PVC pre-weighed cassettes (for NIOSH 5000 only)
- Zefon CSI cassettes\*
- Zefon Air-o-cells\*
- 25 mm 0.45 micron pore size MCE cassettes; Flow rate 0.5-16 L/min, Min volume 400\*

Combustion By-Products	Equipment/Purpose	1 Day	2 Days	3 Days	4 Days	1 Week	2 Weeks
NIOSH 5000 (air)	Gravimetric analysis only for Carbon Black	\$255	\$191	\$152	\$124	\$105	\$69
NIOSH 5000 with Confirmation (air)	Includes TEM Confirmation	Call	\$1,088	\$869	\$713	\$594	\$395
Combustion By-Products- Level 1	Char + Soot (presumptive) + Ash	Call	\$455	\$363	\$297	\$248	\$165
Combustion By-Products- Level 1 PLUS	Char + Soot (presumptive) + Ash + Environmental Dust	Call	Call	Call	Call	Call	Call
Combustion By-Products- Level 2	Char + Soot (confirmation) + Ash	Call	\$1,088	\$869	\$713	\$594	\$395
Combustion By-Products- Level 3	Level 2 + Common Particle ID	Call	\$1,160	\$928	\$759	\$632	\$423
Combustion By-Products- Level 4	Level 3 + SEM/EDX + pH (corrosivity)	Call	\$1,332	\$1,066	\$872	\$727	\$485
Screening (P/A only)	Char + Soot (presumptive) + Ash	\$255	\$192	\$152	\$124	\$105	\$69

\*The Tape Lift, Zefon CSI Cassette and Zefon Air-o-cell cassettes are only acceptable for Presence/Absence or Level 1 screening.