



**SCHNEIDER LABORATORIES GLOBAL, INCORPORATED**  
2512 W. Cary Street, Richmond, VA 23220-5117  
804-353-6778 Toll Free - 800-785-LABS(5227) FAX - 804-359-1475  
www.slabin.com [info@slabin.com](mailto:info@slabin.com)

## *Desk Reference Guide & Fee Schedule*

### *Industrial Hygiene*

September 2011

Methods & Pricing (media and testing) subject to change



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## From the President

Dear Valued Client:

Thank you for allowing us to provide you a copy of our Industrial Hygiene Desk Reference Guide and Fee Schedule. We, Schneider Laboratories Global, Inc. (SLGI), are immensely pleased to inform you what we can offer to service all your industrial hygiene and environmental needs. SLGI is nationally and internationally recognized through many accrediting agencies, such as ISO/IEC 17025 certification, the American Industrial Hygiene Association (AIHA), the National Environmental Laboratory Accreditation Committee (NELAC), and the National Voluntary Laboratory Accreditation Program (NVLAP), VELAP, AIHA-ELLAP, NY-ELAP, CA-ELAP, NC-ELAP, SC-ELAP, and many other states.

Schneider Laboratories Global, Inc. specializes in the analysis of organic compounds, asbestos, lead, microbiology, bacteriology, mold, and metals in various matrices including paint, soil, wipes, building materials, product testing, R&D, wastewater, drinking water and hazardous wastes. This, along with the addition of Ecoli, Coliform, and ICP-MS analysis to SLGI's scope of work propels SLGI on all levels.

The laboratory is dedicated to serving the testing needs of occupational and environmental health and safety professionals worldwide. The hallmark of SLGI's success has been our ability to create partnerships with clients to provide accurate laboratory analysis at competitive prices, with no extra charge for weekend analysis. We service your needs globally and around the clock to meet all your analytical needs. With continuous growth and expansions in services and global opportunities, we are confident to say that we have the knowledge, skills, and abilities to service the needs for our current and potential clients.

If you have any questions, please do not hesitate to call us at 1-800-785-5227. Thank you, again!

Sincerely,

Najwa Abouzaki  
President

# Introduction

**Quality Control:** Schneider Laboratories Global has stringent quality control standards in compliance with ISO 17025 and EPA standards. Comprehensive quality control programs ensure the accuracy of analytical results. Schneider Laboratories Global employs a quality assurance director, a quality assurance officer and quality assurance coordinator, who maintains and implements an internal quality control program designed to monitor instrument performance and sample matrix effects using calibration standards, calibration verification standards, matrix and reagent blanks, surrogate standards, laboratory fortified ("spiked") samples, and sample duplicates. Additionally, external measures including double-blind samples, inter-laboratory testing programs, and proficiency testing programs such as NIOSH PAT, NLLAP/ELPAT, NVLAP Bulk Asbestos, Drinking Water and Waste Water studies, and NYELAP provide blind proficiency test samples to the laboratory on a regular basis. Quality control samples are regularly introduced into the sample flow at a rate of 5% (1 in 20) to 10% (1 in 10) in accordance with industry standards or method requirements. Proficiency test data and other quality control records are available upon request.

**Methodologies:** The sampling section of this schedule contains specific information on collection media, flow rates, recommended air volumes and special handling notes on chemicals submitted for analysis. This information has been tabulated from the methods cited. The recommended flow rate and sampling time is presented as a guide, and in most cases will provide an analytical detection limit at a fraction of the TLV. When sampling high concentrations of organic vapors on solid sorbent tubes, "breakthrough" can occur at these recommended sample volumes.

# Quality, Convenience and Service

## Quality

- American Industrial Hygiene Association (AIHA) accredited in all testing categories
- National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP) accredited for bulk asbestos fiber analysis
- National Lead Laboratory Accreditation Program (NLLAP)/EPA recognized for lead in paint chips, soil, and dust wipes
- Comprehensive quality control program
- Defensible data provided

## Service

- Standard turn around time for Industrial Hygiene testing is 3 business days from receipt of sample
- Quality control data included on chemistry reports (Upon Request)
- Toll free customer service number
- Results available by Email, Fax, and EDD
- Final reports signed by analyst and faxed or emailed to client
- Invoice mailed with hard copy report
- Hard copy report mailed with original chain of custody
- Calculated TWA's
- **FREE Standard Media**
- **FREE Shipping with \$150.00 or more per package**
- **NO Charge Pump and Cyclone Loan Program**

## No Hidden Charges

- No minimum sample billing
- Chain of custody forms provided

## No Conflict of Interest

- Laboratory testing only . . . no field or consulting services

## Payment Options

- Credit Cards accepted

## Pump Loan Program

Please see Appendix G for details

# Statement of Qualifications

Schneider Laboratories Global specializes in the analyses of organic compounds, asbestos and metals in various matrices including paint, soil, wipes, building materials, wastewater, drinking water and hazardous wastes.

SLGi is a global independent, AIHA (ISO-17025)/ NELAC /NVLAP accredited, global, commercial analytical testing laboratory located in Richmond, VA. The laboratory is dedicated to serving the testing needs of occupational / environmental health and safety professionals worldwide. The hallmark of SLGi's success has been our ability to create partnerships with clients to provide accurate laboratory analysis at competitive prices.

SLGi provides the security, instrumentation and storage to efficiently and reliably perform analyses. SLGi utilizes a 20,000 square feet facility which is evaluated on an on-going basis and renovated as needed to accommodate all analytical/safety requirements. Since its inception of our laboratory in 1987, SLGi has experienced tremendous growth in all analytical areas, including Industrial Hygiene, Environmental, Lead, Asbestos, Microscopy, Microbiology, Organics, Wet Chemistry, Drinking Water, R&D, Waste Water, Product Testing, Metals Testing, Storm Water and now Sea Water analysis. SLGI is recognized as a leader in laboratory testing.

**Internationally:** SLGi assists industrial professionals, engineers, consultants and government agencies worldwide to meet the ongoing and ever changing needs for industrial hygiene, environmental, water testing, lead, organic, metals, microbiology, and asbestos testing.

**Nationally:** SLGi was the first laboratory in the nation to receive accreditation for the analysis of lead based paint chips, soil and dust wipes through AIHA's ELLAP Program (ISO 17025). Schneider Laboratories is listed in the first group of laboratories in the United States to receive NELAC accreditation.

**Regionally:** SLGi was the first laboratory in Virginia to be licensed for asbestos analysis.

Schneider Laboratories Global's outstanding analytical achievements are due to a strong, focused Quality Assurance Program. This is essential to maintaining both control of all analytical processes in the laboratory and the confidence of the hundreds of clients that currently utilize the laboratory's services. The efforts to constantly improve the quality assurance program, as well as expand the services offered by the laboratory, are a great undertaking, and are being shouldered by each employee at every level of the laboratory's organization, from President to technician. Each employee is critical. Each client is our "Most Important."

**Our reputation** for courteous and responsive interaction with our customers is widespread.

**Our documentation process** is exact and complete.

**Our distinction** as an "**AUTHORITY**" in asbestos and lead testing has become a global customer response.

# Overall Scope of Services

**Airborne asbestos dust samples** are analyzed in accordance with NIOSH Method 7400, Issue 2, Counting Rules A.

**Bulk asbestos samples** are analyzed in accordance with EPA Method 600/M4/82/020, 600/R-93/116, NIOSH Method 9002, Issue 2, NY ELAP Item 198.1, and/or NY ELAP Item 198.6.

**Air filter metals samples** are analyzed by methods based on NIOSH 7082, 7048, 7024, 7030, 7300, and other NIOSH Methods. OSHA ID-121 Method is used for analytes not cited by NIOSH methods.

**TCLP metals samples** are processed in accordance with EPA SW-846 Method 1311 and the appropriate EPA 6010B or 7000-series for metals analysis.

**Solid metals samples** are analyzed by EPA 6010B, 7420, or other 7000 Series Methods coupled with EPA 3010A, 3020A, or 3050B Digestion Methods.

**Water samples for metals** are analyzed by EPA 200-series methods.

**Silica samples by FTIR** are analyzed using NIOSH 7602 and 7603.

**Gravimetric testing** includes Particulate Matter by 40 CFR 50, Appendix J and Total Suspended Particulate by 40 CFR 50, Appendix B Method.

**Industrial Hygiene Organics** are analyzed by methods including, but not limited to, NIOSH 1001, 1003, 1005, 1007, 1008, 1010, 1014, 1015, 1018, 1019, 1020, 1022, 1300, 1301, 1302, 1400, 1401, 1402, 1403, 1450, 1451, 1453, 1454, 1457, 1458, 1459, 1500, 1501, 1550, 1551, 1552, 1600M, 1602, 1603, 1604, 1606, 1609, 1610, 1612, 1613, 1615, 1616, 1617, 2000, 2002, 2004, 2005, 2007, 2010, 2011, 2012, 2013, 2500, 2505, 2506, 2508, 2516, 2520, 2526, 2527, 2530, 2537, 2538, 2542M, 2544, 2545, 2546, 4000, 5020, 5026, 5034M, 5038, 5042 Gravimetric, 5503, 5515M, 5517, 5518, 5523, 6004, 6005M, 6011, 6013, 7401, 7501, 7903, 7903M, 7904, 7904M, 7906, and S150; OSHA 7, 16, 21, 29, 50, 52, 52M, 55, 56, 57, 58, 58 Gravimetric, 62-M, 67, 70, 72, 74, 83, 99, 101, 102, 102M, 104, CIM, and CSI; OSHA ID 182, 188, 190, 202, 205, and 214; EPA IP-8; OSHA PV 2009, 2025, 2047, 2050, 2050M, 2060, 2060M, and client-supplied methods.

**Environmental Organics** are analyzed by methods including, but not limited to: Extraction & Preparation Methods - EPA SM5210B-9014, HACH8000-2097, SM18-21, 2540C-9064, SM18-21 2540D-9065, SM18-21 2540B 9063, 310.2-2008, 300.0 Rev. 2.1-2459, Lachat 10-107-06-1-B-2489, 10-107-06-2-2485, 3510C, 3550B, 3580B, 5030B, 5035; Cleanup Methods - EPA 3620B, 3665A; Determination of Organic Analytes - EPA 602, 608, 624, 625; EPA SW-846 8015M, 8011, 8020, 8081A, 8082, 8141A, 8151A, 8260B, 8270C.

Method Selection may be standard per analyte requested or based on a number of factors including, but not limited to: sample matrix, analyte(s) requested, and required detection limit. Methods are available in their original, published form in the SLI Company Library, in software versions located on the lab's server, and/or on the internet. Additionally, exact SLI protocol is described in the SLI Standard Operating Procedure for each method. Detailed method information is available from the analysis department or the SOP Manual

## **Our Mission**

To make our world a cleaner and safer place for current and future generations to enjoy:

- By providing environmental and industrial hygiene services to meet our clients' needs.
- By increasing awareness of the environment and industrial hygiene testing on daily basis.
- By conserving the company's resources with the same diligence that we would conserve our own personal resources.

## **Our Vision**

To be the worldwide recognized environmental and industrial hygiene laboratory to meet our customers need, and make our world a better place to live.

## **Our Values**

*Customers – Our clients are our number one priority. Always listening and being responsive to our clients, we do what we say and say what we do are our commitments. We honor these values with care.*

*Employees – We treat others the way we want to be treated. In all our dealings we strive to be friendly and courteous, as well as fair and compassionate.*

*Services – Providing the most accurate environmental and industrial hygiene services on time to satisfy our clients worldwide is what we do.*

# Industrial Hygiene Testing Policies

**Turn Around Time:** Same day, 24-hour, 48-hour, 72-hour and 5-day turn around times are available for most asbestos and lead paint analyses. Standard turn around time on most industrial hygiene analyses is 3 - 5 business days with priority and weekend analysis available upon advanced notification at **NO** additional charge

Priority 24-hours: 100% additional charge

Priority 48-hours: 75% additional charge.

Results are transmitted via fax, email, electronic deliverable, website

**Weekends:** Schneider Laboratories Global offers same day turn-around on Saturday and Sunday testing (except TEMS and send-out/referral tests). Advance notice of sample arrival and are required by Friday at 3 PM ET in order to receive Saturday and Sunday results. A waybill number must be forwarded to your Project Manager so the weekend staff may be able to track your package. Rush turn-around-time requests remain the same for weekends and weekdays. Turnaround time on send-out/re-feral tests is based on the client needs. Call your Project Manager to get available turnaround times.

**Air Express:** Next day delivery is available at no additional charge when submitting \$150 or more samples per package (**within the U.S.A. only**). Via UPS or FedEx.

SLI now offers shipment value protection thru UPS or DHL Globally, for a minimal charge. Only upon client request.

**Chain of Custody:** Chain of custody forms are provided at no additional charge. Chain of custody forms should be legible and complete. It is recommended that the chain is filled out online and that a separate form for each sample type (e.g. metals, organics, dusts, asbestos) be used. Include the following information when submitting samples to the laboratory. SLI will pre-print your COC upon request at no charge.

1. Client name, address (if not using pre-printed form)
2. Telephone number, fax number
3. Project name/number
4. Date and time of sample collection
5. Number and types of samples
6. Type of analysis requested on each sample
7. Sample identification, including time and air volumes
8. Purchase order information
9. Signature of person submitting samples
10. Sample identification numbers clearly marked on each sample submitted are necessary for cross-referencing and sample tracking throughout the laboratory. The number chosen to identify your samples should also be written on the chain of custody form submitted with the samples.
11. Indicate any special instructions

**Providing this information will help eliminate delays. Please submit the top two copies of the chain of custody form with your samples and retain the bottom copy for your records.**

**Blanks:** A minimum of one blank should be submitted for each type of industrial hygiene analysis requested in a given batch of samples. Generally, industrial hygiene methods recommend field blanks to be collected at a rate of 10% for inorganic analytes and at a rate of 2 to 10 field blanks per set for organic analytes. Specific methods may require alternate blank sampling schedules, and should be consulted for detailed information. Blanks act as a control for analysis by accounting for contamination that can occur during handling, storage, or shipment of samples. A field blank is opened and handled in the same manner as a sample, except no air should be drawn. Since blanks are analyzed as any other sample in the laboratory, they are priced the same as the analysis requested.

**Sample Collection Media:** FREE standard collection media (call your Project Manager for list) A nominal fee will be charged for passive monitors and all other collection media. Sampling media are routinely shipped by ground delivery United Parcel Service (UPS). If air express shipping is requested, the client will be billed for this service.

**Billing:** Invoicing is by sample group and payment is net 30 days.

International clients are Pre-Pay by credit card only.

**Credit Cards:** For your convenience, VISA, MasterCard and American Express are accepted. Line of credit established upon review a client's credit application. Terms are Net 30.

**Warranty:** All sample results are strictly confidential and will not be released to anyone other than the sample submitter without the permission of the client. Schneider Laboratories cannot be responsible for loss of samples, and reserves the right to refuse samples that are not collected on the appropriate sampling medium. Schneider Laboratories Global will employ qualified personnel to analyze samples and, where possible, will use established and recognized analytical testing procedures. Schneider Laboratories Global makes no other warranties expressed or implied.

**Schneider Laboratories *GLOBAL* Guarantee!!**

**Lowest price Nationally and Globally or we will save you an additional 20% off our book price.**

## Abbreviations

AA	Atomic Absorption	IC	Ion Chromatography
AG	Silver Membrane Treated Filter	ICP	Inductively Coupled Plasma Atomic Emission Spectrometry
CF	Cellulose Filter	IMP	Impinger
CHROM	Chromosorb Tube	ISE	Ion Selective Electrode
COLOR	Colorimetric	MCE	Mixed Cellulose Ester Filter
CP	Cellulose Pad	LG CT	Large Charcoal Tube
CT	Charcoal Tube	LG	Large
CV	Cold Vapor	LG SGT	Large Silica Gel Tube
DNPH	Dinitrophenylhydrazine	NPD	Nitrogen Phosphorous Detector
DT	Drying Tube	OVS	OSHA Versatile Sampler
ECD	Electron Capture Detector	PCM	Phase Contrast Microscopy
ETOM	Ethylene Oxide Passive Monitor	PET CT	Petroleum Charcoal Tube
FBT	Firebrick Tube	POVM	Passive Organic Vapor Monitor
FID	Flame Ionization Detector	PLM	Polarized Light Microscopy
FLR	Florisol Tube	PVC	Polyvinyl Chloride Filter
FM	Formaldehyde Passive Monitor	R	Referral
FPD	Flame Photometric Detector	PTFE	Teflon Filter
FTIR	Fourier Transform Infrared	SGT	Silica Gel Tube
GC	Gas Chromatography	SKC PM	SKC Passive Monitor
GC/MS	Gas Chromatography Mass Spectrometry	Sp	Special
GF/AA	Graphite Furnace/Atomic Absorption	SSS	Stainless Steel Screen
GFF	Glass Fiber Filter	TEM	Transmission Electron Microscopy
GRAV	Gravimetric	TITR	Titrimetric
GWS	Glass Wool Separator	TR	Treated
HG	Hydride Generation	UV	Ultraviolet Detector
HPLC	High Performance Liquid Chromatography		

# Compatibility Codes

This listing can be used to determine whether or not analytes can be sampled on the same collection media. If the compatibility code letters match, the analytes may be sampled together. If the compatibility codes do not match, a separate tube/cassette must be used.

The applicable desorption/extraction solvents identified by compatibility codes are listed here for your information.

- A. Carbon disulfide
- B. Benzene
- C. Methanol
- D. Toluene
- E. Carbon disulfide + 5% 2-propanol
- F. Nitric acid
- G. Ethanol
- H. Carbon disulfide + 1% 2-propanol alcohol
- I. Methylene chloride + 5% methanol
- J. Carbon disulfide + 1% methanol
- K. 0.5 N Sulfuric acid
- L. 1N Sulfuric acid
- M. Carbon disulfide + 1% 2-butanol
- N. Acetonitrile/Dimethyl sulfoxide
- O. Sodium thiosulfate
- P. Carbon disulfide: XAD-2
- Q. Methanol: XAD-7



## Industrial Hygiene Tests by Profile

### Aldehyde Profile

**\$190.00**

Acetaldehyde	Benzaldehyde	Crotonaldehyde	Glutaraldehyde
Acrolein	Butyraldehyde	Formaldehyde	

<b>Collection media:</b>	Coated Silica Gel Tube
<b>Method:</b>	NIOSH 2016M
<b>Flow rate (LPM):</b>	0.05-0.5
<b>Volume (Liters):</b>	1-30
<b>Analytical Technique:</b>	HPLC/UV

### Amines Profile

**\$125.00**

Aniline	N,N-Dimethylaniline	N,N-Dimethyl-p-Toluidine	o-Toluidine
2,4-Xylidine			

<b>Collection media:</b>	SKC 226-10 Tube
<b>Method:</b>	NIOSH 2002
<b>Flow rate (LPM):</b>	0.02-3.4*
<b>Volume (Liters):</b>	5.25-230*
<b>Analytical Technique:</b>	GC/FID

\* Flow rate and volume were averaged. Check method number for the individual Amines' requirements.

### Aromatic Hydrocarbon Profile

**\$90.00**

$\alpha$ -Methylstyrene	Cumene	Para-tert-Butyl Toluene	Vinyl Chloride
$\beta$ -Methylstyrene	Ethyl Benzene	Styrene	M, P-Xylene
Benzene	Naphthalene	Toluene	O-Xylene

<b>Collection media:</b>	CT, POVM
<b>Method:</b>	NIOSH 1501M
<b>Flow rate (LPM):</b>	0.1-0.5
<b>Volume (Liters):</b>	10
<b>Analytical Technique:</b>	GC/FID

**BTEX Profile****\$75.00**

Benzene	Ethyl Benzene	M, P-Xylene	O-Xylene
Toluene			

<b>Collection media:</b>	CT or POVM
<b>Method:</b>	NIOSH 1501
<b>Flow rate (LPM):</b>	0.05-1.2
<b>Volume (Liters):</b>	5-15
<b>Analytical Technique:</b>	GC/FID

**California-17****\$170.00**

Antimony	Chromium	Molybdenum	Vanadium
Arsenic	Cobalt	Nickel	Zinc
Barium	Copper	Selenium	
Beryllium	Lead	Silver	
Cadmium	Mercury	Thallium	

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Chlorinated Pesticide Profile****\$120.00**

Aldrin	$\gamma$ -Chlordane	Endosulfan I	Heptachlor Epoxide
$\alpha$ -BHC	4,4-DDD	Endosulfan II	Methoxychlor
$\beta$ -BHC	4,4-DDE	Endosulfan Sulfate	
$\gamma$ -BHC (Lindane)	4,4-DDT	Endrin	
$\alpha$ -Chlordane	Dieldrin	Heptachlor	

<b>Collection media:</b>	XAD-2 (OVS-2)
	SKC 226-30-16
<b>Method:</b>	OSHA 67M
<b>Flow rate (LPM):</b>	1
<b>Volume (Liters):</b>	60-1000
<b>Analytical Technique:</b>	GC-ECD

**Coal Tar Pitch Volatiles****\$150.00**

Anthracene	Chrysene	Phenanthrene	Pyrene
Benzo(a)pyrene			

<b>Collection media:</b>	GFF
<b>Method:</b>	OSHA 58
<b>Flow rate (LPM):</b>	2
<b>Volume (Liters):</b>	960
<b>Analytical Technique:</b>	GRAV/HPLC

Transfer filters to glass vials after sampling and wrap with aluminum foil to protect from light.  
Ship samples refrigerated by overnight delivery.

Note: HPLC is recommended for coal tar pitch volatiles that exceed 0.2 mg/m3.

**Diisocyanate Profile****\$150.00**

Hexamethylene Diisocyanate (HDI)	Toluene-2,4- Diisocyanate (2,4-TDI)
Methylene Bisphenyl-Isocyanate (MDI)	Toluene-2,6- Diisocyanate (2,6-TDI)

<b>Collection media:</b>	Coated GFF
<b>Method:</b>	OSHA 42 & 47
<b>Flow rate (LPM):</b>	0.2-1.0
<b>Volume (Liters):</b>	15-30
<b>Analytical Technique:</b>	HPLC/UV

Ship samples refrigerated by overnight delivery.  
Sample open faced.

**Full ICP Metals****\$260.00**

Antimony	Cadmium	Manganese	Thallium
Aluminum	Chromium	Molybdenum	Tin
Arsenic	Cobalt	Nickel	Titanium
Barium	Copper	Potassium	Vanadium
Beryllium	Iron	Selenium	Zinc
Boron	Lead	Silver	
Calcium	Magnesium	Sodium	

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Hydrocarbons Profile****\$220.00**

Cyclohexane	n-Dodecane	Methylcyclohexane	n-Pentane
Cyclohexene	n-Heptane	n-Nonane	n-Undecane
n-Decane	n-Hexane	n-Octane	

<b>Collection media:</b>	<i>Solid Sorbent Tube (Coconut shell charcoal, 100mg/50 mg)</i>
<b>Method:</b>	<i>NIOSH 1500</i>
<b>Flow rate (LPM):</b>	<i>Varies</i>
<b>Volume (Liters):</b>	<i>Varies</i>
<b>Analytical Technique:</b>	<i>GC/FID</i>

**Inorganic Acid Profile****\$135.00**

Hydrobromic Acid	Hydrofluoric Acid	Phosphoric Acid	Sulfuric Acid
Hydrochloric Acid	Nitric Acid		

<b>Collection media:</b>	<i>Large silica gel tube precleaned</i>
<b>Method:</b>	<i>NIOSH 7903</i>
<b>Flow rate (LPM):</b>	<i>0.2-0.4</i>
<b>Volume (Liters):</b>	<i>100</i>
<b>Analytical Technique:</b>	<i>IC</i>

**MB Environmental****\$88.00**

Aluminum	Beryllium	Copper	Vanadium
Arsenic	Cadmium	Iron	Zinc
Barium	Chromium	Manganese	

<b>Collection media:</b>	<i>37mm 0.8 <math>\mu</math> MCE</i>
<b>Method:</b>	<i>NIOSH 7300</i>
<b>Flow rate (LPM):</b>	<i>1.0-4.0</i>
<b>Volume (Liters):</b>	<i>200-2000</i>
<b>Analytical Technique:</b>	<i>ICP</i>

**Organophosphorus Pesticides****\$100.00**

Chlorpyrifos	Dichlorvos	Malathion	Parathion
Diazinon			

<b>Collection media:</b>	XAD-2 (OVS-2) SKC 226-30-16
<b>Method:</b>	OSHA 62M
<b>Flow rate (LPM):</b>	1
<b>Volume (Liters):</b>	60-1000
<b>Analytical Technique:</b>	GC-NPD

**Organic Solvent Profile****\$135.00**

Acetone	Ethylbenzene	Methylene chloride	Trichloroethylene
Benzene	Heptane	Octane	1,1,1-Trichloroethane
Carbon tetrachloride	Hexane	Styrene	1,1,2-Trichloroethane
Chlorobenzene	Methyl isobutyl ketone	Tetrachloroethylene	m,p-Xylene
1,2-Dichloroethane	MEK(2-Butanone)	Toluene	o-Xylene

<b>Collection media:</b>	CT
<b>Method:</b>	NIOSH 1501M
<b>Flow rate (LPM):</b>	0.2
<b>Volume (Liters):</b>	20
<b>Analytical Technique:</b>	GC/FID

**Polynuclear Aromatic Hydrocarbons****\$150.00**

Acenaphthene	Benzo(b)fluoranthene	Chrysene	Indeno(1,2,3cd)pyrene
Acenaphthylene	Benzo(k)fluoranthene	Dibenz(a,h)anthracene	Napthalene
Anthracene	Benzo(ghi)perylene	Fluoranthene	Phenanthrene
Benz(a)anthracene	Benzo(a)pyrene	Fluorene	Pyrene

<b>Collection media:</b>	PTFE Filter and washed XAD-2
<b>Method:</b>	NIOSH 5506
<b>Flow rate (LPM):</b>	2
<b>Volume (Liters):</b>	200-1000
<b>Analytical Technique:</b>	HPLC/UV & FL

Transfer filters to glass vials after sampling and wrap vials and tubes with aluminum foil to protect from light. Ship samples refrigerated by overnight delivery.

**Priority Pollutants****\$135.00**

Antimony	Cadmium	Lead	Selenium
Arsenic	Chromium	Mercury	Silver
Beryllium	Copper	Nickel	Thallium
Zinc			

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**RCRA-8****\$95.00**

Arsenic	Cadmium	Lead	Mercury
Barium	Chromium	Silver	Selenium

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Solder Operations Profile****\$85.00**

Antimony	Cadmium	Lead	Tin
Beryllium	Copper	Silver	Zinc

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE or wipe
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Target Analyte List****\$260.00**

Antimony	Chromium	Manganese	Vanadium
Aluminum	Cobalt	Nickel	Zinc
Arsenic	Copper	Potassium	
Barium	Iron	Selenium	
Beryllium	Lead	Silver	
Calcium	Mercury	Sodium	
Cadmium	Magnesium	Thallium	

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Toxic Metals Profile****\$65.00**

Arsenic	Beryllium	Cadmium	Chromium
Lead	Vanadium		

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP

**Welding Fume Metals Profile****\$115.00**

Aluminum	Chromium	Lead	Titanium
Antimony	Copper	Manganese	Vanadium
Beryllium	Cobalt	Molybdenum	Zinc
Cadmium	Iron	Nickel	

<b>Collection media:</b>	37mm 0.8 $\mu$ MCE
<b>Method:</b>	NIOSH 7300
<b>Flow rate (LPM):</b>	1.0-4.0
<b>Volume (Liters):</b>	200-2000
<b>Analytical Technique:</b>	ICP



## Industrial Hygiene Tests by Analyte

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Acenaphthene	83-32-9	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Acenaphthylene	208-96-8	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Acetaldehyde	75-07-0	SGT (Tr), 226-119	NIOSH 2016M	0.2-1	-	2-30	HPLC/UV		\$75.00		
Acetic Acid	64-19-7	Lg set, precleaned, 226-10-03	In House	0.2-0.5	-	20-100	HPLC/UV		\$75.00		
Acetic Acid	64-19-7	CT	NIOSH 1603	0.01-1	-	20-300	GC/FID		\$40.00		
Acetic Anhydride	108-24-7	225-9010 Treated GFF	OSHA 102	0.05-0.5		7.5	GC/NPD	Custom order due to limited shelf life.	\$55.00		
Acetone	67-64-1	CT or POVM-B	NIOSH 1300	0.01-0.2	A	0.5-3	GC/FID		\$30.00		
Acetonitrile	75-05-8	Lg CT, 226-09	NIOSH 1606	0.01-0.2	-	3-25	GC/FID		\$30.00		
Acid Mist	Various	Large SGT, precleaned,	NIOSH 7903	0.2-034		100	IC	See individual acid or inorganic acid profile.			
Acrolein	107-02-8	Lg XAD-2 (Tr), 226-117	OSHA 52	0.1	D	48	GC/NPD	Similar to NIOSH 2501	\$45.00		
Acrylamide	79-06-11	13 mm GFF + SGT, 226-10, 225-16, 225-32	OSHA 21	1		120	GC/NPD		\$45.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Acrylic Acid	79-10-7	Anasorb 708, 226-30-08, (2 in series)	OSHA 28	0.1	-	24	HPLC/UV		\$75.00		
Acrylonitrile	107-13-1	CT	NIOSH 1604	0.01-0.2		3.5 @ 2ppm-20	GC/FID		\$30.00		
Aldehyde Profile	Various	226-119 Treated SGT	NIOSH 2016M	0.05-0.5		1-30	HPLC/UV	See Industrial Hygiene Profiles for list of analytes	\$190.00		
Allyl Alcohol	107-18-6	CT or POVVM	NIOSH 1402	0.01-0.2	E	1-10	GC/FID		\$30.00		
Allyl Chloride	107-05-1	CT	NIOSH 1000	0.01-1		16-100	GC/FID		\$30.00		
Allyl Glycidyl Ether	106-92-3	Tenax, 226-35-03	NIOSH 2545	0.01-0.2		1.5 @ 5 ppm-8	GC/FID		\$30.00		
Aluminum	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	5-100	ICP		\$15.00		
Aluminum	N/A	37 mm 0.8 μ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
2- Aminoethanol	141-43-5	(Tr) XAD-2, 226-30-18	OSHA PV211	0.1		10	HPLC/UV	See Ethanolamine.			
Ammonia	7664-41-7	SGT (Tr), 226-10-06	NIOSH 6016M	0.1-0.5		0.1 @ 50 ppm - 96	IC		\$45.00		
Ammonia	7664-41-7	Anasorb 747 (Tr), 226-29	OSHA ID 188M	0.2		3	IC		\$45.00		
<i>n</i> - Amyl Acetate	628-63-7	CT or POVVM	NIOSH 1450	0.01-0.2	A	1-10	GC/FID		\$30.00		
Aniline	62-53-3	SGT, 226-10	NIOSH 2002	0.02-0.2	G	5-30	GC/FID	Amines, Aromatic	\$30.00		
Anthracene	120-12-7	226-30-04	NIOSH 5506	2		1000	HPLC		\$75.00		
Antimony	N/A	37 mm 0.8 μ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Arochlor 1242	53469-21-9	13 mm GFF + 226-39	NIOSH 5503	0.1		48	GC/ECD		\$40.00		
Arochlor 1248	12672-29-6	13 mm GFF + 226-39	NIOSH 5503	0.1		48	GC/ECD		\$40.00		
Aromatic Hydrocarbon Profile	Various	CT, POVVM	NIOSH 1501M	0.1-0.5		10	GC/FID	See Industrial Hygiene Profiles for list of analytes	\$90.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Arsenic	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	100-480	ICP		\$15.00		
Arsenic	N/A	37 mm 0.8 µ MCE	OSHA ID 105	2	F	50-480	GF/AA		\$35.00		
Arsenic	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	100-480	ICP		\$15.00		
Arsenic Trioxide	1327-53-3	Na <sub>2</sub> CO <sub>3</sub> -impregnated, 0.8-um MCE + backup pad, 225-3-010	NIOSH 7901	1-3		30-1000	GF/AA		\$35.00		
Arsine	7784-42-1	CT 226-01	NIOSH 6001	20		10	GF/AA		\$50.00		
Asbestos (Airborne TEM)	Various	25 mm 0.45 µ MCE	40 CFR 763 (AHERA)	4-10	-	1200	TEM	Call for competitive pricing. R			
Asbestos (Airborne TEM)	Various	25 mm 0.8 µ MCE	NIOSH 7402	0.5-16	-	400	TEM	Call for competitive pricing. R			
Asbestos (Bulk By PLM)	N/A		NIOSH 9002	N/A	-	N/A	PLM	Call for competitive pricing.			
Asbestos Fiber Count (Air)	N/A	37 mm or 25 mm 0.8 µ MCE	NIOSH 7400	0.5-16	-	400	PCM	Call for competitive pricing.			
Asphalt Fume	None	37-mm 2.0 µm PTFE	NIOSH 5042	1.0-4.0		28-400	GRAV	See Benzene Soluble Fraction & Total Particulate			
Barium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	50-2,000	ICP		\$15.00		
Benz[a]anthracene	56-55-3	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Benzaldehyde	100-52-7	SGT (Tr), 226-119	NIOSH 2016M	0.05-0.5		1 @ 0.2ppm-30	HPLC/UV		\$75.00	2 ppm	4 ppm, 15-min, DSEN
Benzene	71-43-2	CT or POVM	NIOSH 1501	0.2	A	5-30	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Benzene Soluble Fraction & Total Particulate (asphalt fume)	None	37-mm 2.0 µm PTFE	NIOSH 5042	1.5-2		28-700	GRAV		\$60.00		
Benzo[a]pyrene	50-32-8	226-30-04	NIOSH 5506	2		1000	HPLC		\$75.00		
Benzo[b]fluoranthene	205-99-2	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Benzo[g,h,i]perylene	191-24-2	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Benzo[k]fluoranthene	207-08-9	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Benzyl Chloride	100-44-7	CT or POVM	NIOSH 1003	0.01-0.2	A	6-50	GC/FID		\$30.00		
Beryllium	N/A	37 mm 0.8 µ MCE	NIOSH 7102	1-4	F	25-1,000	GF/AA		\$35.00		
Beryllium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	200-1000	ICP		\$15.00		
Beryllium	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	200-1000	ICP		\$15.00		
Biphenyl	92-52-4	Tenax, 226-35-01	NIOSH 2530	0.01-0.5	-	3-30	GC/FID	See Diphenyl	\$30.00		
Biphenyl-Phenyl ether Mixture	92-52-4 101-84-8	SGT, 226-10	NIOSH 2013	0.01-0.2		1 @ 1ppm-40	GC/FID		\$40.00		
Bis(2-Ethylhexyl) Phthalate	117-81-7	0.8 um cellulose ester membrane, 225-3-01	NIOSH 5020	1-3		10-200	GC/FID		\$40.00		
Bromine	7726-95-6	Prefilter+filter (PTFE, 0.5um + Ag membrane, 25 mm, 0.45 um, 225-9006	NIOSH 6011	0.3-1	P	8-360	IC	Protect cassettes from light.	\$45.00		
Bromochloromethane	74-97-5	CT	NIOSH 1003	0.02		5	GC/FID		\$30.00		
Bromoform	75-25-2	CT or POVM	NIOSH 1003	0.01-0.2	A	4-70	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
BTEX Profile	Various	CT, POVM	NIOSH 1501	0.05-1.2		5-15	GC/FID	See Industrial Hygiene Profiles for list of analytes	\$75.00		
1,3-Butadiene	106-99-0	CT, 226-37	NIOSH 1024	0.02		10	GC/FID		\$30.00		
1,3-Butadiene	106-99-0	CT, 226-73	OSHA 56	0.05		3	GC/FID		\$30.00		
<i>t</i> -Butanol	75-65-0	CT	NIOSH 1400	0.01-0.2		1-10	GC/FID		\$30.00		
2-Butanol	78-92-2	CT	NIOSH 1401	0.01-0.2		2-10	GC/FID		\$30.00		
<i>n</i> -Butanol	71-36-3	CT	NIOSH 1401	0.01-0.2		2-10	GC/FID		\$30.00		
2-Butoxyethanol	111-76-2	CT or POVM	NIOSH 1403	0.01-0.2		8-60	GC/FID		\$30.00		
2-Butoxyethyl Acetate	112-07-2	CT	OSHA 83	0.01-0.2	I	1-10	GC/FID		\$30.00		
<i>n</i> -Butyl Acetate	123-86-4	CT	NIOSH 1450	0.01-0.2		1-10	GC/FID		\$30.00		
Butyl Cellosolve (2-Butoxyethanol)	111-76-2	CT	NIOSH 1403	0.01-0.05		2-10	GC/FID	See 2-Butoxyethanol			
<i>n</i> -Butyl Glycidyl Ether	2426-08-6	CT	NIOSH 1616	0.1-0.2		15-30	GC/FID		\$40.00		
<i>p</i> -tert-Butyl Toluene	98-51-1	CT	NIOSH 1501	0.05-0.2		3-10	GC/FID		\$30.00		
<i>n</i> -Butylamine	109-79-9	Sulfuric acid treated SGT 226-53	NIOSH 2012	0.01-1		2-100	GC/FID		\$40.00		
Butyraldehyde	123-72-8	(Tr) SGT, 226-119	NIOSH 2016M	0.1-2		Varies	HPLC/UV		\$75.00	25 ppm	
Butyric Acid	107-92-6	SGT, 226-15	OSHA CIM	0.1		18	GC/FID		\$40.00		
Cadmium	N/A	37 mm 0.8 μ MCE	NIOSH 7048	1-3	F	25-1,500	GF/AA		\$35.00		
Cadmium	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	100-480	ICP		\$15.00		
Cadmium	N/A	37 mm 0.8 μ MCE	OSHA ID 125	2	F	100-480	ICP		\$15.00		
Calcium	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	5-200	ICP		\$15.00		
Calcium	N/A	37 mm 0.8 μ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Caprolactam	105-60-2	XAD-7 OVS Tube, 226-57	OSHA PV2012	1		100	HPLC/UV		\$75.00		
Caprolactam - Dust	105-60-2	XAD-7 OVS Tube, 226-57	OSHA PV2012	1		100	HPLC/UV		\$75.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Caprolactam - Vapor	105-60-2	XAD-7 OVS Tube, 226-57	OSHA PV2012	1		100	HPLC/UV		\$75.00		
Carbon Black	1333-86-4	5µ PVC, pre-weighed, 225-806	NIOSH 5000	1.5-2	-	85-570	GRAV	Cassette requires stainless steel back up pad.	\$15.00		
Carbon Disulfide	75-15-0	CT + Drying Tube, 226-01+226-44	NIOSH 1600M	0.01-0.2		2-25	GC/MS	Ship with drying tube attached to charcoal tube, refrigerated.	\$45.00		
Carbon Tetrachloride	56-23-5	CT or POVM	NIOSH 1003	0.01-0.2	A	3-150	GC/FID		\$30.00		
Cellosolve acetate	111-15-9	CT	NIOSH 1450	0.01-0.2		1-10	GC/FID		\$30.00		
Chlordane	57-74-9	XAD-2 OVS Tube, 226-30-16	OSHA 67	1		480	GC/ECD		\$40.00		
Chlorethane	75-60-3	CT	NIOSH 2519	0.02-0.05		0.3-3	GC/FID		\$50.00		
Chloride	7647-01-0	Large precleaned SGT, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Chlorinated Pesticide Profile	Various	XAD-2 (OVS-2) SKC 226-30-16	OSHA 67M	1		60-1000	GC/ECD	See Industrial Hygiene Profiles for list of analytes	\$120.00		
Chlorine	7782-50-5	Prefilter+filter (PTFE, 0.5um + Ag membrane, 25 mm, 0.45 um), 225-9006	NIOSH 6011	0.3-1	P	2-90	IC	Ag filter must be pre-cleaned.	\$45.00		
Chlorobenzene	108-90-7	CT or POVM	NIOSH 1003	0.01-0.2	-	1.5-40	GC/FID		\$30.00		
Chlorodifluoromethane	75-46-6	2 CT, 226-09, 226-01	NIOSH 1018M	0.01-0.05		1-4	GC/MS		\$45.00		
Chloroform	67-66-3	CT or POVM	NIOSH 1003	0.01-0.2	-	0.5-8	GC/FID		\$30.00		
Chloroprene	126-99-8	CT	NIOSH 1002	0.01-0.1		1.5-8	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Chlorpyrifos (Dursban)	2921-88-2	XAD-2 OVS Tube, 226-30-16	OSHA 62M	1	-	480	GC/NPD or GC/ECD		\$45.00		
Chromic Acid	18540-29-9	5 µ PVC, 225-806	NIOSH 7600	1-4	K	8-400	COLOR	Filter must be placed in a glass vial immediately after sampling.	\$35.00		
Chromium	N/A	37 mm 0.8 µ MCE	NIOSH 7024	1-3	F	10-1,000	GF/AA		\$35.00		
Chromium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	5-1,000	ICP		\$15.00		
Chromium (Hexavalent) Insoluble	N/A	5 µ PVC, 225-806	NIOSH 7600	1-4	K	8-400	COLOR	Filter must be placed in a glass vial immediately after sampling.	\$40.00		
Chromium (Hexavalent) Soluble	N/A	5 µ PVC, 225-806	NIOSH 7600	1-4	K	8-400	COLOR	Filter must be placed in a glass vial immediately after sampling.	\$35.00		
Chrysene	218-01-9	226-30-04	NIOSH 5506	2		1000	HPLC		\$75.00		
Citric Acid	77-92-9	37 mm 0.8 µ MCE	IN-HOUSE	1-2		600-1000	HPLC		\$75.00		
Coal Tar Naphtha	8030-03-6	CT	NIOSH 1550	0.01-0.2		20	GC/FID		\$30.00		
Coal Tar Pitch Volatiles	Various	GFF, 225-7	OSHA 58	2	-	960	GRAV	Place into vial after sampling and wrap vial with aluminum foil to protect from light. (Add <b>\$115.00</b> if HPLC is required).	\$35.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Coal Tar Pitch Volatiles Profile	Various	GFF, 225-7	OSHA 58	2		960	HPLC	See Industrial Hygiene Profiles for list of analytes and additional information	\$150.00		
Cobalt	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	50-2000	ICP		\$15.00		
Cobalt	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	50-480	ICP		\$15.00		
Coke Oven Emissions	Various	GFF, 225-7	OSHA 58	2	-	960	GRAV	Place into vial after sampling and wrap vial with aluminum foil to protect from light. (Add <b>\$115.00</b> if HPLC is required).	\$35.00		
Copper	N/A	37 mm 0.8 µ MCE	NIOSH 7029	1-3	-	50-1,500	AA		\$15.00		
Copper	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	50-1,000	ICP		\$15.00		
Copper	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	50-480	ICP		\$15.00		
Copper (Fume/Dust)	N/A	37 mm 0.8 µ MCE	NIOSH 7029	1-3		50-1500	AA		\$15.00		
Cresol	1319-77-3	XAD-7, 226-95	OSHA 32	0.1		24	HPLC/UV		\$75.00		
Crotonaldehyde	123-73-9	(Tr) SGT, 226-119	NIOSH 2016M	0.05-0.5		1 @ 0.2ppm-30	HPLC/UV		\$75.00		
Cumene	98-82-8	CT or POVM	NIOSH 1501	0.2	A	10-30	GC/FID		\$30.00		
Cyclohexane	110-82-7	CT or POVM	NIOSH 1500	0.2	A	2.5-5	GC/FID		\$30.00		
Cyclohexanol	108-93-0	CT	NIOSH 1402	0.01-0.2		1-10	GC/FID		\$30.00		
Cyclohexanone	108-94-1	CT or POVM	NIOSH 1300	0.01-0.2	A	1-10	GC/FID		\$30.00		
Cyclohexene	110-82-7	CT or POVM	NIOSH 1500	0.2	A	5-7	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compat ibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short- Term TWA
DDD	72-54-8	XAD-2 OVS Tube, 226-30- 16	OSHA 67M	1		60-1000	GC/ECD		\$40.00		
DDE	72-55-9	XAD-2 OVS Tube, 226-30- 16	OSHA 67M	1		60-1000	GC/ECD		\$40.00		
DDT	50-29-3	XAD-2 OVS Tube, 226-30- 16	OSHA 67M	1		60-1000	GC/ECD		\$40.00		
Decane	124-18-5	CT	NIOSH 1500	0.02-200		4	GC/FID		\$30.00		
Deltamethrin	52918-63- 5	XAD-2 OVS Tube, 226-30- 16	OSHA 70	1		60	GC/ECD		\$40.00		
Diacetone Alcohol	123-42-2	CT or POVM	NIOSH 1402	0.01-0.2	E	1-10	GC/FID		\$30.00		
Diazinon	333-41-5	XAD-2 OVS Tube, 226-30- 16	OSHA 62M	1	-	480	GC/NPD		\$45.00		
Dibenz[a,h]anthracene	53-70-3	Teflon filter + XAD-2, 226-30- 04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Dibutyl Phthalate	84-74-2	37 mm 0.8 µ MCE	NIOSH 5020	1-3		10-200	GC/FID		\$30.00		
1,2-Dichlorobenzene	95-50-1	CT	NIOSH 1003	0.02		3	GC/FID		\$30.00		
1,3-Dichlorobenzene	541-73-1	CT	NIOSH 1003	0.02		3	GC/FID		\$30.00		
1,4-Dichlorobenzene	106-46-7	CT	NIOSH 1003	0.02		3	GC/FID		\$30.00		
Dichlorodifluoromethane (R12)	75-71-8	2 CT (Lg & Sm in series)	NIOSH 1018M	0.01-0.05		1-4	GC/MS	Ship samples refrigerated by overnight delivery.	\$45.00		
1,1-Dichloroethane	75-34-3	CT or POVM	NIOSH 1003	0.01-0.2	A	0.5-15	GC/FID		\$30.00		
1,2-Dichloroethane (Ethylene Dichloride)	107-06-2	CT or POVM	NIOSH 1003	0.01-0.2	A	1-50	GC/FID		\$30.00		
Dichlorofluoromethane (R21)	75-43-4	CT, 2 in series, 226-25	NIOSH 2516M	0.01-0.05		0.25 @ 1000 ppm-3	GC/MS		\$45.00		
1,2-Dichlorotetrafluoroethane (R114)	76-14-2	2 CT (Lg & Sm in series)	NIOSH 1018M	0.01-0.05		1-4	GC/MS	Ship samples refrigerated by overnight delivery.	\$45.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Dichlorvos (DDVP)	62-73-7	XAD-2 OVS Tube, 226-30-16	OSHA 62M	1	-	480	GC/NPD		\$45.00		
Diethanolamine	111-42-2	(Tr) XAD-2, 226-30-18	OSHA PV2018	0.1	-	10	HPLC/UV		\$75.00		
Diethylamine	109-89-7	(Tr) XAD-7, 226-96	OSHA 41	0.2		10	HPLC/UV	Ship samples refrigerated by overnight delivery.	\$75.00		
Diethylene Glycol	111-46-6	XAD-7, 226-57	NIOSH 5523	1		60	GC/FID		\$30.00	10 mg/m <sup>3</sup>	
Diethylene Glycol Monoethyl Ether	111-90-0	CT	OSHA CIM	0.2		10	GC/FID		\$50.00	25 ppm	
Diethylenetriamine (DETA)	111-40-0	(Tr) XAD-2, 226-30-18	OSHA 60	0.1		10	HPLC/UV		\$75.00		
<i>N,N</i> -Diethylethanamine	75-50-3	XAD-7 10% phosphoric acid treated	OSHA PV2060	0.1		10	GC/FID	See Triethylamine (TEA)	\$75.00		
Diisobutyl Ketone	108-83-8	CT or POVM	NIOSH 1300	0.01-0.2	A	1-10	GC/FID		\$30.00		
Diisocyanate Profile	Various	GFF (Tr), 225-9002	OSHA 42 & 47	0.2-1.0 (Sample open faced)		15-30	HPLC/UV	See Industrial Hygiene Profiles for list of analytes and additional information	\$150.00		
<i>N,N</i> -Dimethyl Aniline	121-69-7	SGT, 226-10	NIOSH 2002	0.02		10	GC/FID		\$30.00		
Dimethyl Disulfide	624-92-0	CT	OSHA CIM	0.02		10	GC/MS		\$45.00		
Dimethyl Sulfide	75-18-3	CT	OSHA CIM	0.02		5	GC/MS		\$45.00		
Dimethylacetamide	127-19-5	SGT, 226-10	NIOSH 2004	0.01-1	C	15-80	GC/FID		\$30.00		
Dimethylamine	124-40-3	XAD-7 (Tr), 226-96	OSHA 34	0.2		10	HPLC	Ship samples refrigerated by overnight delivery.	\$75.00		
1,2-Dimethylcyclohexane	583-57-3	CT	NIOSH 1500	0.2		4	GC/FID		\$30.00		
Dimethylformamide	68-12-2	SGT, 226-10	NIOSH 2004	0.01-1	C	15-80	GC/FID		\$30.00		
<i>N,N</i> -Dimethyl- <i>p</i> -Toluidine	99-97-8	SGT, 226-10	NIOSH 2002	0.02-1.0		10	GC/FID		\$30.00	0.5 ppm	
Dioxane	123-91-1	CT or POVM	NIOSH 1602	0.01-0.2	A	0.5-15	GC/FID		\$30.00		
Diphenyl	92-52-4	Tenax, 226-35-01	NIOSH 2530	0.01-0.5		15 @ 0.2 ppm-30	GC/FID	See Biphenyl	\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Dipropylene Glycol Methyl Ether	34590-94-8	CT	OSHA 101	0.2	A	10	GC/FID		\$30.00		
Divinylbenzene	1321-74-0	CT (Tr), 226-73	OSHA 89	0.05		12	GC/FID		\$30.00		
Dust, Respirable	Various	5 µ PVC, pre-weighed & cyclone	NIOSH 0600	1.7	-	75-1,000	GRAV		\$15.00		
Dust, Total	Various	5 µ PVC, pre-weighed	NIOSH 0500	1.5-2	-	25-133	GRAV		\$15.00		
Endrin	72-20-8	XAD-2 OVS Tube 226-30-16	OSHA 67M	0.5-1		60-1000	GC/ECD		\$40.00		
Epichlorohydrin	106-89-8	CT	NIOSH 1010	0.01-0.2	-	2-30	GC/FID		\$30.00		
Ethanolamine	141-43-5	XAD-2(Tr), 226-30-18	OSHA PV2111	0.1		10	HPLC/UV		\$75.00		
2- Ethoxyethanol	110-80-5	CT	NIOSH 1403	0.01-0.05		1-6	GC/FID		\$30.00		
2- Ethoxyethyl Acetate	111-15-9	CT	NIOSH 1450	0.01-0.2		1-10	GC/FID		\$30.00		
Ethyl 2-Cyanoacrylate	7085-85-0	XAD-7 (Tr), 226-98	OSHA 55	0.01-0.2		12	HPLC	Keep cold.	\$75.00		
Ethyl Acetate	141-78-6	CT	NIOSH 1457	0.01-0.2		0.1-10	GC/FID	Ship samples refrigerated by overnight delivery.	\$30.00		
Ethyl Acrylate	140-55-5	CT or POVM	NIOSH 1450	0.01-0.2	A	1-10	GC/FID		\$30.00		
Ethyl Alcohol (Ethanol)	64-17-5	CT or POVM	NIOSH 1400	0.05	A	0.1-1	GC/FID		\$30.00		
Ethyl Benzene	100-41-4	CT or POVM	NIOSH 1501	0.2	A	10-24	GC/FID		\$30.00		
Ethyl Ether	60-29-7	CT or POVM	NIOSH 1610	0.01-0.2	-	0.25-3	GC/FID		\$30.00		
Ethylamine	75-04-7	(Tr) XAD-7, 226-96	OSHA 36	0.2		10	HPLC/UV		\$75.00		
Ethylcyclohexane	1678-91-7	CT	NIOSH 1500	0.2		4	GC/FID		\$30.00		
Ethylene Dibromide	106-93-4	CT, 226-01GWS	NIOSH 1008	0.02-0.2		0.1-25	GC/ECD	Ship in insulated container with dry ice.	\$40.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Ethylene Glycol	107-21-11	XAD-7 OVS Tube, 226-57	NIOSH 5523	0.5-2		5-60	GC/FID	Ship samples refrigerated by overnight delivery.	\$30.00		
Ethylene Oxide	75-21-8	Pet CT (Tr), 226-38-03	OSHA 50	0.1		24	GC/ECD		\$80.00		
Ethylene Oxide (Passive Monitor)	75-21-8	3M Ethylene Oxide Monitors #3551	OSHA 49	49.3 ml/min at 760 mm Hg and 25-C		15 ft/min	GC/ECD		\$80.00		
Ethylenediamine (EDA)	107-15-3	(Tr) XAD-2, 226-30-18	OSHA 60	0.1		10	HPLC/UV		\$75.00		
Fluoranthene	206-44-0	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Fluorene	86-73-7	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Fluorides, Gaseous	Various	(Tr) Cassette, 225-9001	NIOSH 7906	1-2		1-800	IC		\$45.00		
Fluorides, Particulate	Various	37 mm 0.8 μ MCE	NIOSH 7906	1-2		1-800	IC		\$45.00		
Fluorides, Total	Various	(Tr) Cassette, 225-9001	NIOSH 7906	1-2		1-800	IC		\$45.00		
FM (Fibers and Minerals by PLM)	EPA 600								\$25.00		
Formaldehyde	50-00-0	DNPH treated SGT, 226-119	NIOSH 2016	0.1-1.5		1 @ 0.3 mg/m <sup>3</sup> - 15 @ 2.5 mg/m <sup>3</sup>	HPLC/UV	Ship on ice if possible. Stable at room temperature for 4 days.	\$75.00		
Formaldehyde	50-00-0	SKC UMEx Passive Sampler No. 500-100	NIOSH 2016M	0.0286		15	HPLC/UV	Collects formaldehyde in the 5 ppb to 5 ppm range	\$75.00		
Formaldehyde	50-00-0	XAD-2 10% 2HMP	NIOSH 2541	0.01-0.10		1-36	GC/FID		\$50.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Formaldehyde	50-00-0	Lg XAD-2 (Tr), 226-117 for TWA; XAD-2 (Tr), 226-54 for STEL	OSHA 52	0.1	D	24	GC/NPD	For STEL sampling, collect a 15 minute sample at 0.2 l/min.	\$45.00		
Formic Acid	64-18-6	PTFE membrane 225-2708 washed silica gel, 226-10-03	NIOSH 2011	0.05-0.2		1 @ 5 ppm - 24	IC		\$45.00		
Furfural	98-01-1	XAD-2, 226-118	NIOSH 2529	0.02		1 @ 5 ppm - 5	GC/FID		\$45.00		
Gasoline	8006-61-9	CT, 226-01	NIOSH 1550M	10	A	10	GC/FID		\$30.00		
Glutaraldehyde	111-30-8	DNPH treated SGT, 226-119	NIOSH 2532	0.05-0.5		1 @ 0.2 - 30	HPLC/UV		\$75.00		
Glutaraldehyde	111-30-8	GFF (Tr); 225-9003	OSHA 64	1		15	HPLC/UV	Cover with foil during sampling and ship samples refrigerated by overnight delivery.	\$75.00		
Glycidol	556-52-5	CT	NIOSH 1608	0.01-1		5-100	GC/FID	Ship samples refrigerated by overnight delivery.	\$30.00		
Graphite	Various	5 µ PVC, pre-weighed	NIOSH 0500	1.5-2	-	25-133	GRAV		\$15.00		
Heptachlor	1024-57-3	XAD-2 OVS Tube, 226-30-16	OSHA 67M	1		60-1000	GC/ECD		\$40.00		
<i>n</i> -Heptane	142-82-5	CT or POVM	NIOSH 1500	0.2	A	4	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
1,6-Hexamethylene Diisocyanate (HDI)	822-06-0	GFF (Tr), 225-9002	OSHA 42	1	N	15	HPLC/UV	Sample open faced and ship samples refrigerated by overnight delivery. For TWA sampling, sample at 0.21/min. for a succession of four hours.	\$75.00		
n-Hexane	110-54-3	CT or POVM	NIOSH 1500	0.2	A	4	GC/FID		\$30.00		
2-Hexanone	591-78-6	CT or POVM	NIOSH 1300	0.01-0.2		1-10	GC/FID		\$30.00		
Hydrobromic Acid	10035-10-6	Lg SGT, pre-cleaned, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Hydrocarbons Profile	Various	Solid Sorbent Tube (Coconut shell charcoal, 100 mg/50 mg)	NIOSH 1500	Varies		Varies	GC/FID	See Industrial Hygiene Profiles for list of analytes	\$220.00		
Hydrocarbons, Total	Various	CT, 226-01	IN HOUSE	0.2	A	4	GC/FID	Quantitated as hexane.	\$30.00		
Hydrochloric Acid	7647-01-0	Lg SGT, pre-cleaned, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Hydrofluoric Acid	7664-39-3	Lg SGT, pre-cleaned, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Hydrogen Sulfide	7783-06-4	Filter + solid sorbent tube (ORBO 34)	NIOSH 6013	.1 - 1.5		1.2-40	IC	Method recommends 0.2 LPM	\$45.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Hydroquinone	123-31-9	37 mm 0.8 µ MCE	NIOSH 5004	1-4	-	30-180	HPLC/UV	Stabilize filter immediately after sampling by immersing filter in vial containing 1% acetic acid.	\$75.00		
Indeno[1,2,3-cd]pyrene	193-39-5	Teflon filter + XAD-2, 226-30-04	NIOSH 5506	2		1000	HPLC/UV		\$75.00		
Inorganic Acid Profile	Various	Large Silica gel tube precleaned, 226-10-03	NIOSH 7903	0.2-0.4		100	IC	See Industrial Hygiene Profiles for list of analytes	\$135.00		
Iodine	7553-56-2	CT (Tr), 226-67	NIOSH 6005	0.5-1		15-225	IC		\$45.00		
Iron	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	5-100	ICP		\$15.00		
Iron	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Isoamyl Acetate	123-92-2	CT or POVM	NIOSH 1450	0.01-0.2	A	1-10	GC/FID		\$30.00		
Isoamyl Alcohol	123-51-3	CT	NIOSH 1402	0.01-0.2		1-10	GC/FID		\$30.00		
Isobutyl Acetate	110-19-0	CT or POVM	NIOSH 1450	0.01-0.2	A	1-10	GC/FID		\$30.00		
Isobutyl Alcohol	78-83-1	CT or POVM	NIOSH 1401	0.01-0.2	H	1-10	GC/FID		\$30.00		
Isophorone	78-59-1	Petroleum CT, 226-38 or POVM	NIOSH 2508	0.01-1	A	2-25	GC/FID		\$30.00		
Isophorone Diisocyanate	4098-71-9	GFF (Tr), 225-9002	OSHA 42M	1		15	HPLC/UV	Ship cooled.	\$75.00		
Isopropyl Acetate	108-21-4	CT	NIOSH 1454	0.02-0.2		0.1-9	GC/FID		\$30.00		
Isopropyl Alcohol	67-63-0	CT or POVM	NIOSH 1400	0.01-0.2	M	0.2-3	GC/FID		\$30.00		
Isopropyl Ether	108-20-3	CT	NIOSH 1618	0.01-0.05		0.1-3	GC/FID		\$60.00		
Kerosene	8008-20-6	CT	NIOSH 1550	0.01-0.2	A	10	GC/FID		\$30.00		
Lead	N/A	37 mm 0.8 µ MCE	NIOSH 7082	1-4	F	200-1500	AA		\$15.00		
Lead	N/A	37 mm 0.8 µ MCE	NIOSH 7105	1-4	F	1-1500	GF/AA		\$35.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Limonene	5989-27-5	CT	NIOSH 1552	0.05		24	GC/FID		\$30.00		
Lithium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	100-2,000	ICP		\$15.00		
Magnesium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	5-67	ICP		\$15.00		
Magnesium	N/A	37 mm 0.8 µ MCE, 225-3-01	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Malathion	121-75-5	XAD-2 OVS Tube, 226-30-16	OSHA 62M	1	-	60	GC/NPD		\$45.00		
Maleic Anhydride	108-31-6	XAD-2 (Tr) & XAD-2 (in series) 226-30-07 & 226-30	OSHA 25	0.1	-	20	HPLC/UV	Cover with foil and ship samples refrigerated by overnight delivery.	\$75.00		
Manganese	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	5-200	ICP		\$15.00		
Mercaptan, Ethyl	75-08-1	GFF (Tr), 225-9007	NIOSH 2542M	0.1-0.2		10-150	GC/MS	1 to 4 samples Protect samples from light.	\$75.00		
Mercaptan, Ethyl	75-08-1	GFF (Tr), 225-9007	NIOSH 2542M	0.1-0.2		10-150	GC/MS	5 or more samples Protect samples from light.	\$50.00		
Mercaptan, Methyl	74-93-1	GFF (TR); 225-9007	NIOSH 2542M	0.1-0.2		10 @ 5ppm-150	GC/MS	1 to 4 samples Protect samples from light.	\$75.00		
Mercaptan, Methyl	74-93-1	GFF (TR); 225-9007	NIOSH 2542M	0.1-0.2		10 @ 5ppm-150	GC/MS	5 or more samples Protect samples from light.	\$50.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Mercaptan, <i>n</i> -Butyl	109-79-5	GFF (Tr), 225-9007	NIOSH 2542M	0.1-0.2		10-150	GC/MS	1 to 4 samples Protect samples from light.	\$75.00		
Mercaptan, <i>n</i> -Butyl	109-79-5	GFF (Tr), 225-9007	NIOSH 2542M	0.1-0.2		10-150	GC/MS	5 or more samples Protect samples from light.	\$50.00		
Mercaptans (Methyl, Ethyl and <i>n</i> -Butyl)	Various	Glass filter; mercuric acetate, 225-9007	NIOSH 2542M	0.1-0.2		10 @0.5 ppm - 150	GC/MS	Protect samples from light.	\$90.00		
Mercury (Inorganic Vapor)	N/A	Hopcalite, 226-17-1A	NIOSH 6009	0.15-0.25	F	2 @ 0.05 mg/m <sup>3</sup> - 100	CV/AA		\$35.00		
Mercury (Particulate)	N/A	37 mm 0.8 μ MCE	OSHA ID 145	2	F	10	CV/AA		\$35.00		
Mercury (Vapor)	N/A	SKC PM	NIOSH 6009	Passive	-	240-480 min	CV/AA		\$35.00		
Methacrylic Acid	79-41-4	Anasorb 708, 226-30-08, (2 in series)	OSHA PV2005	0.1		24	HPLC/UV		\$75.00		
Methanol	67-56-1	Silica Gel	NIOSH 2000	0.02-0.20		1-5	GC/FID	See Methyl Alcohol.			
2- Methoxyethanol	109-86-4	CT	NIOSH 1403	0.01-0.05		6-50	GC/FID		\$30.00		
2- Methoxyethyl Acetate	110-49-6	CT	OSHA 79	0.1		48	GC/FID		\$30.00		
Methyl & Ethyl Methacrylate	80-62-6	XAD-2, 226-30-06	NIOSH 2537	0.01-0.05	Q	1 @ 100 ppm - 8	GC/FID	Ship samples refrigerated by overnight delivery.	\$30.00		
Methyl ( <i>n</i> -amyl) Ketone	110-43-0	CT or POVM	NIOSH 1301	0.01-0.2	J	1-25	GC/FID		\$30.00		
Methyl Acetate	79-20-9	CT	NIOSH 1458	0.01-0.2		0.2-10	GC/FID	Ship samples refrigerated by overnight delivery.	\$30.00		
Methyl Acrylate	96-33-3	CT	NIOSH 1459	0.01-0.2		1-5	GC/FID		\$30.00		
Methyl Alcohol	67-56-1	SGT, 226-51	NIOSH 2000	0.02-0.2	-	1-5	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Methyl Cellosolve	109-86-4	CT	OSHA 79	0.1		48	GC/FID	See 2-Methoxyethanol.			
Methyl Cellosolve Acetate	110-49-6	CT	NIOSH 1451	0.01-0.2	A	1-10	GC/FID		\$45.00		
Methyl Chloride	74-87-3	2 CT (Lg & Sm in Series)	NIOSH 1001	0.01-0.1		0.4-3	GC/FID	Ship samples refrigerated by overnight delivery.	\$40.00		
Methyl Chloroform (1,1,1 Trichloroethane)	71-55-6	CT or POVM	NIOSH 1003	0.01-0.2	A	0.1-8	GC/FID		\$30.00		
Methyl Cyclohexane	108-87-2	CT or POVM	NIOSH 1500	0.2	A	4	GC/FID		\$30.00		
Methyl Cyclohexanone	1331-22-8	Porapak Q	NIOSH 2521	0.01-0.05		1.5	GC/FID		\$50.00		
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ORBO 90 or SKC Anasorb 747	NIOSH 2500	0.01-0.2	-	1-12	GC/FID		\$30.00		
Methyl Iodide	74-88-4	CT	NIOSH 1014	0.01-1		15-50	GC/FID		\$30.00		
Methyl Isobutyl Carbinol	108-11-2	CT	NIOSH 1402	0.01-0.2		1-10	GC/FID		\$30.00		
Methyl Isobutyl Ketone	108-10-1	CT or POVM	NIOSH 1300	0.01-0.2	A	1-10	GC/FID		\$30.00		
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	CT -2 in series; 226-37	NIOSH 1615	0.1-0.2		2-96	GC/FID		\$30.00		
1- Methyl-2-pyrrolidinone	872-50-4	CT, 226-01	OSHA CIM	0.2		10	GC/FID		\$30.00	10 ppm, skin	
Methylamine	74-89-5	(Tr) XAD-7, 226-96	OSHA 40	0.02		10	HPLC/UV		\$75.00		
Methylene Bisphenyl Isocyanate (MDI)	101-68-8	GFF (Tr), 225-9002	OSHA 47	1	N	15	HPLC/UV	Sample open faced and ship samples refrigerated by overnight delivery.	\$75.00		
Methylene Chloride	75-09-2	2 CT (in series)	NIOSH 1005	0.01-0.2		0.5-2.5	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compat ibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short- Term TWA
4,4'-Methylene Dianiline (MDA)	101-77-9	GFF (Tr), 225-9004	OSHA 57	1	-	100	GC/ECD	After sampling transfer filter to glass vial containing 2 ml deionized water.	\$40.00		
$\alpha$ -Methylstyrene	98-83-9	CT, 226-01	NIOSH 1501	0.05		24	GC/FID		\$30.00		
$\beta$ -Methylstyrene	873-66-5	CT, 226-01	NIOSH 1501	0.05		24	GC/FID		\$30.00		
Mineral Spirits	68551-17-7	CT	NIOSH 1550	0.01-0.2		10	GC/FID		\$30.00		
Molybdenum	N/A	37 mm 0.8 $\mu$ MCE	NIOSH 7300	1-4	F	5-67	ICP		\$15.00		
Molybdenum	N/A	37 mm 0.8 $\mu$ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Morpholine	110-91-8	226-98	OSHA PV2123	0.2	-	20	GC/FID		\$45.00		
Naphtha (VM + P)	8032-32-4	CT or POVM	NIOSH 1550	0.01-0.2	A	10	GC/FID		\$30.00		
Naphthalene	91-20-3	CT or POVM	NIOSH 1501	0.4	A	200	GC/FID		\$30.00		
Nickel	N/A	37 mm 0.8 $\mu$ MCE	NIOSH 7300	1-4	F	5-1000	ICP		\$15.00		
Nickel	N/A	37 mm 0.8 $\mu$ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00		
Nicotine	54-11-5	XAD-2, 226-30-04	NIOSH 2544	1		60 @0.5 mg/m <sup>3</sup> - 400	GC/NPD		\$30.00		
Nitric Acid	7697-37-2	Lg SGT, pre-cleaned, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Nitric Oxide	10102-43-9	Oxidiser & (2) Tube 226-40 in series	OSHA ID 190	0.2		3	IC		\$45.00		
Nitrobenzene	98-95-3	SGT, 226-10	NIOSH 2005	0.01-1.0		10-150	GC/FID		\$30.00		
Nitroethane	79-24-3	XAD-2, 226-30-02	NIOSH 2526	0.01-0.05		1.5-3	GC/FID		\$30.00		
Nitrogen Dioxide	10544-72-6	TEA-MIS, 226-40-02	OSHA ID 182	0.2		3	IC		\$45.00		
<i>n</i> -Octane	111-65-9	CT or POVM	NIOSH 1500	0.2	A	4	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Oil Mist, Mineral	8042-47-5	37 mm, 0.8 µm MCE, 5µ PVC, 225-3-01	NIOSH 5026	1-3	-	20 @ 5 mg/m <sup>3</sup> - 500	FTIR	Ship a 10ml bulk sample separately.	\$55.00		
Organic Solvent Profile	Various	CT	NIOSH 1501M	0.2		20	GC/FID	See Industrial Hygiene Profiles for list of analytes	\$135.00		
Organophosphorous Pesticides Profile	Various	XAD-2 (OVS-2) SKC 226-30-16	OSHA 62M	1		60-1000	GC/NPD	See Industrial Hygiene Profiles for list of analytes	\$100.00		
Oxalic Acid	144-62-7	37 mm 0.8 µ MCE or 5 µ MCE or PVC	OSHA CIS	1-2.0		600	HPLC/UV		\$75.00		
Paraffin Wax	8002-74-20	GFF	OSHA CIM	1		90	GC/FID		\$30.00		
Parathion	56-38-2	XAD-2 OVS Tube, 226-30-16	OSHA 62M	1	-	480	GC/NPD		\$45.00		
Pentachloroethane	76-01-7	Porapak R	NIOSH 2517	0.01-0.2		1-10	GC/ECD		\$60.00		
Pentachlorophenol	87-86-5	XAD-7, 226-97 (2) in series	OSHA 39	0.2		48	HPLC/UV		\$75.00		
<i>n</i> -Pentane	109-66-0	CT or POVM	NIOSH 1500	0.05	A	2	GC/FID		\$30.00		
2-Pentanone (Methyl Propyl Ketone)	107-87-9	CT or POVM	NIOSH 1300	0.01-0.2	A	1-10	GC/FID		\$30.00		
Perchloroethylene	127-18-4	CT or POVM	NIOSH 1003	0.01-0.2	A	0.2-40	GC/FID		\$30.00		
Petroleum Ether	8032-32-4	CT	NIOSH 1550	0.01-0.2		20	GC/FID		\$30.00		
Petroleum Naphtha	8002-05-9	CT	NIOSH 1550	0.01-0.2		20	GC/FID		\$30.00		
Phenanthrene	85-01-8	Teflon filter + XAD-2/226-30-04	NIOSH 5506	2.0		1000	HPLC/UV		\$75.00		
Phenol	108-95-2	XAD-7, 226-95	OSHA 32	0.1	-	24	HPLC/UV		\$75.00		
Phenyl Ether	101-84-8	CT	NIOSH 1617	0.01-0.2		1-50	GC/FID		\$30.00		
Phenyl Glycidyl Ether	122-60-1	CT, 226-01	NIOSH 1619	0.01-1		80-150	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Phosphoric Acid	7664-38-2	Lg SGT, pre-cleaned	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		
Phthalic Anhydride	85-44-9	GFF 225-7 (2), Treated	OSHA 90	1		75	HPLC/UV	Call Lab for instructions on media. Requires treated GFF to be prepared at lab before shipping.	\$75.00		
Polychlorinated Biphenyls (PCBs)	Various	GFF + FLR, 226-39/225-16/225-32	NIOSH 5503	0.1	-	48	GC/ECD		\$45.00		
Polynuclear Aromatic Hydrocarbons	Various	Teflon filter + XAD-2	NIOSH 5506	2		200-1000	HPLC/UV & FL	See Industrial Hygiene Profiles for list of analytes and additional information	\$150.00		
Propylene Glycol Methyl Ether Acetate	108-65-6	CT	OSHA CIM	0.1		10	GC/FID		\$30.00		
<i>n</i> -Propyl Acetate	109-60-4	CT or POVM	NIOSH 1450	0.01-0.2	A	1-10	GC/FID		\$30.00		
<i>n</i> -Propyl Alcohol	71-23-8	CT or POVM	NIOSH 1401	0.01-0.2	M	1-10	GC/FID		\$30.00		
Propylene Glycol	57-55-6	OVS XAD-7, 226-57	NIOSH 5523	0.5-2		5-60	GC/FID	Ship in insulated container with dry ice.	\$30.00	mg/m <sup>3</sup>	
Propylene Glycol Methyl Ether	107-98-2	CT	OSHA CIM	0.1		10	GC/FID		\$30.00		
Propylene Glycol Monomethyl Ether	108-65-6	CT	OSHA CIM	0.1		10	GC/FID		\$30.00	50 ppm	
Propylene Glycol Propyl Ether	1569-01-3	CT	OSHA CIM	0.1		10	GC/FID		\$30.00		
Propylene Oxide	75-56-9	CT	NIOSH 1612	0.01-0.2	A	0.5-5	GC/FID		\$30.00		
Pyrene	129-00-0	Teflon filter + XAD-2	NIOSH 5506	2		1000	HPLC/UV		\$75.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Pyrethrum	8003-34-7	GFF, 225-709	NIOSH 5008	1-3		20-400	HPLC		\$75.00		
Pyrethrum	8003-34-7	XAD-2 (OVS); 226-30-16	OSHA 70	1		60	GC/ECD		\$40.00		
Pyridine	110-86-1	CT	NIOSH 1613	0.01-1	-	18-150	GC/FID		\$30.00		
Rubber Solvent	8030-30-6	CT	NIOSH 1550	0.01-0.2		20	GC/FID		\$30.00		
Selenium	N/A	37 mm 0.8 µ MCE	OSHA 125	2	F	10-40	ICP		\$15.00		
Silica (Amorphous)	Various	5 µ PVC (PW) & Cyclone	NIOSH 7501	1.7		300-900	XRD	Includes dust. R	\$180.00		
Silica (Crystalline)	14464-46-1	5 µ PVC (PW) & Cyclone	NIOSH 7500	1.7		300-900	XRD	Includes dust. R	\$90.00		
Silica (Crystalline)	60676-86-0	5 µ PVC (PW) & Cyclone	NIOSH 7602	1.7	-	400-800	FTIR	Does not include dust.	\$55.00		
Silica in Coal Mine Dust	14808-60-7	5 µ PVC (PW) & Cyclone	NIOSH 7603	1.7		300-1000	FTIR		\$55.00		
Silver	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	200-2000	ICP		\$15.00		
Silver	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	200-480	ICP		\$15.00		
Sodium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	13-2,000	ICP		\$15.00		
Solder Operations Profile	N/A	37 mm 0.8 µ MCE or wipe	NIOSH 7300	1.0-2.0		200-500	ICP	See Industrial Hygiene Profiles for list of analytes	\$85.00		
Stoddard Solvent	8052-41-3	CT	NIOSH 1550	0.01-0.2	A	10	GC/FID		\$30.00		
Styrene	100-42-5	CT or POVM	NIOSH 1501	1	A	5-14	GC/FID		\$30.00		
Sulfur Dioxide	7446-09-5	GFF (Tr), 225-9005	NIOSH 6004	0.5-1.5		4-200	IC		\$45.00		
Sulfur Dioxide	7446-09-5	(TR) 226-80	OSHA ID 200	0.1	-	12	IC		\$45.00		
Sulfuric Acid	7664-93-9	Lg SGT, pre-cleaned, 226-10-03	NIOSH 7903	0.2-0.5		3-100	IC		\$45.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
	Tellurium	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00	
1,1,2,2-	Tetrabromoethane	79-27-6	SGT, 226-10	NIOSH 2003	0.2-1		50-100	GC/FID		\$30.00	
1,1,2,2-	Tetrachloro-1,2-Difluoroethane (Freon 112)	76-12-0	CT	NIOSH 1016	0.01-0.035		0.5-2	GC/FID		\$30.00	
1,1,1,2-	Tetrachloro-2,2-Difluoroethane (Freon 112A)	76-11-9	CT	NIOSH 1016	0.01-0.035		0.5-2	GC/FID		\$30.00	
1,2,4,5-	Tetrachlorobenzene	95-94-3	13mm PTFE and XAD-2, 225-17-03/226-30-04	NIOSH 5517	0.01-0.2		3-12	GC/ECD		\$40.00	
1,1,2,2-	Tetrachloroethane	79-34-5	PET CT, 226-38 or POVM	NIOSH 1019	0.01-0.2	-	3-30	GC/FID		\$30.00	
1,1,2,2-	Tetrachloroethane	79-34-5	SOLID SORBENT TUBE (Anasorb CMS, 100/50 mg)	NIOSH 2562	0.01-0.2	-	3-30	GC/FID		\$30.00	
	Tetrachloroethylene	127-18-4	CT or POVM	NIOSH 1003	0.01-0.2	A	0.2-40	GC/FID		\$30.00	
	Tetrahydrofuran	109-99-9	CT or POVM	NIOSH 1609	0.01-0.2	A	1-9	GC/FID		\$30.00	
	Thallium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	200-2000	ICP		\$15.00	
	Tin	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	100-500	ICP		\$15.00	
	Tin	N/A	37 mm 0.8 µ MCE	OSHA ID 125	2	F	10-480	ICP		\$15.00	
	Titanium	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1-4	F	5-100	ICP		\$15.00	
	Titanium Dioxide	1377-70-0	5µ PVC, pre-weighed	NIOSH 0500	1.5-2	-	25-133	GRAV		\$15.00	
	Toluene	108-88-3	CT or POVM	NIOSH 1501	0.2	A	2-8	GC/FID		\$30.00	

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
Toluene-2,4-Diisocyanate (TDI)	584-84-9	GFF (Tr), 225-9002	OSHA 42	1	N	15	HPLC/UV	Sample open faced and ship samples refrigerated by overnight delivery.	\$75.00		
Toluene-2,6-Diisocyanate	91-08-	GFF (Tr), 225-9002	OSHA 42	0.2-1.0		15-170	HPLC/UV	Sample open faced and ship samples refrigerated by overnight delivery.	\$75.00		
o-Toluidine	95-53-4	SGT, 226-10	NIOSH 2002	0.1		9-40	GC/FID		\$30.00		
Total Hydrocarbons as Hexane	Various	CT, 226-01	NIOSH 1500	0.01-0.2		5-20	GC/FID		\$30.00		
Toxic Metals Profile	N/A	37 mm 0.8 µ MCE	NIOSH 7300	1.0-4.0		200-500	ICP	See Industrial Hygiene Profiles for list of analytes	\$65.00		
Tributyl Phosphate	126-73-8	MCEF; 225-3-01	NIOSH 5034	1.5		90	GC/MS		\$50.00		
1,1,2-Trichloroethane (Freon 113)	76-13-1	CT or POVM	NIOSH 1020	0.01-0.05	A	0.1-3	GC/FID		\$30.00		
1,2,3-Trichlorobenzene	87-61-6	13mm PTFE and XAD-2, 225-17-03/226-30-04	NIOSH 5517	0.01-0.2		3-12	GC/ECD		\$40.00		
1,2,4-Trichlorobenzene	120-82-1	13mm PTFE and XAD-2, 225-17-03/226-30-04	NIOSH 5517	0.01-0.2		3-12	GC/ECD		\$40.00		
1,3,5-Trichlorobenzene	108-70-3	13mm PTFE and XAD-2, 225-17-03/226-30-04	NIOSH 5517	0.01-0.2		3-12	GC/ECD		\$40.00		
1,1,2-Trichloroethane	79-00-5	CT or POVM	NIOSH 1003	0.01-0.2	A	0.2-40	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compatibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short-Term TWA
1,1,1-Trichloroethane (Methyl Chloroform)	71-55-6	CT	NIOSH 1003	0.2		8	GC/FID		\$30.00		
Trichloroethylene	79-01-6	CT or POVM	NIOSH 1022	0.01-0.2	A	1-30	GC/FID		\$30.00		
1,2,3-Trichloropropane	96-18-4	CT or POVM	NIOSH 1003	0.01-0.2	A	0.6-60	GC/FID		\$30.00		
Triethanolamine	102-71-6	GFF	OSHA CIM	1.0		120	GC/FID		\$30.00		
Triethylamine (TEA)	121-44-8	XAD-7 10% phosphoric acid treated	OSHA PV2060	0.1		10	GC/FID	N,N-Diethylethanamine	\$75.00		
Triethylene Glycol	112-27-6	XAD-7 OVS Tube	NIOSH 5523	0.5-2		5-60	GC/FID		\$30.00		
Triethylenetetramine	112-24-3	XAD-2 (Tr), 226-30-18	OSHA 60	0.1		10	HPLC/UV		\$75.00	1 ppm, skin	
Trimellitic Anhydride (TMA)	552-30-7	37 mm 0.8 PVC Co-polymer	NIOSH 5036	1.5-2		400	GC/FID		\$40.00		
1,2,3-Trimethylbenzene	526-73-8	CT	NIOSH 1501	0.01-0.2		10-30	GC/FID		\$30.00		
1,2,4-Trimethylbenzene	95-63-6	CT	NIOSH 1501	0.01-0.2		10-30	GC/FID		\$30.00		
1,3,5-Trimethylbenzene	108-67-8	CT	NIOSH 1501	0.01-0.2		10-30	GC/FID		\$30.00		
Turpentine	8006-64-2	CT	NIOSH 1551	0.01-0.2	A	10	GC/FID		\$30.00		
Vanadium	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	5-2000	ICP		\$15.00		
Vanadium Pentoxide	1314-61-1	37 mm 0.8 μ MCE	NIOSH 7300M	1-4	F	5-2000	ICP		\$15.00		
Vinyl Acetate	108-05-4	ORBO 92	NIOSH 1453	0.1		24	GC/FID		\$30.00		
Vinyl Bromide	593-60-2	Lg CT, 226-09	NIOSH 1009	0.01-0.2	-	2-10	GC/FID	Ship in insulated container with dry ice.	\$40.00		
Vinyl Chloride	75-01-4	2 CT (in series)	NIOSH 1007	0.05		0.7-5	GC/FID		\$30.00		
Vinyl Toluene	622-97-9	CT or POVM	NIOSH 1501	0.2	A	10-24	GC/FID		\$30.00		
Vinylidene Chloride	75-35-4	CT	NIOSH 1015	0.01-0.2		5	GC/FID		\$30.00		

Test Name	CAS Number	Collection Media	Method	Flow Rate (LPM)	Compat ibility	Volume (Liters)	Analytical Technique	Profile/Notes	Fee	8-hr TWA	Ceiling or Short- Term TWA
Welding Fume Metals Profile	N/A	37 mm 0.8 μ MCE	NIOSH 7300	2	F	200-500	ICP, AA	See Industrial Hygiene Profiles for list of analytes	\$115.00		
Wood Dust	Various	5μ PVC, pre-weighed	NIOSH 0500	1.7	-	50	GRAV		\$15.00		
<i>m,p</i> -Xylene	1330-20-7	CT	NIOSH 1501	0.02-0.2		2-30	GC/FID		\$30.00		
<i>o</i> -Xylene	95-47-6	CT	NIOSH 1501	0.02-0.2		2-30	GC/FID		\$30.00		
Zinc	N/A	37 mm 0.8 μ MCE	NIOSH 7030	1-3	F	2-400	AA		\$15.00		
Zinc	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	5-200	ICP		\$15.00		
Zirconium	N/A	37 mm 0.8 μ MCE	NIOSH 7300	1-4	F	5-200	ICP		\$15.00		



## SCHNEIDER LABORATORIES GLOBAL, INCORPORATED

2512 W. Cary Street, Richmond, VA 23220-5117  
804-353-6778 Toll Free - 800-785-LABS (5227) FAX - 804-359-1475  
www.slabinc.com [info@slabinc.com](mailto:info@slabinc.com)



### EPA Methamphetamine Laboratory Cleanup Testing Guidelines

Summary of the four (4) inspection phases (some inspections may be combined)

#### Inspection 1 Demolition Phase analysis recommendation:

17 Metal Scan by ICP taken on wipe + Phosphorus	\$225.00
Library Search by GC/MS taken on 3m Charcoal Badge	\$155.00
Ethylene Glycol & Propylene Glycol on wipe GC/FID	\$155.00
VOC & SVOC Library Search on Wipe by GC/MS	\$155.00
Total Dust in air	\$18.00
PH, Sulfate Chloride on Wipe by IC	\$55.00
GRO & DRO on wipe	\$55.00
Ammonia, Nitrate, Nitrite Wipe on Lachet	\$55.00

#### Inspection 2 Chemical Application / New Drywall Phase analysis:

Formaldehyde Air by HPLC	\$75.00
Formaldehyde Wipe by HPLC	\$75.00
RCRA 8 Metals Solid (includes required Lead & Copper)	\$85.00
RCRA 8 Metals Wipe (includes required Lead & Copper)	\$85.00
Mercury Solid	\$45.00
Mercury Wipe	\$45.00

#### Inspection 3 & 4 Final Clearance Sulfur Deposition test (SDT)

Sulfur wipe by IC	\$45.00
Sulfur Air by IC	\$45.00
RCRA 8 metals by ICP Wipe (includes required lead & Copper)	\$85.00
RCRA 8 metals by ICP Air (includes required lead & Copper)	\$85.00
Mercury Air	\$45.00
Mercury wipe	\$45.00
Ethylene Glycol & Propylene Glycol air by GC/FID	\$155.00

#### Disposal

Complete TCLP (SVOC, VOC, RCRA 8, Pest/Herb)	\$875.00
6ft dumpster (recommended 4 samples from different sections)	
12ft dumpster (recommended 8 samples from different sections)	

FREE Media, FREE Sample Methods, FREE Shipping, FREE Pump Loaner Program  
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## Sampling Media Pricing

Media	Media ID #	Media Description	Price (ea.)	Unit	Index		
<b>Cassettes / Metals</b>							
37mm MCEF		Lead / Metals	\$2.00	ea.			
37mm MW		Matched Weighed	\$4.00	ea.			
37mm UNW		Unweighed PVC	\$4.00	ea.			
37mm PW PVC		Pre-Weighed PVC 2pc	\$4.00	ea.			
37mm PW PVC		Pre-Weighed PVC 3pc	\$4.00	ea.			
<b>Cassettes / Asbestos</b>							
25mm MCEF		PCM Asbestos	\$2.00	ea.			
25mm MCEF		TEM Asbestos	\$3.00	ea.			
<b>Cassettes</b>							
37mm GFF	225-7	Coal Tar Pitch	\$4.00	ea.			
37mm MCE Tr (sodium carbonate)	225-9001		\$10.00	ea.			
37mm GFF Tr (1-2pyrdl(peperazine)	225-9002	Isocyanates	\$10.00	ea.	a		
37mm GFF Tr(2,4,dinitrophenylhydrazine))	225-9003	Gluderaldehye	\$10.00	ea.	a		
37mm FGG Tr(Sulfuric Acid)	225-9004		\$7.00	ea.			
37mm MCE Tr (sodium carbonate)	225-9005	MDA	\$10.00	ea.			
37mm Teflon	225-9006	Cholnne	\$30.00	ea.			
37mm GFF Tr (mercuric acetate)	225-9007	Mercaptan	\$8.00	ea.	a		
37mm GFF (nitrate impregnated)	225-9014	Ozone	\$10.00	ea.			
Stainless Steel Back Up Pad	225-26	Carbon Black	\$25.00	ea.			
Swinex	225-32+226-39Fl. Tube	PCB kit	\$8.00	ea.			
37mm 2ug PTFE Filter	225-17-07		\$8.00	ea.			
37mm 1.0ug PTFE Filter	225-17-01		\$5.00	ea.			
25mm PTFE Washed Filter	225-1708+225-3-25		\$8.00	ea.			
<b>Filters</b>							
TSP Filters			\$8.00	ea			
TSPW Filters (weighed)			\$8.00	ea			
PM 10 Filters			\$8.00	ea			
PW Whatman Filters			\$2.50	ea			
<b>Badges</b>							
Passive Sampler	500-100	UMEX Formaldehyde	\$22.00	ea			
3M 3500		3M 3500 Badge	\$18.00	ea			
3M 3520		3M 3520 Badge	\$21.00	ea			
3M 3551 (ethylene Oxide)		3M 3551 Badge	\$22.00	ea			
Mercury Badge Holder		Mercury Badge Holder	\$31.00	ea			

Mercury Badge		Mercury Badge	\$8.00	ea			
OVM Badge		OVM Badge (charcoal)	\$17.00	ea			
OVM Badge		OVM Badge (Anasorb 747)	\$17.00	ea			
<b>Tubes</b>							
Small Charcoal Tube	226-01		\$2.00	ea.			
Lg. Charcoal Tube	226-09		\$2.00	ea.			
Silica Gel Tube (75/150)	226-10		\$3.00	ea.			
Silica Gel Tube specially clean	226-10-03		\$3.00	ea.			
Silica Gel Tube (150/300)	226-10-04		\$3.00	ea.			
Silica Gel Tube (sulfuric acid)	226-10-06		\$4.00	ea.	<b>b</b>		
Silica Gel Tube (260/520)	226-15		\$4.00	ea.			
Sorbent Tube	226-17-1A	For Mercury	\$4.00	ea.			
XAD (2-hydroxymethylpiperidine)	226-27		\$5.00	ea.	<b>b</b>		
Soda lime Tube	226-28		\$5.00	ea.			
Anasorb 747 (sulfuric acid)	226-29		\$4.00	ea.	<b>b</b>		
XAD-2 Tube (40-80)	226-30		\$3.00	ea.			
XAD-2 Tube (set of 2)	226-30-02		\$7.00	ea.			
XAD-2 Tube (50/100)	226-30-04		\$3.00	ea.			
XAD-2 Tube (p-anisidine)	226-30-07		\$7.00	ea.			
Anasorb 708	226-30-08		\$4.00	ea.			
XAD-2 Tube/GFF (OVS)	226-30-16		\$13.00	ea.	<b>b</b>		
XAD-2 Tube	226-30-18	(naphthylisothiocyanate)	\$4.00	ea.	<b>b</b>		
Tenax Tube (10/20)	226-35-01		\$5.00	ea.	<b>b</b>		
Charcoal Tub, JXC	226-36		\$3.00	ea.			
Anasorb CSC, Charcoal Tube	226-37	set of 2	\$4.00	ea.			
Treated Charcoal Tube	226-38-03		\$5.00	ea.	<b>a</b>		
Florisil Tube	226-39		\$3.00	ea.			
NO/NO2 Tubes (set of 30)	226-40	front tube NO2 nitrogen dioxide, middle tube molecular sieve, back tube NO nitric oxide	\$15.00	ea.	<b>a</b>		
NO2 Tubes Only	226-40-02	NO2 Tube	\$4.00	ea.	<b>b</b>		
Gas Chrom-R Tube (sulfuric acid)	226-42-02	Gas Chrom-R	\$4.00	ea.	<b>b</b>		
Drying Tube	226-44	Drying Tube	\$2.00	ea.			
Silica Gel Tube (50/100)	226-51	Silica Gel	\$2.00	ea.			
XAD-2 Tube (2 hydroxymethyl)	226-54	XAD-2	\$4.00	ea.	<b>b</b>		
Tenax Tub / GFF (OVS)	226-56	Tenax / GFF (OVS)	\$20.00	ea.	<b>b</b>		
XAD-7/GFF (OVS)	226-57	XAD-7/GFF (OVS)	\$15.00	ea.	<b>b</b>		
XAD-2/Quartz Filter (OVS)	226-58	XAD-2/Quartz Filter(OVS)	\$15.00	ea.	<b>b</b>		
Coconut CT (potassium hydroxide)	226-67	Coconut CT	\$3.00	ea.	<b>b</b>		

Coconut CT (t-butylcatechol)	226-73	Coconut CT	\$3.00	ea.	<b>b</b>		
Anasorb 747 (potassium hydroxide)	226-80	Anasorb 747	\$3.00	ea.	<b>b</b>		
Anasorb 747 (70/140)	226-81A	Anasorb 747	\$2.00	ea.			
Anasorb 747 (200/400)	226-83	Anasorb 747	\$2.00	ea.			
XAD-7 (50/100)	226-95	XAD-7 (50/100)	\$3.00	ea.			
XAD-7 (chloride)	226-96	XAD-7	\$3.00	ea.	<b>b</b>		
XAD-7 (1) specially cleaned (2) regular (set of 3 tubes)	226-97	XAD-7	\$10.00	ea.			
<b>TUBES Cont.</b>							
XAD-7 (phosphoric acid)	226-98	XAD-7	\$3.00	ea.	<b>b</b>		
Chromasorb-102	226-107	Chromasorb-102	\$3.00	ea.			
Chromosorb 106	226-111A	Chromasorb-106	\$15.00	ea.			
Porapak-Q	226-115	Porapak-Q	\$2.00	ea.			
XAD-2 (2-hydroxymethylpiperidine)	226-117	XAD-2 Lg.	\$4.00	ea.	<b>b</b>		
XAD-2 (2-hydroxymethylpiperidine)	226-118	XAD-2 Sm.	\$4.00	ea.	<b>b</b>		
Silica Gel (2,4 dinitrophenylhydrazine)	226-119	Silica Gel	\$5.00	ea.	<b>a</b>		
Anasorb (75/150)	226-121	Anasorb (75/150)	\$5.00	ea.			
Orbo 34	20211	Orbo 34	\$3.00	ea.			
Orbo 43	20258	Orbo 43	\$3.00	ea.			
Orbo 49P	20350	Orbo 49P	\$15.00	ea.			
Orbo 53	20365	Orbo 53	\$3.00	ea.			
Orbo 90	20358	Orbo 90	\$3.00	ea.			
Orbo 92	20362	Orbo 92	\$3.00	ea.			
		<b>Key</b>					
		<b>A</b>	Refrigerated				
		<b>B</b>	Limited Shelf Life				
		<b>C</b>	Custom Order				



**SCHNEIDER LABORATORIES  
GLOBAL, INCORPORATED**  
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# Appendix

# A



# SCHNEIDER LABORATORIES GLOBAL, INCORPORATED

## NEW CLIENT INFORMATION FORM

### CLIENT INFORMATION

COMPANY NAME:			
CONTACT:			
E-MAIL:		PHONE:	
MOBILE:		FAX:	

### CLIENT ADDRESS

BILLING ADDRESS:			
STREET ADDRESS:			
CITY:	STATE:	ZIPCODE:	

### REPORTING/SHIPPING ADDRESS *(if different than above)*

STREET ADDRESS:			
CITY:	STATE:	ZIPCODE:	

### REPORTING OPTIONS

FAX:		E-MAIL:	
------	--	---------	--

### PAYMENT INFORMATION

CREDIT CARD TYPE:	VISA <input type="checkbox"/>	MASTERCARD <input type="checkbox"/>	AMERICAN EXPRESS <input type="checkbox"/>
CREDIT CARD #:		AUTH.#:	EXP:
CARDHOLDER NAME:			
CARDHOLDER SIGNATURE:			
I hereby release and authorize the use of the above credit card to Schneider Laboratories, Inc. <i>Note: The following Credit Application (Page -2-) must be submitted if you are seeking Net 30 day credit terms.</i>			

### INDUSTRY

GOVERNMENT AGENCY <input type="checkbox"/>	INDUSTRIAL HYGIENE <input type="checkbox"/>	ASBESTOS / LEAD <input type="checkbox"/>
ENVIRONMENTAL <input type="checkbox"/>	OTHER <input type="checkbox"/>	

### HOW DID YOU FIND OUT ABOUT SCHNEIDER LABORATORIES?

--

Please FAX to: 804-359-1475

QUESTIONS, call us at: 804-353-6778 or 800-785-LABS (5227)

2512 W. Cary Street, Richmond, VA 23220



# SCHNEIDER LABORATORIES GLOBAL, INCORPORATED

## CREDIT APPLICATION AND AGREEMENT

### BUSINESS INFORMATION

LEGAL BUSINESS NAME:			
DOING BUSINESS AS (DBA):		YEARS IN BUSINESS:	
TYPE OF BUSINESS:	CORPORATION <input type="checkbox"/> L.L.C. <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> SOLE PROPRIETORSHIP <input type="checkbox"/>		
TAX ID #:		D&B (if known):	
OWNER/PRINCIPAL NAME:			
ACC. PAYABLE CONTACT NAME:			
ACC. PAYABLE PHONE:		A/P FAX:	
		A/P EMAIL:	

### TRADE REFERENCES

<b>1</b>	COMPANY NAME:			
	ACCOUNT #:			
	CONTACT:			
	PHONE:		FAX:	
<b>2</b>	COMPANY NAME:			
	ACCOUNT #:			
	CONTACT:			
	PHONE:		FAX:	
<b>3</b>	COMPANY NAME:			
	ACCOUNT #:			
	CONTACT:			
	PHONE:		FAX:	

### BANK REFERENCE

BANK NAME:		OFFICER:	
BRANCH NAME:		PHONE:	
CHECKING ACCT. #:			
SAVINGS ACCT. #:			

### AGREEMENT

<p>The undersigned represents that he or she is an officer or agent of applicant and is duly authorized to act on its behalf. If extended credit pursuant to this Credit Agreement, the applicant hereby agrees to the following terms: Payment is due in full 30 days from the date of invoice. In the event that account is not paid in full by the due date, applicant will inform Schneider Laboratories, Inc. of the reason for nonpayment and will pay a late payment charge of 1.5% per month (18% annual) computed on the unpaid balance. The applicant agrees to pay all cost and reasonable attorney's fees incurred in connection with collection of any past due balances on this account. Any Homestead or other exemptions are hereby waived to the extent allowed by law. Schneider Laboratories, Inc. is hereby authorized to investigate the references listed above concerning applicant's credit history and financial responsibility. This Credit Application and Agreement supersedes any prior agreement between the parties and may not only be modified in writing.</p>			
AUTHORIZED SIGNATURE:		DATE:	
PRINTED NAME & TITLE:			

### CREDIT CARD GUARANTEE

<p>By signing below, client hereby authorizes Schneider Laboratories, Inc. to charge all past due invoices (60 days past the invoice date) to the company credit card listed on page one of this document. SLi will notify client prior to charging the credit card. Delinquent accounts (older than 90 days) are subject to collections; all collection expenses, attorney's fee and court costs are the responsibility of the creditor.</p>			
AUTHORIZED SIGNATURE:		DATE:	
PRINTED NAME & TITLE:			



**SCHNEIDER LABORATORIES  
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# Appendix

## B



## **SCHNEIDER LABORATORIES GLOBAL, INC. TERMS AND CONDITIONS**

Schneider Laboratories Global, Inc. ("Schneider", which includes all of Schneider's officers, directors, employees, agents, and all other representatives and/or agents of any kind [collectively, Schneider]) hereby expressly disclaims any and all liability for both any and all indirect and consequential damages which might be asserted or alleged by any person or entity – including but not limited to the person or entity submitting samples for testing its client(s), agents, representatives or third parties [collectively, the Submitting Company] – arising from or in any way relating to Schneider's performance of any and all services – including but not limited to analysis, testing and reporting regarding samples provided by Submitting Company – performed in connection with, or in any way relating to, this Chain-of-Custody form, the samples referenced herein, the Purchase Order referenced herein.

Schneider's liability is hereby expressly limited to the direct cost of correcting any error or omission in the performance of its services (which shall be strictly limited to the direct out-of-pocket cost of correctly performing the specific analyses or tests referenced herein, or the direct out-of-pocket cost of correctly reporting any result of Schneider's work).

By submitting, signing, or initialing this form,

(1) the person submitting, signing, or initialing this form represents and warrants that he is authorized by the Submitting Company, all clients of the Submitting Company, and all other persons or entities who may be affected, to execute this form and all related forms and agreements and to bind all such persons/entities to all terms and conditions set forth herein; and

(2) the Submitting Company hereby represents and warrants that it is authorized by all clients of the Submitting Company, and all other persons or entities who may be affected, to execute this form and all related forms and agreements and to bind all such persons/entities to all terms and conditions set forth herein; and

(3) on behalf of all such clients, persons and entities, the Submitting Company hereby agrees to all terms and conditions set forth herein and expressly waives and releases any and all claims, whether past or future, for indirect or consequential damages as described herein.



**SCHNEIDER LABORATORIES  
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# Appendix

# C



# SCHNEIDER LABORATORIES GLOBAL, INCORPORATED

2512 W. Cary Street, Richmond, VA 23220-5117  
804-353-6778 Toll Free - 800-785-LABS (5227) FAX - 804-359-1475  
www.slabinc.com info@slabinc.com



## Supply Request Form

**Shipping and handling charges will be applied.**

**Requested by:**

Account Number: \_\_\_\_\_ Date/Time: \_\_\_\_\_

CompanyName: \_\_\_\_\_

Requester's Name: \_\_\_\_\_ Phone# \_\_\_\_\_

Requester's Signature: \_\_\_\_\_

**Ship To:**

Company/Site Name: \_\_\_\_\_

Ship Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Date Needed: \_\_\_\_\_ Ship Via: \_\_\_\_\_

Qty	Supply Items
	Ghost Wipes
	Gloves, Latex - 100 count box
	Centrifuge Tubes
	Cassettes - 25mm Asbestos
	Cassettes - 37mm Metals
	Cassettes - 37mm PW (2 pc)
	Cassettes - 37mm PW (3 pc)

Qty	Supply Items
	Plastic Bottles - 125ml w/HNO <sub>3</sub>
	Plastic Bottles - 500ml w/HNO <sub>3</sub>
	Plastic Bottles - 1L w/HNO <sub>3</sub>
	VOA's w/HCL
	Amber Jars - 1L w/preservative
	Jars - 4oz.
	Jars - 8oz.

Qty	Supply Items
	Asbestos/Soil Bag - 3 x 5
	Asbestos/Soil Bag - 4 x 6
	Sample Bag - 12 x 12
	Waybills - Fed Ex
	Waybills - UPS
	COC - Standard COC
	COC - Organic COC

Qty	Additional Items

Qty	Additional Items

Qty	Additional Items

**Order Taken By:** \_\_\_\_\_

**Date/Time Shipped:** \_\_\_\_\_



**SCHNEIDER LABORATORIES  
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# Appendix

## D

**Schneider Laboratories Global, Inc.**  
**WBE/DBE Certifications**

*Client must confirm SLI certification status before negotiating projects that require WBE/DBE certification*

	<b>DEPT./AGENCY/MUNICIPALITY</b>	<b>CERTIFICATION, LICENSE, APPROVAL</b>	<b>CERTIFICATION ID NUMBER</b>
<b>Delaware</b>	Department of Transportaton	Disadvantaged Business Enterprise	C-708-03-31-2005
<b>Delaware</b>	Delaware Office of Minority and Women Business Enterprise	Woman Owned Business	DE07081029
<b>District of Columbia</b>	Metropolitan Washington Airports Authority	Local Disadvantaged Business Enterprise	LD99-104
<b>Florida</b>	Broward College Office of Supplier Relations and Diversity	Certified Diverse Vendor	na
<b>Florida</b>	The School Board of Broward County	Woman Business Enterprise	7007-5760-95(BIC)
<b>Illinois</b>	Peoria Housing Authority	Minority/Woman Business Enterprise	SLI-W-08-05
<b>Indiana</b>	City of Indianapolis Office of the Mayor Minority Busness Development Program	Women Business Enterprise	na
<b>Maryland</b>	State of Maryland Department of General Services Small Business Reserve Program	Small Business Enterprise	SB10-7267
<b>Maryland</b>	Washington Suburban Sanitary Commission	Minority Business Enterprise	na
<b>Missouri</b>	Office of Administration, Division of Purchasing & Materials Management	Woman-owned Business Enterprise	W00841
<b>Missouri</b>	Illinois Department of Human Rights Human Relations Department	Certification of Affirmative Action Compliance	00000065175-2D
<b>Missouri</b>	<i>The Missouri Regional Certification Committee (MRCC):</i> <ul style="list-style-type: none"> <li>• Metro St. Louis</li> <li>• City of St. Louis - Lambert</li> <li>• City of Kansas City Human Relations Department &amp; KCI Airport</li> <li>• Kansas City Area Transportation Authority</li> <li>• Missouri Department of Transportation</li> <li>• Mid-America Regional Council</li> <li>• East-West Gateway Council of Governments</li> </ul>	Disadvantaged Business Enterprise	na
<b>New York</b>	State Dept. of Economic Development	Woman-owned Business Enterprise	17010
<b>North Carolina</b>	Department of Administration, Office for Historically Underutilized Businesses	Woman-owned Business Enterprise	na
<b>Ohio</b>	City of Columbus Equal Business Opportunity Commission Office	(RMB) Registered Minority Business	na
<b>Pennsylvania</b>	City of Philadelphia Office of Economic Diversity	Woman-owned Business Enterprise (WBE)	8454120GC
<b>Tennessee</b>	The Governor's Office of Diversity Business Enterprise	Woman Owned Business	072506-05
<b>Texas</b>	South Central Texas Regional Certification Agency (SCTRCA)	Small Business Enterprise (SBE) Women Business Enterprise (WBE)	211039112
<b>Virginia</b>	Department of Minority Business Enterprise (VDOT) (SWAM)	Disadvantaged (Minority) Owned and Controlled Business Enterprise (DBE)	S880



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# Appendix

# E

# Acceptance Policy

## BASIC REQUIREMENTS

- Samples must be submitted with a SLGi Submittal form or equivalent, with full instructions including tests requested and turn-around-time desired.
- It is the client's responsibility to communicate specific methods or detection limits required.
- Samples must be appropriately sealed to prevent leakage or cross-contamination.
- Samples must be clearly labeled.
- Samples should be collected on the appropriate media for the test and/or submitted in the appropriate vessel type. (See Sampling Guide for information per test.)
- Samples should be shipped in a manner to preserve the sample's safety, quality, and integrity.
- It is the client's responsibility to ship the samples to the lab at the appropriate temperature for sample preservation.
- Sample temperature will be monitored upon receipt for temperature-sensitive samples. The receipt temperature for organics environmental samples is displayed on the final report. Clients may be notified of the receipt temperature upon request.

## LABORATORY RESPONSE TO UNSUITABLE SAMPLES

- When testing requests, sample labeling, or other associated information is unclear, the laboratory will contact the client for clarification.
- The laboratory retains the right to reject, or request re-collection and re-submission of, any sample believed to be unsuitable for testing.
- The laboratory will provide report comments regarding any samples with questionable suitability.

## LABORATORY RESPONSIBILITY & SAMPLER'S / CLIENT'S RESPONSIBILITY

- The laboratory does not provide sampling services for its clients.
- All samples are tested as received, and all laboratory analysis results relate only to the portion tested.
- It is the sampler's responsibility to provide a sample that is representative of the material being investigated.
- **IT IS THE CLIENT'S RESPONSIBILITY TO VERIFY THAT THE LABORATORY HOLDS THE CERTIFICATIONS OR APPROVALS REQUIRED BY THE DATA USER PRIOR TO THE SUBMISSION OF SAMPLES.**



**SCHNEIDER LABORATORIES  
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# Appendix

# F

# Conversions, Calculations and Concentrations

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## Volume (metric and U.S. liquid measures)

Units	cm <sup>3</sup>	liter	m <sup>3</sup>	in. <sup>3</sup>	ft. <sup>3</sup>	yd. <sup>3</sup>	fl oz.	fl pt.	fl qt.	gal.	bbl. (oil)	bbl. (liq.)
cm <sup>3</sup>	1	0.001	1 x 10 <sup>-6</sup>	0.06102	3.53 x 10 <sup>-5</sup>	1.31 x 10 <sup>-6</sup>	0.03381	0.00211	0.00106	2.64 x 10 <sup>-4</sup>	6.29 x 10 <sup>-6</sup>	8.39 x 10 <sup>-6</sup>
liter	1000	1	0.001	61.02	0.03532	0.00131	33.81	2.113	1.057	0.2642	0.00629	0.00839
m <sup>3</sup>	1 x 10 <sup>6</sup>	1000	1	6.10 x 10 <sup>4</sup>	35.31	1.308	3.38 x 10 <sup>4</sup>	2113	1057	264.2	6.290	8.386
in. <sup>3</sup>	16.39	0.01639	1.64 x 10 <sup>-5</sup>	1	5.79 x 10 <sup>-4</sup>	2.14 x 10 <sup>-5</sup>	0.5541	0.03463	0.01732	0.00433	1.03 x 10 <sup>-4</sup>	1.37 x 10 <sup>-4</sup>
ft. <sup>3</sup>	2.83 x 10 <sup>4</sup>	28.32	0.02832	1728	1	0.03704	957.5	59.84	29.92	7.481	0.1781	0.2375
yd. <sup>3</sup>	7.65 x 10 <sup>5</sup>	764.5	0.7646	4.67 x 10 <sup>4</sup>	27	1	2.59 x 10 <sup>4</sup>	1616	807.9	202.0	4.809	6.412
fl oz.	29.57	0.02957	2.96 x 10 <sup>-5</sup>	1.805	0.00104	3.87 x 10 <sup>-5</sup>	1	0.06250	0.03125	0.00781	1.86 x 10 <sup>-4</sup>	2.48 x 10 <sup>-4</sup>
fl pt.	473.2	0.4732	4.73 x 10 <sup>-4</sup>	28.88	0.01671	6.19 x 10 <sup>-4</sup>	16	1	0.5000	0.1250	0.00298	0.00397
fl qt.	946.4	0.9463	9.46 x 10 <sup>-4</sup>	57.75	0.03342	0.00124	32	2	1	0.2500	0.00595	0.00794
gal.	3785	3.785	0.00379	231.0	0.1337	0.00495	128	8	4	1	0.02381	0.03175
bbl. (oil)	1.59 x 10 <sup>5</sup>	159.0	0.1590	9702	5.615	0.2079	5376	336	168	42	1	1.333
bbl. (liq)	1.19 x 10 <sup>5</sup>	119.2	0.1192	7276	4.211	0.1560	4032	252	126	31.5	0.7500	1

## Mass

Units	g	kg	oz.	lb.	metric ton	ton
g	1	10 <sup>-3</sup>	0.03527396	2.204623 x 10 <sup>-3</sup>	10 <sup>-6</sup>	1.102311 x 10 <sup>-6</sup>
kg	1000	1	35.27396	2.204623	10 <sup>-3</sup>	1.102311 x 10 <sup>-3</sup>
oz. (avdp)	28.34952	0.02834952	1	0.0625	2.834952 x 10 <sup>-5</sup>	3.125 x 10 <sup>-5</sup>
lb. (avdp)	453.5924	0.4535924	16	1	4.535924 x 10 <sup>-4</sup>	0.0005
metric ton	10 <sup>6</sup>	1000	35273.96	2204.623	1	1.102311
ton	907184.7	907.1847	32000	2000	0.9071847	1

## Length

Units	cm	m	km	in.	ft.	mile
cm	1	0.01	1 x 10 <sup>-5</sup>	0.3937	0.03281	6.214 x 10 <sup>-6</sup>
m	100	1	0.001	39.37	3.281	6.214 x 10 <sup>-4</sup>
km	1 x 10 <sup>5</sup>	1000	1	3.94 x 10 <sup>4</sup>	3281	0.6214
in.	2.540	0.02540	2.540 x 10 <sup>-5</sup>	1	0.08333	1.578 x 10 <sup>-5</sup>
ft.	30.48	0.3048	3.048 x 10 <sup>-4</sup>	12	1	1.894 x 10 <sup>-4</sup>
mile	1.609 x 10 <sup>5</sup>	1609	1.609	6.336 x 10 <sup>4</sup>	5280	1

## Area

Units	cm <sup>2</sup>	m <sup>2</sup>	km <sup>2</sup>	in. <sup>2</sup>	ft. <sup>2</sup>	mile <sup>2</sup>
cm <sup>2</sup>	1	1 x 10 <sup>-4</sup>	1 x 10 <sup>-10</sup>	0.1550	1.076 x 10 <sup>-3</sup>	3.861 x 10 <sup>-11</sup>
m <sup>2</sup>	1 x 10 <sup>4</sup>	1	1 x 10 <sup>-6</sup>	1550	10.76	3.861 x 10 <sup>-7</sup>
km <sup>2</sup>	1 x 10 <sup>10</sup>	1 x 10 <sup>6</sup>	1	1.55 x 10 <sup>9</sup>	1.076 x 10 <sup>7</sup>	0.3861
in. <sup>2</sup>	6.452	6.452 x 10 <sup>-4</sup>	6.405 x 10 <sup>-10</sup>	1	6.944 x 10 <sup>-3</sup>	2.491 x 10 <sup>-10</sup>
ft. <sup>2</sup>	929.0	9.290 x 10 <sup>-8</sup>	144	1		
mile <sup>2</sup>						

## CONVERSIONS

1000 ng (nanograms)	=	1.0 ug (microgram)
1000 ug (micrograms)	=	1.0 mg (milligram)
1000 mg (milligrams)	=	1.0 g (gram)
1000 g (grams)	=	1.0 Kg (kilogram)
1000 uL (microliters)	=	1.0 mL (milliliter)
1000 mL (milliliters)	=	1.0 L (liter)
1000 L (liters)	=	1.0 M <sup>3</sup> (cubic meter)
1.0 mL (milliliter)	=	1.0 cc (cubic centimeter)

Some samples of these conversions are:

7465 ng = 7.465 ug	7.465 ug = 0.007465 mg
0.339 mg = 339 ug	0.7891 Kg = 789.1 g
244.7 mL = 0.2447 L	1.349 M <sup>3</sup> = 1349 L
1428.7 L = 1.4287 M <sup>3</sup>	546 cc = 546 mL

## CALCULATING AIR VOLUMES

Calculating accurate air volumes (exact amounts of air drawn through air sampling media) is imperative in reaching meaningful results. The air volume is simply the product of two terms, flowrate and sampling time:

$$\text{Air Volume} = \text{Flowrate} \times \text{Sampling Time}$$

The flowrate is usually expressed in liters/minute or in milliliters/minute (mL/minute is the same as cc/minute). The sampling time needs to be expressed in minutes, and therefore the product of these two terms, the air volume, will be either liters or milliliters.

Some samples of calculating air volumes are:

11.7 L/ min.	x	240 minutes	=	2808 L
20 mL/min.	x	462 minutes	=	9240 mL (= 9.240 L)
540 cc/min.	x	366 minutes	=	197640 cc (= 197.640 L)
3.4 L/min.	x	480 minutes	=	1632 L (= 1.632 M <sup>3</sup> )

## CONCENTRATIONS: AN IMPORTANT CONCEPT

Concentration is an important concept in expressing analytical results in environmental and industrial hygiene testing. A concentration is so much of something per something else. When dealing with concentrations, the word per is used to separate two quantities, such as in "parts per million" and mg/M<sup>3</sup>. The most commonly used concentrations are:

mg/Kg	(milligrams per kilogram)
mg/M <sup>3</sup>	(milligrams per cubic meter)
PPM	(parts per million)
fibers/cc	(fibers per cubic centimeter of air)
mg/L	(milligrams per liter)

Note that there are basically two types of concentrations, weight per weight and weight per volume. Weight per weight concentrations (mg/Kg) are used to express contaminant levels of solids, such as the level of lead in paint chips. Weight per volume concentrations (mg/M<sup>3</sup> and mg/L) are used to express contaminant levels of both air and liquids. The amount of benzene vapor in air and the amount of iron in water (most likely expressed as mg/M<sup>3</sup> and mg/L, respectively) would both be weight per volume concentrations.

Obviously, concentrations are necessary to make sense out of analytical results. Knowing only the total weight of metal found on a filter is useless without knowing the exact amount of air in which that amount of metal was contained.

**WHEN SENDING SAMPLES TO SCHNEIDER LABORATORIES GLOBAL, INC. PLEASE INCLUDE THE AIR VOLUMES IF THEY ARE AIR SAMPLES. THE CONCENTRATION CANNOT BE CALCULATED WITHOUT THE AIR VOLUME.**

The concentration can always be determined if the amount of contaminant and the volume of air drawn through the sampler are known. Start with the weight amount of contaminant found on the entire sample, then divide by the air volume to arrive at the concentration, for example:

A charcoal tube is sent to the lab for benzene analysis, but the volume of air, 24.17 L, was not included. The lab produces a result of 0.03 mg benzene. To compare these results to a PEL or TLV, the concentration is needed.

$$\frac{0.03 \text{ mg benzene}}{0.02417 \text{ M}^3 \text{ air}} = 1.24 \text{ mg/M}^3 \text{ benzene}$$

Notice that liters were converted to cubic meters so that the result may be expressed as mg/M<sup>3</sup>, not mg/L.

For fiber counting, as in asbestos analysis, the application is similar. The concentration is now number of fibers per volume of air.

A 1243.7 L air sample is sent to the lab, but the air volume is not included. A result of 7847 fibers/filter was reported. Knowing the total number of fibers on the entire filter and the air volume, the concentration of fibers in air can easily be calculated:

$$\frac{7847 \text{ fibers}}{1,243,000 \text{ cc air}} = 0.0063 \text{ fibers/cc}$$

Notice the conversion from liters to cubic centimeters, so that the results are in fibers/cc not in fibers/L.

Remember, when working with concentrations, both the weight value and the volume value can be changed into the preferred units before the division is done. For example, a result of

517.3 mg/L chlordane in water

can be correctly expressed as any of the following, without changing the result:

517300 ug/L            517.3 ug/mL

One last word about concentrations: Parts per million, or PPM, is frequently used to express concentrations such as volume per volume of air, volume per volume of liquid (usually water - aqueous solutions), and weight per weight. For example, in testing a solid for lead we found that it contained 34 ug of lead per gram of solid, we could say that the solid contained 34 PPM lead, since there are a million micrograms in one gram.

Applying PPM values to lead contamination in water is not difficult if we remember one very important premise in chemistry. One milliliter (1.0 mL) of water weighs exactly one gram (1.0g). Knowing this, it is easy to understand that if water contains 69 ug of lead per mL, then that water is 69 PPM lead. This is because 69 ug/mL is the equivalent of saying 69 ug/g (remember, 1.0 mL of water weighs 1.0 g). So, 69 ug of lead per gram of water means, by definition, 69 PPM.

Lastly, PPM can refer to volume of contaminant per volume of air. In this case the contaminant is usually an organic vapor. This type of PPM application is the most difficult to understand. It is based on the following two chemical principles:

- 1) A chemical's molecular weight is the number of grams of that chemical found in one mole of that chemical.
- 2) At 25° C temperature and 1 atmosphere pressure, one mole of any chemical (in a vapor state if it is normally a liquid) or gas occupies exactly the same amount of air space, 24.45 liters. Volume per air volume results of solvent vapors and gases in PPM, can be expressed by using the following:

$$\frac{\text{mg contaminant}}{\text{M}^3 \text{ air}} \quad \times \quad \frac{24.45 \text{ L/mole}}{\text{m.w. as g/mole}} \quad = \quad \text{PPM contaminant in air}$$

Always remember, when using PPM, volume or weight per volume must always be expressed - never use "mixed" values such as weight per volume.

Sometimes it is useful to convert results expressed in PPM to results expressed as a percentage (or vice versa), as shown below:

$$\text{parts per million} = (\text{percent}) \times (0.0001)$$

$$\text{Percent} = \frac{\text{parts per million}}{0.0001}$$

## TIME-WEIGHTED AVERAGES

Time weighted averages are expressions on concentrations that have been “time weighted” for the purpose of comparison with 8-hour contaminant concentrations. In other words, if a sample result (always as a concentration) is multiplied by a factor that would make the resultant concentration represented the contaminant level if the sampling time had been exactly eight hours, instead of more or less than eight hours. If sampled for exactly 8 hours, the sample result (concentration) is already, by definition, an 8-hour TWA.

If the sampling is less than eight hours, then the sample concentration is multiplied by a factor that is less than 1. This would take the concentration of contaminant to which the employee was exposed and “spread it out” to represent what the concentration would have been if the exposure was 8 hours. The weight of the contaminant would be unchanged. If sampling is more than 8 hours (for instance a worker who works 4 10-hour days), the sample concentration would be multiplied by a factor that is greater than 1; this would take the concentration of contaminant to which the employee was exposed and “squeeze it into an 8-hour time frame” to represent what the concentration would have been if the exposure was 8 hours, but the weight of the contaminant would be unchanged.

TWA's are expressed as either PPM or mg/M<sup>3</sup> values. Hygienists need to calculate TWA's for all their sample results because the OSHA PEL's and the ACGIH TLV's are all expressed as either PPM TWA's or as mg/M<sup>3</sup> TWA's. In order to compare results to the standards, both values need to be time weighted averages. The following calculations are used to arrive at 8-hour TWA's.

$$\frac{\text{mg}}{\text{M}^3} \times \frac{\text{minutes sampled}}{480 \text{ minutes}} = \frac{\text{mg}}{\text{M}^3} \text{ TWA}$$

$$\text{PPM} \times \frac{\text{minutes sampled}}{480 \text{ minutes}} = \text{PPM TWA}$$

While sampling a painter for mineral spirits, the pump ran for 6 hours and 15 minutes while he was painting, and he spent the remainder of his shift unexposed to solvent vapors. The lab reports a result of 0.344 mg/M<sup>3</sup> mineral spirits for the charcoal tube. The following converts this concentration to an 8-hour TWA.

$$0.344 \text{ mg/M}^3 \times \frac{375 \text{ minutes}}{480 \text{ minutes}} = 0.269 \text{ mg/M}^3 \text{ TWA}$$

Remember, the painter was sampled for less than 8 hours, so the factor multiplied by the concentration is less than 1.

A lab report for formaldehyde states that the exposure was 0.85 PPM. This sample was taken on an employee working a 12-hour shift, but was sampled for 11 hours and 15 minutes because he took a break. An 8-hour TWA is calculated in order to compare his exposure to the standard.

$$0.85 \text{ PPM} \quad \times \quad \frac{675 \text{ minutes}}{480 \text{ minutes}} \quad = \quad 1.20 \text{ PPM TWA}$$

Since sampling was more than 8 hours, a factor greater than 1 is multiplied raising the concentration to represent what the concentration would have been during an 8-hour period had the weight of formaldehyde found remained the same.



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# Appendix

# G

# Free Pump & Cyclone Loan Program

## 3 Easy Steps

1. Establish an SLGi Account: Download, print and complete the Client Information Form and fax the completed form to 804-359-1475.
  - a. Our standard credit terms are Net 30 for approved credit accounts, and a standby credit card authorization is needed on file.
  - b. First orders for new clients require a credit card or check payment. This allows us to process your lab work immediately, while we process your credit application.
2. Upon receipt of your SLGi Account Number, please complete the Free Pump & Cyclone Loan Program Request Form and fax to 804-359-1475.
3. Please read, sign and fax the Pump & Cyclone Loan Agreement Form to 804-359-1475.

## That's IT! Your request is now being processed

When all documents have been completed signed and faxed, our Pump Loan Department will verify your order before we ship it so you can be assured that you get what you need when you need it.

The Client is responsible for all shipping charges pertaining to this program from SLGi to the Client and from the Client to SLGi. The Client agrees to send back all sampling pumps, chargers and accessories by insured courier (Federal Express, UPS, etc.) with a two-day delivery service or sooner. SLGi will ship the order to the Client by ground service unless otherwise requested by the Client. SLGi will invoice the Client for shipping charges. The Client is responsible for all taxes, duties and fees associated with this program.

**Pumps Available for Loan:**



BDX II Air Sampler 0.5-3.0 LPM



Gast 1532 High Volume Pump 2-35 LPM



Gast 1531 High Volume Pump 2-35 LPM



GilAir-5 Constant Flow Pump 1-5 LPM

**Equipment Available for Rental:**



Drycal Defender 510-M /  
*Primary Calibrator Call for  
pricing*

***Supplies***



- 25mm Cassetts
- 37mm Cassetts
- Centrifuge Tubes
- Latex Gloves
- 3x5 Asbestos/Soil Bags
- 4x6 Asbestos/Soil Bags
- 12x12 Sample Bags
- \* See Pump Loan Request Form*



## SCHNEIDER LABORATORIES GLOBAL, INCORPORATED

2512 W. Cary Street, Richmond, VA 23220-5117  
804-353-6778 Toll Free - 800-785-LABS (5227) FAX - 804-359-1475  
www.slabinc.com info@slabinc.com



### Schneider Laboratories Global Pump Loan Program

a.) When Client places an order, Schneider Laboratories Global, Inc. expects to receive the equipment and accessories back from Client within no more than a week's time. This date is to be noted on the Supply Request Form under "Expected Return Date". Schneider Laboratories Global, Inc. will list this date on the packing list that is sent with the equipment to Client. Schneider Laboratories Global, Inc. will provide Client with sampling pumps and chargers in good working condition along with, if applicable, media and accessories all at no cost (except for shipping charges, insurance, duties, tariffs, customs fees, etc.) to Client. In return, the client has to submit \$150 worth of work. Client will confirm receipt of all requested items and will contact Schneider Laboratories Global, Inc. immediately upon receipt if any items are missing or damaged. Client is responsible for decontaminating all sampling pumps and accessories after use and for returning the sampling pumps, chargers and accessories and any unused media in good working condition (according to SLGi's provided protocol) by the Expected Return Date unless the Client obtains Schneider Laboratories Global, Inc.'s written permission (an e-mail notification from Schneider Laboratories Global, Inc. is acceptable) to extend the term of use.

**Client acknowledges that Client is responsible for any damage to any sampling pumps, chargers and accessories and that Client will compensate Schneider Laboratories Global, Inc. for any damages. Schneider Laboratories Global recommends that all returned items be shipped with tracking numbers and insured. The client is responsible for all equipment until it arrives at SLGi.**

b.) Client understands and agrees that these sampling pumps, accessories and media are provided at no charge (except for shipping charges, duties, tariffs, customs fees, etc.) to Client provided that all samples taken utilizing the sampling pumps are sent to Schneider Laboratories Global, Inc. for analysis and are analyzed by Schneider Laboratories Global, Inc. at Schneider Laboratories Global, Inc.'s standard published fee schedule or agreed pricing. (SLGi's website [www.slabinc.com](http://www.slabinc.com) lists Schneider Laboratories Global, Inc.'s standard published fee schedule.) The amount of the analysis sent in should be \$150 minimum.

c.) Schneider Laboratories Global, Inc. guarantees that all pumps shipped are fully charged and ready for service. Client understands and agrees to recharge all pumps before use if sampling is not done within two (2) days from the date shipped by Schneider Laboratories Global, Inc.

d.) If Client fails to return any or all sampling pumps, charges and accessories to Schneider Laboratories Global, Inc. by the Expected Return Date, Client understands and agrees that Client will be considered to have rented these pumps, chargers and accessories. For situations where Schneider Laboratories Global, Inc. has not received any samples from Client from the use of these sampling pumps by the Expected Return Date, the rental term includes the timeframe beginning with the date that sampling pumps were shipped to Client from Schneider Laboratories Global, Inc. and ending on the date when the sampling pumps, chargers and accessories are returned to Schneider Laboratories Global, Inc. from Client. The rental fee charges by Schneider Laboratories Global, Inc. to Client will be \$35 a day.



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If sampling pumps, chargers and accessories are not returned by Client within fifteen (15) days from the Expected Return Date, Client acknowledges that Client has purchased these sampling pumps and any other accessories and authorizes SLGi to charge the client's credit card. Client agrees to be charged by SLGi for the replacement value for each piece of equipment listed on the equipment package insert sent to Client on initial shipment.

e.) Client acknowledges that Client is responsible for all shipping charges pertaining to this program both from SLGi to Client and from Client to SLGi. Client agrees to send back all sampling pumps, chargers and accessories by insured two-day courier service (Federal Express, UPS, etc.) or sooner. SLGi will ship sampling pumps, chargers, etc. to Client by ground unless otherwise requested by Client.

f.) Client is responsible for all taxes, duties and fees associated with this program.

g.) Client acknowledges that Client's only correction from SLGi relating to this program would be the reimbursement of any shipping paid proportionately (if one pump failed to perform out of 5 pumps shipped, Client would be entitled to reimbursement for 20% of shipping cost) in situations where sampling pumps were not able to perform as provided. Client at its option may order replacement of the non-performing equipment at no charge to Client including shipping.

### TERMS of Agreement

a.) This Agreement is governed by the laws of the State of Virginia.

b.) Client acknowledges and agrees to reimburse SLGi for any SLGi attorney and court costs relating to enforcing this Agreement if it is established that SLGi is the prevailing party.

c.) This Agreement is the Sole Agreement between the parties and supersedes any previous agreement signed between the parties.

d.) The Client Representative, indicated below, has appropriate authority to sign this Agreement on behalf of the Client.

e.) The Client has set forth his/her initials in the box next to the Pump Loan Program Client understands and agrees to be bound by the terms and conditions of this program that Client has initialed herein.

f.) Schneider Laboratories Global, Inc. may terminate Client's participation in any or all of the Schneider Laboratories Global, Inc. programs set forth herein, at Schneider Laboratories Global, Inc.'s sole option, by providing written notice to that effect to Client. Client may terminate this agreement and its participation in any of the programs set forth herein at any time by providing written notice to Schneider Laboratories Global, Inc., provided that all equipment, sampling pumps, chargers, accessories, sampling badges and all other Schneider Laboratories Global, Inc. property have been returned to Schneider Laboratories Global, Inc. and provided that Client has paid Schneider Laboratories Global, Inc. in full for all services rendered by Schneider Laboratories Global, Inc.



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g.) Client acknowledges that the General Terms set forth herein apply to Client and Schneider Laboratories Global, Inc. provided that Client participates in Schneider Laboratories Global, Inc. Pump Loan Program contained herein as evidenced by Client’s initials next to the program title or titles.

h.) Client acknowledges that Schneider Laboratories Global, Inc.’s standard payment terms for services rendered are net 30 days. Client agrees to pay Schneider Laboratories Global, Inc. within 30 days unless other terms have been arranged.

**AGREED AND ACCEPTED BY:**

Client Name: \_\_\_\_\_

Schneider Laboratories Global, Inc. \_\_\_\_\_

Client Representative’s Signature: \_\_\_\_\_

Representative’s Signature \_\_\_\_\_

Client Rep’s Printed Name and Title: \_\_\_\_\_

SLGi. Rep’s Printed Name and Title \_\_\_\_\_

Dated \_\_\_\_\_

Dated \_\_\_\_\_

Schneider Laboratories Global, Inc. Client Services 800-785-5227  
Schneider Laboratories Global, Inc. Fax Number 804-359-1475



# SCHNEIDER LABORATORIES GLOBAL INCORPORATED

**Mailing & Shipping:** 2512 W. Cary Street, Richmond, VA 23220-5117  
**Remit to:** P O Box 35702, Richmond, VA 23235  
 804-353-6778 Toll Free - 800-785-LABS FAX - 804-359-1475  
[www.slabinc.com](http://www.slabinc.com) [info@slabinc.com](mailto:info@slabinc.com)  
**Best Service, Best Quality, Best Price – Guaranteed!**  
*Woman Business Enterprise*  
**Excellence in Service and Technology Since 1987**

## Pump Loan Request Form

Complete the form below. **Print, sign, then fax (804-359-1475)**

After we receive your signed Pump Loan Request, Client Services will submit all your faxed information to our Project Manager Team. For new customers, the PMT will contact you and begin processing your requests. Once you have an established SLGi Account #, Client Services will automatically process your requests.

**QUESTIONS?** Contact our Project Management Team, 800-785-5227

**Requested by:**

Account Number: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Requester's Name: \_\_\_\_\_ Phone#: \_\_\_\_\_  
 Requester's Email: \_\_\_\_\_ Fax#: \_\_\_\_\_  
 Requester's Signature: \_\_\_\_\_

**Ship To:**

Company/Site Name: \_\_\_\_\_  
 Ship Attention: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Date Needed: \_\_\_\_\_ Expected Return Date: \_\_\_\_\_

Qty	Pumps
	<b>BDX II Air Sampler</b> 0.5-3.0 LPM
	<b>GilAir-5 Constant Flow Pump</b> 1-5LPM
	<b>Gast 1532 High Vol. Pump</b> 2LPM-35Lpm
	<b>Gast 1531 High Vol. Pump</b> 2LPM-35Lpm

Qty	Supply Items
	Cassettes - 25mm Asbestos
	Cassettes - 37mm Metals
	Cassettes - 37mm PW (2 pc)
	Cassettes - 37mm PW (3 pc)

Qty	Supply Items
	Asbestos/Soil Bag - 3 x 5
	Asbestos/Soil Bag - 4 x 6
	Sample Bag - 12 x 12
	Gloves, Latex - 100 count box
	Centrifuge Tubes
	COC – Asbestos/Metals
	COC – General IH

Qty	Rental Items
	Drycal DEFENDER 510-M Primary Calibrator//call for pricing

Qty	Additional Items

Qty	Additional Items



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# Appendix

## H



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## **Research & Development** (Method Development)

**available upon request, please call for pricing**

