

When measuring concentrations of specific compounds, nothing quite beats the colorimetric tube for simplicity, flexibility and specificity. Beyond that, Uniphos offers detectorstrips, smoke tubes, dissolved ion tubes, carbon tubes and dosimetertubes.

#### Uniphos precision air sampling pump

The Uniphos air sampling pump is a one stroke pump with built-in tip breaker and shard reservoir. This ensures safe and clean working and guarantees a reliable analysis.



#### Features

- ◇ One-stroke handpump
- ◇ Light, rugged and handy
- ◇ Reproduceable stroke
- ◇ Low maintenance
- ◇ 50 or 100cc pump volume
- ◇ 5 year warranty

#### Available for i.a.:

NH<sub>3</sub>, H<sub>2</sub>S, SO<sub>2</sub>, Cl<sub>2</sub>, PH<sub>3</sub>, HCl, HCN, CO, CO<sub>2</sub>, O<sub>2</sub>, C<sub>6</sub>H<sub>6</sub>, alcohols, amines, mercaptans and many other gases and vapours

#### Available also:

- ◇ Gasdetectionstrips
- ◇ Carbon tubes
- ◇ Dissolved ion detectortubes
- ◇ Smoke tubes

The pump has only 5 moving parts to ensure accuracy and low maintenance cost. Leaks are virtually impossible, so the sampling volume is taken with great precision. Any leaks are quickly determined with the built-in leak test. You get a 5 year warranty with the pump.

Uniphos offers tubes for most compounds, often in multiple measurement ranges. These tubes also offer great value for money as the price is unrivalled by our competitors.

Most tubes have a shelf life of up to 2 years. Measurements are often possible at temperatures as low as 0° C.

#### Exchanging tubes and sampling pump

Results of research by independent institutes suggest that exchanging tubes and pumps cause no significant accuracy problems within the industrial standards. Uniphos tubes and pumps are compatible with RAE Systems LP-1200 / Sensidyne™ / Gastec™ GV/100, 800 and Kitagawa™ 8014-400A pumps. The tubes of these manufacturers are compatible with the Uniphos sampling pump as well.

### Uniphos Smoke Tubes

Smoke tubes are sealed glass tubes filled with a pungent gas producing chemical compound loaded on an inert support material. After cutting both the ends of the tube and passing air by using a specified pump or squeezing a rubber bulb attached to one end of the tube.



Uniphos Smoke Generation Tubes are used for tracking low

velocity air movements. They are an ideal tool for respiratory fit testing specified by OSHA, for checking air flow direction in mines, testing the performance of fume hoods, exhaust discharge, dryers, stacks etc.

### Uniphos Dissolved Ion Detector Tubes

Uniphos Dissolved Ion Detector Tubes provide a rapid, fully quantitative analysis of the concentration of sulfide and chloride ions in water.

Using a pump is not necessary as the inherent capillary action of water through the support material allows the sample to be led over the reactive.



Gas	Range (ppm)
Sulfide ion	0.5 - 20
	2 - 300
	1 - 100
Chloride ion	5 - 200
	10 - 2000

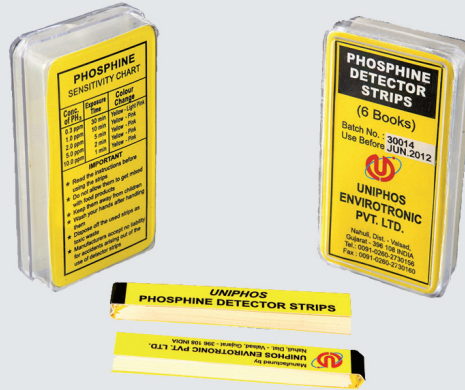
### Uniphos dosimeter buisjes

Gas	Range (ppm)
Phosphine	$(1-200) \times 10^3$
	$(1-200) \times 10^2$
Ammonia	25 - 500
Carbon Dioxide	$(5 - 120) \times 10^3$
Oxygen	$(1 - 100) \times 150$

### Uniphos Gas Detector Strips

For a simple and cost effective detection of gases at their TLV, Uniphos

developed these gas detector strips. It's just a little paper strip, impregnated with sensing chemicals to detect gases like phosphine, hydrogen cyanide, hydrogen sulfide etc.



Gas	Range (ppm)
Phosphine	0.3 - 10
Hydrogen sulfide	1 - 20
Hydrogen cyanide	1 - 20
Mercaptan	0.5 - 10
Arsine	0.05 - 3

### Uniphos Charcoal Tubes

These sealed glass tubes are filled with two columns of accurately weighed, high purity coconut shell charcoal. Non polar solvent vapors and gases running through the tube are adsorbed.

The tubes fit into a variety of holders and can be used along with a number of specified air sampling pumps and flow meters.

Thus, charcoal tubes are an industry standard of measuring exposure to organic vapors and aerosols. Using Uniphos charcoal tubes provide for a NIOSH approved method for air sampling.



Type	Size (mm) (Outer diameter x length)	Sorbent weight A/B (mg)
Standard	6 x 70	50/100
Large	8 x 110	200/400
Jumbo	10 x 110	200/800
Open end - Standaard	6 x 70	50/100
Open end - Large	8 x 110	200/400
Open end - Jumbo	10 x 110	200/800



Detector tube name	Tube Code No.	Gas or vapour to be measured	Measuring range (ppm)	No. Of Pump Strokes	Shelf Life (year)	Note	TLV – TWA, C (ACGIH) (ppm)
Acetaldehyde	SAT – 4M	Acetaldehyde	10 – 300	2	1		C25
Acetic Acid	SAA – 2	Acetic Acid	2.5 – 50	1	1		10
		Maleic Anhydride	1 – 20	1			0.1
Acetone	SAC – 5	Acetone	50 – 4000	2	1		500
Acetylene	SAL – 5	Acetylene	100 – 5000	1	1		--
Acid Gases	SAG – 2	Acetic Acid	1 – 20	4	1		10
			<b>2 – 40</b>	<b>2</b>			
			4 – 80	1			
		Chlorine	1.2 – 24	2			0.5
		Hydrogen Chloride	11.6 – 232	2			C 2
		Iodine	1.8 – 36	2			0.01
		Nitric Acid	13.2 – 264	2			2
		Nitrogen Dioxide	3.8 – 76	2			3
Sulphur Dioxide	0.6 – 12	2	0.5				
Acrolein	SAE – 4	Acrolein	10 – 800	2	1		
Acrylonitrile	SAN – 4L	Acrylonitrile	5 – 120	2	1	5	2
Alcohol	SET – 7	Ethanol ( <i>Alcohol</i> )	0.05 – 5%	2	2		1000
Amines	SMA – 3	Ammonia	4.45 – 89	1	1		25
		n-Butyl Amine	5 – 100	1			C 5
		Ethanol Amine	18.5 – 370	1			
		Ethyl Amine	4.25 – 85	1			
		Methyl Amine	<b>5 – 100</b>	<b>1</b>			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 – 133	1			10
Ammonia	SAM – 2	Ammonia	1.25 – 25	2	2		25
			<b>2.5 – 50</b>	<b>1</b>			
			5 – 100	½			
	SAM – 3	Ammonia	2.5 – 50	2	2		
			<b>5 – 100</b>	<b>1</b>			
			10 – 200	½			
	SAM – 4M	Ammonia	5 – 150	2	2		
			<b>10 – 300</b>	<b>1</b>			
			20 – 600	½			
	SAM – 4	Ammonia	25 – 500	2	2		
			<b>50 – 1000</b>	<b>1</b>			
			100 – 2000	½			
	SAM – 5	Ammonia	125 – 2500	2	2		
			<b>250 – 5000</b>	<b>1</b>			
		500 – 10.000	½				
SAM – 8M	Ammonia	0.25 – 5%	2	2			
		<b>0.5 – 10%</b>	<b>1</b>				
		1 – 20%	½				
SAM – 9	Ammonia	0.5 – 15%	2				

	SAM – 9	Ammonia	1 – 30%	1	2		
			2 – 60%	½			
Aniline	SAI – 2	Aniline	2 – 30	1	1		2
Arsine	SAR – 2	Arsine	0.5 – 15	2	2		0.005
			1 – 30	1			
			2 – 60	½			
Aviation Oil (Oil Mist)	SAO – 4	Aviation Oil (Oil Mist)	0.1 – 5 mg/l	1	1		0.2 mg/l
Benzene	SBE – 2L	Benzene	0.25 – 12	5	2	5	0.5
			1.25 – 25	4			
	SBE – 2	Benzene	2.5 – 50	2	2		
			5 – 100	1			
	SBE – 3	Benzene	2.5 – 50	2	2		
			5 – 100	1			
			10 – 200	½			
Bromine	SBR – 2M	Bromine	1 – 20	2	2		0.1
	SBR – 3	Bromine	5 – 100	1	2		
1,3 Butadiene	SBU – 2M	Butadiene	1 – 20	1	1	5	2
	SBU – 3	Butadiene	5 – 100	1	1	5	
Butyl Acetate	SBA – 6	Butyl Acetate	0.005 – 1%	1	1		150
Butyl Acrylate	SBC – 3L	ButylAcrylate	5 – 60	3	1		2
n– Butyl Amine	SMA – 3	Ammonia	4.45 – 89	1	1		25
		n–Butyl Amine	5 – 100	1			C 5
		Ethanol Amine	18.5 – 370	1			
		Ethyl Amine	4.25 – 85	1			
		Methyl Amine	5 – 100	1			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 – 133	1		10	
n – Butane	SBT – 5M	n – Butane	50 – 1400	1	1		800
2 – Butanol	SIB – 4L	2 – Butanol	10– 150	2	1		20
			20 – 300	1			
1 – Butanol	SNB – 4L	1 – Butanol	10 – 150	2	1		100
Carbon Dioxide	SCD – 5	Carbon Dioxide	0.015 – 0.25%	4	2		5000
			0.03 – 0.5%	2			
			0.06 – 1.0%	1			
	SCD – 7	Carbon Dioxide	0.125 – 1.5%	2	2		
			0.25 – 3%	1			
			0.5 – 6%	½			
	SCD – 8M	Carbon Dioxide	0.25 – 5%	2	2		
			0.5 – 10%	1			
	SCD – 8	Carbon Dioxide	1 – 20%	½	2		
			0.5 – 10%	2			
1 – 20%			1				
SCD – 10	Carbon Dioxide	2 – 40%	½	2			
		2.5 – 30%	1				
			5 – 60%	½			

Carbon Disulphide	SCS - 2	Carbon Disulphide	1.25 - 20	4	2	5	1	
			<b>2.5 - 50</b>	<b>2</b>				
			5 - 100	½				
	SCS - 3	Carbon Disulphide	2.5 - 50	2	2	5		
			<b>5 - 100</b>	<b>1</b>				
10 - 200	½							
SCS - 5M	Carbon Disulphide	50 - 1600	1	2	5			
Carbon Monoxide in H2	SCH - 3	Carbon Monoxide in H2	5 - 100	3	1			
	SCH - 5	Carbon Monoxide in H2	100 - 3000	1	1			
Carbon Monoxide	SCO - 2	Carbon Monoxide	1 - 30	5	1			
			SCO - 3	Carbon Monoxide	2.5 - 50	4	1	
					<b>5 - 100</b>	<b>2</b>		
	10 - 200	1						
	SCO - 4M	Carbon Monoxide	12.5 - 300	2	2			
			<b>25 - 600</b>	<b>1</b>				
			50 - 1200	½				
	SCO - 4	Carbon Monoxide	25 - 500	2	2			
			<b>50 - 1000</b>	<b>1</b>				
			100 - 2000	½				
	SCO - 5	Carbon Monoxide	50 - 1500	2	1			
			<b>100 - 3000</b>	<b>1</b>				
200 - 6000			½					
SCO - 6M	Carbon Monoxide	0.01 - 0.7%	1	2				
SCO - 7	Carbon Monoxide	0.1 - 5%	1	2				
SCO - 8	Carbon Monoxide	0.5 - 10%	2	1				
		<b>1 - 20%</b>	<b>1</b>					
Carbon Tetrachloride	SCT - 3L	Carbon Tetrachloride	1 - 60	1	1	5	5	
Carbonyl Sulphide	SCU - 3	Carbonyl Sulphide	2.5 - 50	4	2	5	--	
			<b>5 - 100</b>	<b>2</b>				
			10 - 200	½				
Chlorine	SCL - 1M	Chlorine	0.25 - 5	2	2		0.5	
			<b>0.5 - 10</b>	<b>1</b>				
	SCL - 2	Chlorine	1.25 - 25	2	2			
			<b>2.5 - 50</b>	<b>1</b>				
			5 - 100	½				
	SCL - 3	Chlorine	2.5 - 50	2	2			
			<b>5 - 100</b>	<b>1</b>				
			10 - 200	½				
SCL - 4M	Chlorine	25 - 250	2	2				
		<b>50 - 500</b>	<b>1</b>					
		100 - 1000	½					
Chlorine Dioxide	SCI - 1M	Chlorine Dioxide	0.05 - 2.5	2	1		0.1	
			<b>0.1 - 5</b>	<b>1</b>				
	0.2 - 10	½						
SCI - 5	Chlorine Dioxide	100 - 4000	1	2				
Chlorobenzene	SCB - 4L	Chlorobenzene	10 - 200	2	2		10	
Chloroform	SCF - 3	Chloroform	10 - 100	5	1		10	
Chloropicrin	SCP - 2M	Chloropicrin	0.013 - 2.1	5	1	5	0.1	
			<b>0.04 - 6.4</b>	<b>2</b>				

Chloropicrin	SCP – 2M	Chloropicrin	0.1 – 16	1	1	5	0.1
Cyclohexane	SCY – 5L	Cyclohexane	10 – 1200	1	1		100
	SCY – 6L	Cyclohexane	0.025 – 0.6%	1	2		
Cyclohexanone	SCN – 3	Cyclohexanone	2 – 100	3	1		20
Cyclohexylamine	SCA – 2	Cyclohexylamine	0.5 – 30	2	1		10
O – Cresol	SCR – 2M	O – Cresol	1 – 25	2	1		5
1,2 Dichlorobenzene	SDB – 4M	1,2 Dichlorobenzene	10 – 300	2	1		25
1,2 Dichloroethane	SDC – 2	1,2 Dichloroethane	5 – 50	2	1	5	10
1,2 Dichloroethylene	SDH – 4M	1,2 Dichloroethylene	20 – 400	1	1	5	200
Diesel	SDL – 4	Diesel	0.1 – 5 mg/l	1	2		100 mg/m3
Diethyl Amine	SDA – 2M	Diethyl Amine	2 – 20	2	1		5
Diethyl Ether	SDE – 6	Diethyl Ether	0.04– 1%	1	2		400
		Isopropyl ether	0.013 – 0.34%	3		250	
1,4 Dioxane	SEO – 7	1,4 Dioxane	0,07 – 4%	1	2		
		Ethylene Oxide	0.05 – 3%	1			
Dimethyl Formamide (D.M.F.)	SDF – 2	D.M.F.	2 – 30	2	2	5	10
Dimethyl Sulphide	SDS - 2M	Dimethyl Sulphide	0.5 - 10	1	1		10
Ethanol	SET – 7	Ethanol	0.05 – 5%	2	2		1000
Ethanol Amine	SMA – 3	Ammonia	4.45 – 89	1	1		25
		n-Butyl Amine	5 – 100	1			C 5
		Ethanol Amine	18.5 – 370	1			
		Ethyl Amine	4.25 – 85	1			
		Methyl Amine	<b>5 – 100</b>	<b>1</b>			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 – 133	1			10
Ethyl Acetate	SEA – 7	Ethyl Acetate	0.1 – 5%	1	2		400
Ethyl Benzene	SEB – 4L	Ethyl Benzene	5 – 150	1	2		400
	SEB – 4M	Ethyl Benzene	30 – 400	1	2		
Ethyl Formate	SEF – 4M	Ethyl Formate	20 – 500	1	1		100
Ethylene Glycol	SEG - 2	Ethylene Glycol	10 - 100 mg/m3				
Ethyl Mercaptan	SEM – 2M	Ethyl Mercaptan	0.5 – 10	2	1		0.5
			<b>1 – 20</b>	<b>1</b>			
			2 – 40	½			
	SEM - (3L)	Ethyl Mercaptan in LPG	2 - 80				
	SEM – 4L	Ethyl Mercaptan	2.5 – 60	2	1		
			<b>5 – 120</b>	<b>1</b>			
SEM – 4M	Ethyl Mercaptan	10 – 240	½	1			
		12.5 – 250	2				
Ethylene Dibromide	SED – 2	Ethylene Dibromide	0,5 - 25	2	1	5	0.5
			<b>1 – 50</b>	<b>1</b>			
			2 - 100	½			
Ethylene Oxide	SEO - 1	Ethylene Oxide	0.1 - 10	4	1	5	.
	SEO – 3	Ethylene Oxide	1 – 100	2	2		1

Ethylene Oxide	SEO – 7	Ethylene Oxide	0.05 – 3%	1	2		1	
		1,4 Dioxane	0,07 – 4%	1				
Formaldehyde	SFO – 1M	Formaldehyde	0.1 – 5	5	1		C 0.3	
	SFO – 3	Formaldehyde	5 – 100	2	1			
Formic Acid	SFA – 2M	Formic Acid	1 – 15	3	1		5	
Furan	SFU – 6	Furan	0.01 – 1%	1	1		--	
Furfural	SFL – 2M	Furfural	1 – 16	4	2		2	
Gasoline	SGA – 6L	Gasoline	300 - 6000	1	1		300	
N-Hexane	SHE – 5L	n – Hexane	10 – 1200	1	1		50	
	SHE – 6L	n – Hexane	250 - 6000	1	2			
Hydrazine	SHY – 1L	Hydrazine	0.1 – 2	5	2	H	0.01	
Hydro Carbons (PID tubes for VOC's)	SHE – 5L	n – Hexane	10 – 1200	1	1			
		n – Pentane	7 – 840	1				
		Cyclohexane	14 – 1680	1				
		n – Heptane	15 – 1800	1				
		Octane	23 – 2760	1				
	SHE – 6L	n – Hexane	250 - 6000	1	2			
		n – Pentane	85 - 2040	1				
		Cyclohexane	325 - 7800	1				
		n – Heptane	600 - 14.100	1				
		Octane	950 - 22.800	1				
Hydrogen	SHD – 6M	Hydrogen	500 - 8000	½	1	5	--	
Hydrogen Chloride	SHC – 1	Hydrogen Chloride	1 – 10	3	2		C 2	
	SHC – 2M	Hydrogen Chloride	2 – 20	2	2			5
	SHC – 3	Hydrogen Chloride	5 – 100	1	1			5
	SHC – 4	Hydrogen Chloride	50 – 1000	1	2			
Hydrogen Cyanide	SHN – 2	Hydrogen Cyanide	1.25 - 25	4	2		C 4.7	
			2.5 – 50	2				
			5 - 100	1				
	SHN – 3	Hydrogen Cyanide	2.5 - 50	2	2			
			5 – 100	1				
	SHN – 4	Hydrogen Cyanide	10 - 200	½				
SHN – 4	Hydrogen Cyanide	50 – 1000	1	2				
Hydrogen Fluoride	SHF – 2	Hydrogen Fluoride	0.5 – 30	4	1	H	3	
Hydrogen Sulphide in CNG	SHS – (1H)	Hydrogen Sulphide	0.25 – 3.5	2	1	H		
			0.5 – 7	1				
			1 – 14	½				
Hydrogen Sulphide	SHS – 1H	Hydrogen Sulphide	0.25 – 3.5	2	1	H		
			0.5 – 7	1				
			1 – 14	½				
	SHS – 1	Hydrogen Sulphide	0.5 – 10	5	2			
			0.5 – 15	4				
	SHS – 2	Hydrogen Sulphide	1 – 30	2	2			
2 – 60			1					
SHS – 3L	Hydrogen Sulphide	1.25 – 30	2	2				
		2.5 – 60	1					
SHS – 3	Hydrogen Sulphide	5 – 120	½					
		2.5 – 50	2					
SHS – 3	Hydrogen Sulphide	5 – 100	1	2				

Hydrogen Sulphide	SHS - 3	Hydrogen Sulphide	10 - 200	½	2	10	
	SHS - 4L	Hydrogen Sulphide	5 - 125	2	2		
			10 - 250	1			
	SHS - 4	Hydrogen Sulphide	20 - 500	½	2		
			25 - 400	2			
	SHS - 5M	Hydrogen Sulphide	50 - 1000	2	2		
			100 - 2000	1			
	SHS - 7M	Hydrogen Sulphide	200 - 4000	½	2		
			0.05 - 1%	2			
	SHS - 7	Hydrogen Sulphide	0.1 - 2%	1	2		
			0.2 - 4%	½			
	SHS - 8L	Hydrogen Sulphide	0.25 - 2%	2	2		
			0.5 - 4%	1			
SHS - 8M	Hydrogen Sulphide	0.1 - 3.5%	2	2			
		0.2 - 7%	1				
SHS - 9	Hydrogen Sulphide	0.4 - 14%	½	2			
		0.25 - 5%	2				
SHS - 9	Hydrogen Sulphide	0.5 - 10%	1	2			
		1 - 20%	1				
SHS - 9	Hydrogen Sulphide	1 - 20%	1	2			
		2 - 40%	½				
H2S + SO2	SHS-3L + SSD -1	H2S + SO2	2.5-60 + 0.5-10	1	1	5	H2S:10 SO2: 2
Iodine	SAG - 2	Iodine	1.8 - 36	2	1		
Isopropyl Alcohol	SIP -7M	Isopropyl Alcohol	0.1 - 2.5 %	3	2		400
Isopropyl Amine	SIA - 2	Isopropyl Amine	2.5 - 50	1	1		5
Isopropyl Ether	SDE - 6	Diethyl Ether	0.04 - 1%	1	2		400
		Isopropyl ether	0.013 - 0.34%	3			250
LPG		LPG	100 - 5000				1000
Maleic Anhydride		Maleic Anhydride	1 - 20				0.1
Methanol	SME - 5	Methanol	100 - 5000	1	2		200
	SME - 8L	Methanol	0.05 - 6 %	2	2		
Methyl Ethyl Ketone (M.E.K)	SMK - 6L	M.E.K.	0.02 - 0.6%	2	2		200
Methyl Isobutyl Ketone (M.I.B.K.)	SMI -6L	M.I.B.K.	0.02 - 0.6 %	2	2		50
Mercury Vapour	SHG- 1L	Mercury Vapour	0.1 - 2 mg/m3	1	1		0.025 mg/m3
Methyl Bromide	SMB -2M	Methyl Bromide	0.5 - 1	3	1	5	
			1 - 18	2			
			2 - 36	1			
	SMB -3	Methyl Bromide	5 - 80	½	1	5	
			5 - 50	2			
			10 - 100	1			
			20 - 200	½			1



Methyl Bromide	SMB – 4M	Methyl Bromide	10 - 150	2	1	5	1
			<b>20 – 300</b>	<b>1</b>			
			20 – 600	½			
	SMB -4	Methyl Bromide	25 – 500	2	1	5	
			<b>50 – 1000</b>	<b>1</b>			
			100 – 2000	½			
Methylene Chloride	SMC – 3L	Methylene Chloride	10 - 60	2	1	5	
	SMC – 4	Methylene Chloride	30 - 1000	2	1	5	
	SMC – 4M	Methylene Chloride	50 – 500	1	1	5	
Methyl Amine	SMA – 3	Ammonia	4.45 – 89	1	1		25
		n-Butyl Amine	5 – 100	1			C 5
		Ethanol Amine	18.5 – 370	1			
		Ethyl Amine	4.25 – 85	1			
		Methyl Amine	<b>5 – 100</b>	<b>1</b>			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 – 133	1			10
Methyl Cyclohexane	SMY - 5M	Methyl Cyclohexane	10 - 1600	3	1		
Methyl Iodide	SMO - 7M	Methyl Iodide	500 - 15000	1	1		
Methyl Mercaptan	SMM-2M	Methyl Mercaptan	0.5 – 10	2	1		
			<b>1 – 20</b>	<b>1</b>			
			2 – 40	½			
	SEM - (3L)	Methyl Mercaptan in LPG	2 - 80	1	1		
	SMM – 4L	Methyl Mercaptan	2.5 – 60	2	1		
			<b>5 – 120</b>	<b>1</b>			
			10 – 240	½			
SEM – 4M	Methyl Mercaptan	12.5 – 250	2	1			
		<b>25 – 500</b>	<b>1</b>				
Morpholine	SMA - 3	Morpholine	10 - 200	1	1		
Multigas Detector	SMG-1*	For Inorganic Gases	See manual at <a href="http://www.uniphos.eu">www.uniphos.eu</a>	1	1		
Naphthalene	SHE-5L	Naphthalene	Qualitative	1	1		
	SHE-6L	Naphthalene	Qualitative	1	2		
Nitrogen Dioxide	SND - 2	Nitrogen Dioxide	0.5 – 30	2	1		3
	SND - 4	Nitrogen Dioxide	10 – 1000	1	1		
Nitrogen Oxides	SNO - 2M	Nitrogen Oxides	0.5 – 15	2	1		25
	SNO– 4L	Nitrogen Oxides	20 – 250	1	1		
	SNO–5M	Nitrogen Oxides	100 – 2500	1	1		
Nitric Acid	SNA– 2M	Nitric Acid	1 – 20	1	1	H	2
Oxygen	SOX -9M	Oxygen	3 – 24 %	½	2	5	
Ozone	SOZ - 3	Ozone	5 -100	1	2		0.08
	SOZ– 4M	Ozone	25 - 500	1	2		
Octane	SOC - 5	n-Octane	3 – 23mg/L	1	1		
n - Pentane	SHE – 5L	n – Hexane	<b>10 – 1200</b>	<b>1</b>	1		
		n– Pentane	7 – 840	1			
		Cyclohexane	14 – 1680	1			
		n-Heptane	15 – 1800	1			

n - Pentane	SHE - 5L	Octane	23 - 2760	1			
	SHE - 6L	n - Hexane	250 - 6000	1	2		
		n - Pentane	85 - 2040	1			
		Cyclohexane	325 - 7800	1			
		n - Heptane	600 - 14.100	1			
		Octane	950 - 22.800	1			
Phenol	SPE -2M	Phenol	1 - 25	2	1		5
Phosphine	SPH - 1L	Phosphine	0.05 - 2.5	2	2		0.3
	SPH -1M	Phosphine	0.3 - 5	3	2		
	SPH -1	Phosphine	0.05 - 5	2	2		
			0.1 - 10	1			
	SPH -3	Phosphine	0.2 - 20	½	2		
			2.5 - 50	2			
	SPH -4	Phosphine	5 - 100	1	2		
			10 - 200	½			
	SPH -5	Phosphine	25 - 500	2	2		
			50 - 1000	1			
SPH -6M	Phosphine	100 - 2000	½	2			
		75 - 1500	1				
		150 - 3000	½				
		150 - 4000	1	2			
		300 - 8000	½				
Phosgene	SPG - 1	Phosgene	0.1 - 10	1	1		0.1
Pyridine	SPY - 2M	Pyridine	1 - 14	1	2		
Sulphur Dioxide	SSD -1	Sulphur Dioxide	0.25 - 5	4	1		
			0.5 - 10	2			
			1 - 20	1			
	SSD -2M	Sulphur Dioxide	0,5 - 12,5	4	2		
			1 - 25	2			
	SSD -3	Sulphur Dioxide	2 - 50	1	2		
			2.5 - 50	2			
	SSD -4M	Sulphur Dioxide	5 - 100	1	2		
			10 - 200	½			
	SSD -6M	Sulphur Dioxide	10 - 150	2	2		
			20 - 300	1			
	SSD -5	Sulphur Dioxide	40 - 600	½	2		
			250 - 4000	2			
SSD -7M	Sulphur Dioxide	500 - 8000	1	2			
		1000 - 16.000	½				
SSD -7	Sulphur Dioxide	0,05 - 1,5%	2	2			
		0.1 - 3 %	1				
			0,2 - 6%	½	2		
			0.125 - 2,5%	2			
			0.25 - 5%	1	2		
			0.5 - 10%	½			
Sulphuric Acid	SSA - 1L	Sulphuric Acid	0.5 - 5 mg/m3	5	1		3 mg/ m3
Stoddard Solvent	SSS - 5M	Stoddard Solvent	50 - 8000 mg/m3	1	1		100
Styrene	SST - 4L	Styrene	25 - 250	1	1		20

Tert. Butyl Mercaptan	SBM - 1M	Tert. Butyl Mercaptan	0.5 - 15 mg/m <sup>3</sup>	3	1		
	SBM - 1	Tert. Butyl Mercaptan	0.5 - 30mg/m <sup>3</sup>	2	1		
	SEM - (3L)	Tert. Butyl Mercaptan in LPG	2 - 80	1	1		
	SBM - 4L	Tert. Butyl Mercaptan	2.5 - 60	2	1		
			5 - 120	1			
	SEM - 4M	Tert. Butyl Mercaptan	10 - 240	½	1		
12.5 - 250			2				
		25 - 500	1				
Tetrahydrofuran (THF)	STH - 4	Tetrahydrofuran	50-800	2	1		50
Tetrachloroethylene	STE - 3	Tetrachloroethylene	2.5 - 50	2	1	5	25
			5 - 100	1			
			10 - 200	½			
Trichloroethylene	SCE - 2M	Trichloroethylene	0.5 - 8	4	1	5	50
			1 - 16	2			
			2 - 32	½			
	SCE - 4L	Trichloroethylene	20 - 250	1	1	5	
SCE - 6	Trichloroethylene	0.05 - 1 %	1	1			
Tri Ethyl Amine	SMA - 3	Ammonia	4.45 - 89	1	1		25
		n-Butyl Amine	5 - 100	1			C 5
		Ethanol Amine	18.5 - 370	1			
		Ethyl Amine	4.25 - 85	1			
		Methyl Amine	5 - 100	1			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 - 133	1			10
Tri Methyl Amine	SMA - 3	Ammonia	4.45 - 89	1	1		25
		n-Butyl Amine	5 - 100	1			C 5
		Ethanol Amine	18.5 - 370	1			
		Ethyl Amine	4.25 - 85	1			
		Methyl Amine	5 - 100	1			
		Morpholine	10 - 200	1			
		T - Butyl Amine	3.9 - 78	1			
		Triethyl Amine	2.15 - 43	1			
		Trimethyl Amine	1.7 - 43	1			
		Cyclohexylamine	6.65 - 133	1			10
Toluene (Methyl Benzene)	STO - 2	Toluene	1 - 25	4	1		50
			2 - 50	2			
			4-100	1			
	STO - 4M	Toluene	10-300	1	2		
UDMH	SHY - 1L	UDMH	0.1 - 2	5	2	H	0.1
Vinyl Chloride	SVC - 2M	Vinyl Chloride	1 - 20	2	1	5	1
	SVC - 6	Vinyl Chloride	0.05-1%	2	1	5	
Water Vapour	SWA - 4L	Water Vapour	0.016 - 0.08 mg/l	4	1		
			0.032 - 0.16 mg/l	2			
			0.064 - 0.32 mg/l	1			
	SWA - 4	Water Vapour	0.048 - 0.32 mg/l	2	1		--

Water Vapour	SWA -4	Water Vapour	0.096 – 0.64 mg/l	1	1		--
			0.192 – 1.28 mg/l	½			
	SWA -5	Water Vapour	0.1 – 2 mg/l	1	1		
	SWA – 7M	Water Vapour	1 – 18 mg/l	1	1		
Xylene	SXY –4	Xylene	25 – 1000	1	2		100
			50 - 2000	½			

**\*Note:**

**5 = 5 measurements**

**H = Humidity sensitive**

**Red marked boxes = Actual printed scale on tube (with tubes that have an extended range).**







**Air Sampling Pumps for Tubes**



<b>Air Sampling Pump ASP-40 Kit</b> <i>(incl. carrying bag, spare connectors, maintenance grease)</i>	UNI-CF000162	100cc
<b>Plastic Air Sampling Pump ASP-11p Kit</b> <i>(incl. spare connectors, maintenance grease)</i>	UNI-CF000161	100cc
Air Sampling Pump ASP-40 <i>(Rental per week)</i>	UNI-CF000162	100cc

**Electronic Single Gas Fumigation Detectors**

<b>350 M Phosphine Alert - Low Range</b>		
<ul style="list-style-type: none"> <li>- Visual and audio indication for alarm</li> <li>- Auto Data logging function</li> <li>- Rechargeable, charger included</li> <li>- Resolution 0,01 ppm</li> <li>- Range 0 - 20 ppm</li> <li>- On board memory for 1000 tests!</li> </ul>		
<b>250 PM Phosphine - High Range</b>		
<ul style="list-style-type: none"> <li>- Auto Data logging function</li> <li>- Inbuilt sampling pump</li> <li>- Resolution 1 ppm</li> <li>- Range 0 - 2000 ppm</li> </ul>		

<p><b>250 PM Phosphine - High Range Bluetooth Connectivity</b></p>		
<ul style="list-style-type: none"> <li>- Auto Data logging function</li> <li>- Inbuilt sampling pump</li> <li>- Resolution 1 ppm</li> <li>- Range 0 - 2000 ppm</li> </ul>		
<p><b>250 PM Phosphine - High Range Without CO cross sensitivity</b></p>		
<ul style="list-style-type: none"> <li>- Auto Data logging function</li> <li>- Inbuilt sampling pump</li> <li>- Resolution 1 ppm</li> <li>- Range 0 - 2000 ppm</li> </ul>		
<p><b>250 PM Phosphine - High Range Without CO Cross Sensitivity &amp; Bluetooth</b></p>		<ul style="list-style-type: none"> <li>- Auto Data logging function</li> <li>- Inbuilt sampling pump</li> <li>- Resolution 1 ppm</li> <li>- Range 0 - 2000 ppm</li> </ul>
<ul style="list-style-type: none"> <li>- Auto Data logging function</li> <li>- Inbuilt sampling pump</li> <li>- Resolution 1 ppm</li> <li>- Range 0 - 2000 ppm</li> </ul>		<p><b>UNIPHOS FumiTrack Online</b></p> <ul style="list-style-type: none"> <li>- PH3 or Mbr or SO2F2</li> <li>- Phosphine : 0 - 2000 ppm</li> <li>- Methyl Bromide: 0 - 200 mg/ltr.</li> <li>- Sulfuryl Fluoride: 0 - 100 mg/ltr.</li> <li>- Powerful suction pump - 100m suction capacity</li> <li>- Inbuilt memory capacity of 1000+ data values</li> <li>- Bluetooth and GSM connectivity</li> <li>- Build in a Pelican Storm Case</li> </ul>

**Electronic Multi Gas Fumigation Detectors**

<p><b>UNIPHOS FumiSense Dual Gas Monitor</b></p>		
<ul style="list-style-type: none"> <li>- Phosphine: 0 - 2000 ppm or</li> <li>- Methyl Bromide: 0 - 200 mg/ltr. or</li> <li>- Sulfuryl Fluoride: 0 - 100 mg/ltr.</li> <li>- Inbuilt sample draw pump</li> <li>- Data logging with a capacity of 500 values</li> </ul>		
<p><b>UNIPHOS FumiSense Tri Gas Monitor</b></p>		<ul style="list-style-type: none"> <li>- Phosphine: 0 - 2000 ppm</li> <li>- Methyl Bromide: 0 - 200 mg/ltr.</li> <li>- Sulfuryl Fluoride: 0 - 100 mg/ltr.</li> <li>- Inbuilt sample draw pump</li> <li>- Data logging with a capacity of 500 values</li> </ul>



<b>Optional Accessories</b>		
Dot Matrix Printer for printing reports		
Bluetooth Dot Matrix Printer		
UNIPHOS Fumi Software for data downloading to computer		
Indestructible Transport/Presentation Case	UNI-200140024	30,5 x 23 x 13,2 cm
Gas Detection Shoulder Bag	UNI-CF0001610	
Extension Hose for Tubes	UNI-010-3009-015	5 meter
Extension Hose for Tubes	UNI-010-3009-035	11 meter
Extension Hose for Tubes		~
Container Fumigation Probe		40 cm
Container Fumigation Probe		100 cm
Tedlar Gas Bag	FAC-FD02-01	1 liter
Tip Cutter Reservoir	UNI-010-203-000	
Gas Cylinder		Liters differs
Demand Flow Regulator		
UNIPHOS Product Training		~



<b>Breath Alcohol Testers</b>		
Breath Alcohol Measuring Kit (10pcs)	UNI-CF000166	0 - 0,2 BAC
Breath Alcohol Measuring Kit (10pcs)	UNI-CF000165	0 - 0,5 BAC
Breath Alcohol Measuring Kit (10pcs)	UNI-CF000167	0 - 0,8 BAC



<b>Air Flow Smoke Tubes</b>		
Air Flow Smoke Tubes (10 pcs)	UNI-CF000732	---
Air Flow Bulb	UNI-CF088888	---



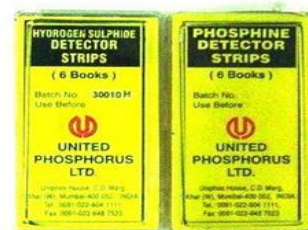
<b>Charcoal Adsorption Tubes for organic gases</b>			
Sealed Charcoal Tubes	(50 pcs)	UNI-CF000162	STANDARD 50/100mg
Sealed Charcoal Tubes	(50 pcs)	UNI-CF000163	LARGE 200/400mg
Sealed Charcoal Tubes	(50 pcs)	UNI-CF000164	JUMBO 200/800mg
Open End Charcoal Tubes	(50 pcs)	UNI-CF000114	STANDARD 50/100mg
Open End Charcoal Tubes	(50 pcs)	UNI-CF000116	LARGE 200/400mg
Open End Charcoal Tubes	(50 pcs)	UNI-CF000118	JUMBO 200/800mg



<b>Dosimeter Tubes for TWA measurements</b>			
Dosimeter Ammonia	(10 pcs)	LAM-2	25 - 500 ppm/hr
Dosimeter Carbon Dioxide	(10 pcs)	LCD-2	(5-120) x 10 <sup>3</sup> ppm/hr
Dosimeter Oxygen	(10 pcs)	LOX-1	(1-100) x 150 ppm/hr
Dosimeter Phosphine - LPG 1	(10 pcs)	LPG-1	(1-200) x 10 <sup>3</sup> ppm/hr
Dosimeter Phosphine - LPG 2	(10 pcs)	LPG-2	(1-200) x 10 <sup>2</sup> ppm/hr



<b>Dissolved Ion Detector Tubes in liquid</b>		
Dissolved Ion Detector: SULPHIDE ION (10 pcs)	DSU - 2M	0.5 - 20 ppm
Dissolved Ion Detector: SULPHIDE ION (10 pcs)	DSU - 3	1 - 100 ppm
Dissolved Ion Detector: SULPHIDE ION (10 pcs)	DSU - 4M	2 - 300 ppm
Dissolved Ion Detector: CHLORIDE ION (10 pcs)	DCL - 4L	5 - 200 ppm
Dissolved Ion Detector: CHLORIDE ION (10 pcs)	DCL - 5M	10 - 2000 ppm



<b>Detector Strips</b>		
Detector Strips: ARSINE	UNI-CF000155	0.05 - 3 ppm
Detector Strips: HYDROGEN CYANIDE	UNI-CF000156	1 - 20 ppm
Detector Strips: HYDROGEN SULPHIDE	UNI-CF000157	1 - 20 ppm
Detector Strips: MERCAPTAN	UNI-CF000158	0.5 - 10 ppm
Detector Strips: PHOSPHINE	UNI-CF000159	0.3 - 10 ppm

### Important information

**Tubes Storage:** For a longer period of time, tubes should always be stored at a temperature below 10 C temperature, and some tubes even below 5 C. You can find this information on the back of each box.

**Warranty:** The ASP-40 Air Sampling Pump will be provided with a 5 year warranty.

**Payment:** Payment shall be done within 30 days netto from day of order.

**General Conditions of Delivery:** The General Conditions of Delivery issued by FHI, Federation of Technology Branches, will be applied on all our transactions, as filed with the Clerk of the District Court of Utrecht and at the Chamber of Commerce in Amersfoort, under the number of 40507574. Exceptions are only valid after written confirmation.

**Batch No.:** From each dispatched package of gas detection tubes, we will hold one package per batch number as a reference at the location where the package has been dispatched from. To be sure every product we dispatch works properly, we test every batch number before dispatching.

**Discarding Tubes:** To protect and keep our environment clean of chemical waste, gas detection tubes should always be discarded with the Small Chemical Waste.