

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Acenaphthene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107
Acenaphthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Acenaphthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Acenaphthene (1,2-dihydroacenaphthylene; 1,8-ethylenenaphthylene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49			
Acenaphthylene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Acenaphthylene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107
Acenaphthylene (Acenaphthalene; cyclopenta[de] naphthalene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49			
Acenaphthylene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Acetaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 o	or	ST	226-119	50
Acetaldehyde	NIOSH 2538	LFC		10		20		8		GC-FID	ST	226-27	48			
Acetaldehyde	NIOSH 3507	LFC		60		125		8		HPLC	IMP	225-36-2	70	IT	225-22	70
Acetaldehyde	OSHA 68	200		3	0.75	50	50	1	15	GC-NPD	ST	226-27	48			
Acetaldehyde (Aldehydes, Screening)	NIOSH 2539	LFC		5		10		8		GC-FID & GC-MS	ST	226-118	50			
Acetamide	OSHA PV2084			10		20(50)		8(3.3)		GC-NPD	ST	226-10	48			
Acetates (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52			
Acetic acid	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Acetic acid	NIOSH 1603	10	15	24		50		8		GC-FID	ST	226-01	48			
Acetic acid	NON 61	10				16.67		see method		IC	PS	500-200	93			
Acetic acid	OSHA PV2119			48		200		4		IC or GC-FID	ST	226-01	48			
Acetic anhydride	NIOSH 3506		5	90		1000		1.5		VAS	IMP	225-36-2	70	IT	225-22	70
Acetic anhydride	OSHA 102	5		7.5	7.5	50	500	2.5	15	GC-NPD	F/CST	225-9010	68	C/HLD	225-1	114
Acetoin	NIOSH 2558			1-10		10-200		varies		GC-FID	ST	226-183	51			
Acetoin (acetyl methyl carbinol)	OSHA 1012	0.05		9	3	50	200	3	15	GC-FID	ST	226-183	51			
Acetone	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
Acetone	Internal					15.2		8-24 hrs		SE, GC	PS	690-105	96			
Acetone	OSHA 69	1000		3		50		1		GC-FID	ST	NA SKC				
Acetone (Ketones I)	NIOSH 1300	250		0.5-3	0.75	10-200	50	25 min-2.5 hrs	15	GC-FID	ST	226-01	48			
Acetone (Ketones I)	NIOSH 2555	250		0.5 - 3		10-200	50	25 min-2.5 hrs	15	GC-FID	ST	NA SKC				
Acetonitrile	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Acetonitrile	NIOSH 1606	20		1 at 40 ppm to 25		10-200	50	100-125 mins		GC-FID	ST	226-09	48			
Acetophenone	OSHA PV2003			12		100		2		GC-FID	ST	226-35	48			
Acetyl methyl carbinol (acetoin)	NIOSH 2558			1-10		10-200		50-100 mins		GC-FID	ST	NA SKC				
Acetylene tetrabromide (1,1,2,2-tetrabromoethane)	NIOSH 2003			50 at 1 ppm to 100		200-1000		100-250 mins		GC-FID	ST	226-10	48			
Acid blue 9	OSHA PV2129	0.2 mg/m³ (Target Concentration)		100		1000		100 min		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
Acridine	OSHA 58	0.2 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113
Acrolein	NIOSH 2501	0.1	0.3	13 at 0.1 to 48		10-100	200	8	15	GC-NPD	ST	226-118	50			
Acrolein	OSHA 52	0.1		48	3	100		8	15	GC-NPD	ST	226-117	50			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Acrolein (Aldehydes, Screening)	NIOSH 2539	0.1	0.3	5		10-50		8		GC-FID & GC-MS	ST	226-118	50			
Acrylamide	OSHA PV2004	0.3 mg/m³		120		1000		2		HPLC-UV	ST	226-57	49			
Acrylic acid	NON 10			48		100		8		GC	ST	226-70A	49			
Acrylic acid	NON 60			24		100		4		HPLC-UV	ST	226-30-08	48			
Acrylic acid	OSHA PV2005	2 (target concentration)		20		100		4		LC-UV	ST	226-30-08	48			
Acrylonitrile	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Acrylonitrile	Internal					20.4 ml/min		8-24 hrs		TD, GC	PS	690-101	96			
Acrylonitrile	Internal					20.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Acrylonitrile	NIOSH 1604	1	10 (15 min)	3.5-20 ♣	3	20(50)	10-200	8	15	GC-FID	ST	226-01	48			
Acrylonitrile	OSHA 37	2		20		200		100 min	15	GC-NPD	ST	226-01	48			
Actinomycetes, thermophilic	NIOSH 0800			varies		28,300		varies		varies	BI	225-9611	134			
Aerobic bacteria (by GC-FAME)	NIOSH 0801	varies with Compound		50-300		28300		varies		GC-FID	BI	225-9611	134			
Alcohols (screening)	NIOSH 2549	varies with Compound		1-6		10-50		100 mins-2 hrs		TD, GC-MS	ST	226-330	52			
Alcohols combined	NIOSH 1405	varies	varies	varies	varies	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
Alcohols I (see specific compounds)	NIOSH 1400	varies		varies		varies		varies		GC-FID	ST	226-01	48			
Alcohols II (see specific compounds)	NIOSH 1401	varies		varies		varies		8		GC-FID	ST	226-01	48			
Alcohols III (see specific compounds)	NIOSH 1402	varies		1-10		10-20		8		GC-FID	ST	226-01	48			
Alcohols IV (see specific alcohol)	NIOSH 1403	varies		varies		varies		varies		GC-FID	ST	226-01	48			
Aldehydes	EPA TO-5			< 80 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70
Aldehydes (screening)	NIOSH 2539	varies		5		10-50		4		GC-FID & GC-MS	ST	226-118	50			
Aldehydes (screening)	NIOSH 2549	varies		1-6		10-50		varies		TD, GC-MS	ST	226-330	52			
Aldicarb (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48
Aldicarb (Temik)	OSHA 74			480		1000		8		GC-NPD	ST	226-30-16	48			
Aldrin	NIOSH 5502	0.25 mg/m³		18-240 ♣		200-1000		90 mins-4 hrs		GC-ECN	F/CST IT	225-709 225-22	108 70	IMP C/HLD	225-36-2 225-1	70 114
Aliphatic hydrocarbons (screening)	NIOSH 2549	varies		1-6		10-50		varies		TD, GC-MS	ST	226-330	52			
Alkaline dusts	NIOSH 7401	2 mg/m³ (NaOH)		70-1000 ♣ 30		1000-4000		70 mins-4 hrs		TITRA	F/CST	225-1715	106	C/HLD	225-1	114
Allyl alcohol	OSHA PV2140	2 (skin)		10		50		200 min		GC-FID	ST	226-01	48			
Allyl alcohol (Alcohols Combined)	NIOSH 1405	2	4 (skin)	varies	varies	2000-10000		varies		GC-FID	ST	226-01	48			
Allyl alcohol (Alcohols III)	NIOSH 1402	2	4 (skin)	1-10	3	200	10	100-8 hrs	15	GC-FID	ST	226-01	48			
Allyl amine						22		8 hrs		HPLC-UV	PS	500-400	92			
Allyl chloride	NIOSH 1000	1	2	16-100 ♣		10-1000		15		GC-FID	ST	226-01	48			
Allyl glycidyl ether	NIOSH 2545	5	10 (skin)	1.5-8 ♣	3	10-200		40-150		GC-FID	ST	226-35-03	48			
Allyl propyl disulfide	OSHA PV2086	2		10		20 ♣		50		GC-FPD	ST	226-110	50			
Alumina (aluminum & compounds [total dust as Al])	NIOSH 7013	10-400		360		1000-3000		2-6		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Alumina (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	CYC F/CST	225-01-02 225-803	125 105	C/HLD	225-1	114
Alumina (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
alpha-Alumina (respirable fraction)	OSHA PV2121	5 mg/m³		varies		varies		varies		GR	CYC C/HLD	225-105 225-1	124 114	F/CST	225-803	105
alpha-Alumina (total dust)	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	FCST	225-802	105	C/HLD	225-1	114
Aluminum (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	10 mg/m³ (total dust)	5 mg/m³ (respirable)	1-330		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Aluminum & compounds (total dust as Al)	NIOSH 7013	10 mg/m³		360		1000		6		AA-F	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-508	100
Aluminum (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	10 mg/m³ (total dust)		5-100		1000-4000		varies		ICP-AES	F/CST F/CST	225-3-01 225-508	or 100	F/CST	225-8408	or
Aluminum (Elements by ICP Hot Block/HCl/HNO₃ Digestion)	NIOSH 7303	10 mg/m³ (total dust) 5 mg/m³ (respirable fume)		2-10,000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-508	100

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Aluminum (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)		5-100		1000-4000		varies		ICP-AES	F/CST C/HLD	225-508 225-1	or 114	F/CST	225-3-01	100	
Aluminum (respirable fraction)	OSHA PV2121	5 mg/m ³		varies		varies		varies		GR	F/CST C/HLD	225-803 225-1	105 114	CYC	225-105	124	
Aluminum (total dust)	OSHA PV2121	15 mg/m ³		480-960		2000		4-8		GR	F/CST CST	225-802 225-2LF	105 113	C/HLD	225-1	114	
Aluminum soluble salts	OSHA ID 121	2 mg/m ³		960		2000		8		AA or AES	F/CST F/CST	225-508 225-3-01	or 100	F/CST C/HLD	225-802 225-1	or 114	
Amines, aromatic	NIOSH 2002	varies		varies		varies		varies		GC-FID or GC-NSD	ST	226-10		48			
Amines, aliphatic	NIOSH 2010	varies		24		50		8		GC-FID	ST	226-10		48			
2-Amino-2-methy-1-propanol	OSHA PV2145			10		100		100 min		LC-UV	ST	226-30-16		48			
4-Aminobiphenyl	OSHA 93			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114	
2-Aminoethanol	OSHA PV2111	3		10	1.5	100	100	100 min	15	HPLC-UV	ST	226-30-18		48			
Aminoethanol compounds I (<i>see specific compounds</i>)	NIOSH 2007	varies		varies		varies		8		GC-FID	ST	226-10-04		48			
Aminoethanol compounds II (<i>see specific compounds</i>)	NIOSH 3509	varies		240		1000		4		IC	IMP	225-36-1	70	IT	225-22	70	
Aminoethylethanalamine	OSHA PV2116			10		100		100 min		LC-UV	ST	226-30-18		48			
p-Aminophenylarsonic acid (arsenic, organo-)	NIOSH 5022			960		2000		8		IC-AA	FLT C/HLD	225-17-01 225-1	106 114	CST	225-3LF	113	
2-Aminopyridine	OSHA PV2143	0.5		240		1000		4		GC-NPD	CF/CST	225-9004	68	C/HLD	225-1	114	
3-Aminopyridine	OSHA PV2143			240		1000		4		GC-NPD	CF/CST	225-9004	68	C/HLD	225-1	114	
4-Aminopyridine	OSHA PV2143			240		1000		4		GC-NPD	CF/CST	225-9004	68	C/HLD	225-1	114	
Amitrole	OSHA PV2006			60		1000		1		HPLC-UV	IMP	225-36-1	70	IT	225-22	70	
Ammonia	NIOSH 6015	25	35	72	3	150	200	8	15	VAS	ST	226-10-06		48	F/CST	225-3-01	100
Ammonia	NON 41			18	5	75	500	4	10	CLR	ST	226-61		49			
Ammonia	OSHA ID 188	50		24	7.5	100	500	4	15	IC-CD	ST	226-29		48			
Ammonia (by IC)	NIOSH 6016	25	35	48	3	100	200	8	15	IC	ST	226-10-06		48	F/CST	225-3-01**	100
Ammonium chloride (fume)	OSHA ID 188			960	30	2000	2000	8	15	IC-CD	F/CST	225-3-01	100	C/HLD	225-1	114	
Ammonium hydroxide (<i>see ammonia</i>)																	
Ammonium metavanadate (<i>see vanadium oxides</i>)	NIOSH 7504																
sec-Amyl acetate (2-pentyl acetate)	NIOSH 1450	125		10		200		50 (min)		GC-FID	ST	226-01		48			
n-Amyl acetate (Esters I)	NIOSH 1450	100		1-10		10-200		varies		GC-FID	ST	226-01		48			
t-Amyl methyl ether (methyl tert-amyl ether)	Internal					13.1 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
t-Amyl methyl ether (methyl tert-amyl ether)	Internal					13.1 ml/min		8-24 hrs		SE, GC	PS	690-105		96			
Aniline	NIOSH 2017	LFC		5-50		200		25 min-4 hrs		GC-FID	CF/CST	225-9004	68	ST	226-15	48	
Aniline	OSHA PV2079	5		30		50		8		GC-FID	ST	226-98		50			
Aniline (Amines, Aromatic)	NIOSH 2002	lowest feasible (carcinogen)		5-30		20-200		25 min-8 hrs		GC-FID or GC-NSD	ST	226-10		48			
Anisidine	NIOSH 2514	0.5 mg/m ³		EPA		500-1000		24 min- 8 hrs		HPLC-UV	ST	226-30-05		48			
Anthophyllite fibers (<i>see asbestos fibers</i>)	NIOSH 7400																
Anthracene	OSHA 58	0.2 mg/m ³		960		2000		8		GR & HPLC- FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113	
Anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m ³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)																	
Anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m ³ (cyclohexane soluble fraction)		1-8		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57		49			
Anthracene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Anthracene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Antimony & compounds (as Sb)	OSHA ID 121	0.5 mg/m ³		960		2000		8		AA or AES	F/CST F/CST	225-508 225-3-01	or 100	F/CST C/HLD	225-802 225-1	or 114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Antimony & compounds (as Sb)	OSHA ID 125G	0.5 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-3100	or or 100	F/CST F/CST C/HLD	225-3100 225-8215 225-1	or or 114		
Antimony (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.05 mg/m³		1-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Antimony (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.5 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105		
Antimony (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.5 mg/m³		3-100,000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	508	100		
Antimony (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.5 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST F/CST	225-508 225-3-01	or 100	F/CST C/HLD	225-802 225-1	or 114		
Antimony (ICP Analysis of Metal/metalloid Particulates from Solder Operations)	OSHA ID 206	0.5 mg/m³		480		2000		4		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-508	100		
Apron	OSHA PV2102			60		1000		1		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114		
Aroclor	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Aroclor	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49					
Aroclor 1242	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Aroclor 1242 (42% Cl) (see polychlorobiphenyls)	NIOSH 5503																	
Aroclor 1254	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Aroclor 1254 (54% Cl) (see polychlorobiphenyls)	NIOSH 5503																	
Aroclor 1260	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Aromatic hydrocarbons (screening)	NIOSH 2549	varies		1-6		10-50		varies		GC-MS	ST	226-330	52					
Arsenic (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.002 mg/m³		32-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Arsenic & compounds (as As)	NIOSH 7900	2 µg/m³ (15 min)		30		2000		15		AA-F	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-508	100		
Arsenic (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.002 mg/m³		5-2000		1000-4000		varies		ICP-AES	F/CST F/CST	225-508 225-3-01	or 100	F/CST C/HLD	225-802 225-1	or 114		
Arsenic (Elements by ICP Hot Block/HCl/HNO₃ Digestion)	NIOSH 7303	0.002 mg/m³		8-5,000,000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-508	100		
Arsenic (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.002 mg/m³ (C)		5-2000		1000-4000		varies		ICP-AES	F/CST F/CST	225-3-01 225-802	or 100	F/CST C/HLD	508 225-1	or 114		
Arsenic (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Arsenic (inorganic compounds as As)	OSHA 1006	0.01 mg/m³		480		2000		4		ICP-MS	F/CST C/HLD	225-508 225-1	or 114	F/CST	225-3-01	100		
Arsenic trioxide as AS	NIOSH 7901	2 mg/m³ (15 min)		30		2000		15		AAS-GF	FLT C/HLD	225-9001 225-1	68 114	CST	225-2LF	113		
Arsenic, inorganic (volatile compounds as As)	OSHA 1006	0.01 mg/m³		480		2000		4		ICP-MS	F/CST C/HLD	225-508 225-1	or 114	F/CST	225-3-01	100		
Arsenic, organo	NIOSH 5022			50-100		1000-3000		8		IC-AA	F/CST C/HLD	225-1713 225-1	106 114	C/HLD	225-2LF	113		
Arsine	NIOSH 6001	2 µg/m³ C (15 min)		0.1-10	3	20	200	8	15	AAS-GF	ST	226-01	48					
Arylam (see carbaryl)																		
Asbestos	OSHA ID 160	0.1 fbr/cc	1 fbr/cc EL	25-1200	25-1200	500-2500	500-2500	varies	varies	PCM	FLT/CL FLT/CL	225-321 225-321A	or or	FLT/CL FLT/CL	225-326 225-327	or 102		
Asbestos ([bulk] by PLM)	NIOSH 9002	1% (bulk)		bulk						PLM								
Asbestos (by TEM)	NIOSH 7402	0.1 fbr/cc/400L		960		2000		8		TEM	FLT/CL	225-327	102					
Asbestos (chrysotile)	NIOSH 9000			bulk						XRD								
Asbestos (structure number concentrations)	ASTM D 5755			varies		2000		2 min (minimum)		TEM	MVC	225-322	171					
Asbestos fibers	NIOSH 7400	0.1 fbr/cc/400L		varies		varies		varies		PCM	FLT/CL FLT/CL	225-321 225-321A	or or	FLT/CL FLT/CL	225-326 225-327	or 102		
Aspartame	NIOSH 5031			1-3		1000-3000		20 mins-7 hrs		HPLC-UV	FLT	225-1715	106	C/HLD	225-1	114		
Asphalt fume (benzene-soluble & total particulate)	NIOSH 5042	5 mg/m³ (15 min) (C)		28-400	60	1000	4000	6	15	GR	FLT	225-1713	106	C/HLD	225-1	114		
Asphalt fume particulate	ASTM D 6494			960		2000		8		GR	F/CST	225-1713	106	C/HLD	225-1	114		
Asphalt fumes (petroleum)	OSHA 58			960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT	225-709	108	C/HLD	225-1	114		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Atrazine	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54			
Atrazine	NIOSH 5602	5		12-480		200-1000		8		GC-ECD	ST	226-58	49	TH	224-29V 37	
Azelaic acid	NIOSH 5019			200-1000		1000-3000		8		GC-FID	F/CST	225-803	105	C/HLD	225-1 114	
Azinphos-methyl	OSHA PV2087	0.2 mg/m³		480		1000		8		GC-FPD	ST	226-30-16	48	TH	224-29V 37	
Azinphos-methyl (Organophosphorus Pesticides)	NIOSH 5600	0.2 mg/m³		12-240		200-1000		4		GC-FPD	ST	226-58	49			
Bacteria	NIOSH 0800			varies		28,300		varies		varies	BI	225-9611	134			
Bacteria (by GC-FAME)	NIOSH 0801			50-300		28300		varies		GC-FID	BI	225-9611	134			
Bacteria (in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A ◊ 136	
Barium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			3-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1 114	
Barium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.5 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥ 105	
Barium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			1-100,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1 114	
Barium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W TMP	225-2414 225-2415	170 170			
Barium (insoluble compounds)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100	
Barium (soluble compounds)	NIOSH 7056	0.5 mg/m³		960		2000		8		AA	F/CST	225-3-01	100	C/HLD	225-1 114	
Barium (soluble compounds)	OSHA ID 121	0.5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100	
Barium chloride (barium, soluble compounds)	NIOSH 7056	0.5 mg/m³		960		2000		8		AA	F/CST	225-3-01	100	C/HLD	225-1 114	
Barium sulfate (total dust)	OSHA ID 121	15 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100	
Baygon (propoxur)	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54			
Baygon (propoxur)	OSHA PV2007			48		100		8		HPLC-UV	ST	226-30-16	48	TH	224-29V 37	
Bendiocarb	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54			
Bendiocarb (Ficam)	OSHA PV2008			240		1000		4		HPLC-UV	ST	226-30-16	48	TH	224-29V 37	
Benomyl (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or 37	ST	226-30-16 48	
Benomyl (respirable dust)	OSHA PV2107	5 mg/m³		varies		varies		varies		HPLC-UV	ST	226-30-16	48	TH	224-29V 37	
Benomyl (total dust)	OSHA PV2107	15 mg/m³		60		1000		1		HPLC-UV	ST	226-30-16	48	TH	224-29V 37	
Bentonite (see <i>Particulates Not Otherwise Regulated</i> , total and respirable)																
Benz(a)anthracene	OSHA In House File			960		2000				HPLC-UV	F/CST	225-709	108	C/HLD	225-1 114	
Benz(a)anthracene (1,2-benzanthracene; 2,3-benzphenanthrene; tetraphene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49			
Benz(a)anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808 107	
Benz(a)anthracene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04 48	
Benz(a)anthracene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04 48	
Benzaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119 50	
Benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Benzene	Internal					16.0 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96	
Benzene	Internal					0.78 ml/min		24 hrs-7 days		TD, GC	PS RR	690-101 690-300	or 96	PS	690-103 with	
Benzene	Internal					16.0 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
Benzene	OSHA 1005	1	5					8	15	GC-FID	PS	575-002	82			
Benzene	OSHA 1005	1	5	12	0.75	50	50	4	15	GC-FID	ST	226-01	48			
Benzene	OSHA 1005	1	5	12	0.5	50	50	240 min	10	GC-FID	ST	226-01	48			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Benzene (by portable GC)	NIOSH 3700	0.1	1 (15 min)	varies		20-5000		varies		P GC-PID	SB	232 Series	61				
Benzene (Hydrocarbons, Aromatic)	NIOSH 1501	0.1	1	5-30	5-30	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
alpha-Benzene hexachloride	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
beta-Benzene hexachloride	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
gamma-Benzene hexachloride	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Benzene-soluble & total particulate (asphalt fume)	NIOSH 5042	5 mg/m³ (15 min) (C)		360	60	1000	4000	6	15	GR	FLT CST	225-17-33 225-2LF	106 113	SP	225-27	115	
Benzene-soluble particulate matter	ASTM D 4600			960		2000		8		GR	FLT CST	225-7 225-2LF	108 113	SP C/HLD	225-27 225-1	115 114	
Benzidine	NIOSH 5509	LFC		96		200		8		HPLC-UV	FLT	225-16	108	CST	225-32	114	
Benzidine	OSHA 65			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114	
Benzidine dyes (dyes, benzidine)	NIOSH 5013	LFC		150 (@0.1mg/m³) -500		1000-3000		varies		8	HPLC	FLT C/HLD	225-17P 225-1	106 114	CST	225-3LF	113
Benzidine-based dyes	OSHA 65			100	15	1000	1000	100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114	
Benzo[a]pyrene (3,4-benzopyrene; 6,7-benzopyrene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Benzo(a)pyrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515	0.1 mg/m³		480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(a)pyrene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF PEM	226-131 761-200B	55 130	FLT FLT	225-1808 225-1709	107 106	
Benzo(a)pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo[b]fluoranthene (3,4-benzfluoranthene; 2,3-benzofluoranthene; benzo[e]acephenanthrylene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Benzo(b)fluoranthene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF PEM	226-131 761-203B	55 130	FLT FLT	225-1808 225-1709	107 106	
Benzo(b)fluoranthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(b)fluoranthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(e)pyrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(e)pyrene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Benzo(e)pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo[g,h,i] perylene (1,12-benzoperylene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Benzo(g,h,i)perylene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Benzo(g,h,i)perylene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(g,h,i)perylene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo[k]fluoranthene (benzofluoranthene; 2,3,1',8'-binaphthylene; dibenzo[b,k]fluorene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Benzo(k)fluoranthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzo(k)fluoranthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzoalapharyrene	OSHA 58	0.2 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113	
Benzophenone	NON 39			480		1000		8		GC-FID	ST	226-56	49				
Benzophenone	OSHA PV2130	0.5 mg/m³		48		200		4		GC-FID	ST	226-110	50				
Benzothiazole in asphalt fume	NIOSH 2550			480		1000		8		GC-SCD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Benzoyl peroxide	NIOSH 5009	5 mg/m³		90		1500		1		HPLC-UV	F/CST	225-3-01	100	C/HLD	225-1	114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates					
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time							
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number				
Benzyl acetate	OSHA PV2124			10		100		100 min		GC-FID	ST	226-73	49		
Benzyl alcohol	OSHA PV2009			24		100		4		GC-FID	ST	226-95	50		
Benzyl chloride (hydrocarbons, halogenated)	NIOSH 1003	1		10		10-200		varies		GC-FID	ST	226-01	48		
Beryllium & compounds	OSHA ID 125G	0.2 µg/m³	2.0 µg/m³	480	60	2000	2000	4	15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST 225-3100 F/CST 225-8215 or 105	
Beryllium & compounds (as Be)	NIOSH 7102	0.5 µg/m³		960		2000		8		AA-GF	F/CST	225-3-01	100	C/HLD 225-1 114	
Beryllium & compounds (as Be)	OSHA 1023	0.2 µg/m³	2.0 µg/m³	480	30	2000	2000	4	15	ICP-AES	FLT SM TB	225-5 225-24	100 170	CST 225-2LF 113	
Beryllium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.0005 mg/m³	0.005 mg/m³	10-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD 225-1 114	
Beryllium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.0005 mg/m³		1250-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-803 105	
Beryllium (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			35-25,000,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1 114	
Beryllium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	0.0005 mg/m³		1250-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-8408 100	
Beryllium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP 225-2415 170	
Beryllium (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	0.2 µg/m³	2.0 µg/m³	480	10	2000	2000	4	5	ICP-AES	F/CST	225-3-01	100	C/HLD 225-1 114	
Beryllium (in air by portable fluorometry)	NIOSH 7704	2 mg/m³	5 mg/m³ (C)	240-2000		1000-4000				P FLUOR UV/VIS	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-3100 100	
BHC (alpha-, beta-, gamma-)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54		
Bioaerosol sampling	NIOSH 0800			varies		28,300		varies		varies	BI	225-9611	134		
Bioaerosols				15-150		15000		1-10 min		varies	STC	225-9820	112		
Bioaerosols	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT 225-9598A 136	
Biphenyl (diphenyl)	NIOSH 2530	0.2		10		20(50)		8(3.3)		GC-FID	ST	226-35-01	48		
4,4'-Bipyridine (vapor & aerosol)	NON 26			96	2	200	200	8	10	HPLC	ST C/HLD	226-30-05 225-1	48 114	F/CST 225-706 108	
Bismuth	OSHA ID 121			480-960		2000		4-8		AAS/AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST 225-802 F/CST 225-8408 or 100	
Bismuth (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			1-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1 114	
Bismuth telluride, Se-doped	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST 225-802 F/CST 225-8408 or 100	
Bismuth telluride, undoped (respirable dust)	OSHA ID 121	5 mg/m³		varies		varies		varies		GR & AA or GR & AES	CYC F/CST	225-105 225-803	124 105	C/HLD 225-1 114	
Bisphenol A	OSHA 1018			240		1000		240 (min)		HPLC-UV/ PDA	F/CST	225-709	108	C/HLD 225-1 114	
Borates tetrasodium salts (anhydrous, decahydrate & pentahydrate)	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST 225-3100 F/CST 225-8215 or 105	
Boron (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			1-3,300		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1 114	
Boron carbide	NIOSH 7506			600		2500		4		XRD	F/CST CYC	225-803 225-01-02	105 125	C/HLD 225-1 114	
Boron oxide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD 225-1 CST 225-3LF 113	
Boron oxide (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD 225-1 114	
Bromine	NIOSH 6011	0.1	0.3	240	15	1000	1000	4	15	IC	CF/CST	225-9006	68	C/HLD 225-1 114	
Bromine	OSHA ID 108	0.1		120	7.5	500	500	4	15	IC	IMP	225-36-2	70	IT 225-22 70	
Bromoethane (ethyl bromide)	NIOSH 1011			4		20(50)		3.3(1.3)		GC-FID	ST	226-01	48		
Bromoform (hydrocarbons, halogenated)	NIOSH 1003	0.5 (skin)		10		10-200		varies		GC-FID	ST	226-01	48		
1-Bromopropane	Internal					14.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS 690-103 96	
1-Bromopropane	Internal					14.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96		
1-Bromopropane	NIOSH 1025			0.1-12		10-200		varies		GC-FID	ST	226-01	48		
1-Bromopropane	OSHA 1017			12		50		240 (min)		GC-FID	ST	226-01	48		
1-Bromopropane	OSHA PV2061			12		100		2		GC-FID	ST	226-01	48		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
2-Bromopropane	NIOSH 1025			0.1-12		10-200		varies		GC-FID	ST	226-01	48			
2-Bromopropane	OSHA 1017			12		50		240 (min)		GC-FID	ST	226-01	48			
2-Bromopropane	OSHA PV2062			12		100		2		GC-FID	ST	226-01	48			
Bromotrifluoromethane (trifluorobromomethane)	NIOSH 1017	1000		0.1(@ 1000ppm)-1L		10-50		2-100 min		GC-FID	ST	226-09	48	ST	226-01	48
Bromoxynil	NIOSH 5010			240		1000		4		HPLC-UV	F/CST	225-1713	106	C/HLD	225-1	114
Bromoxynil octanoate	NIOSH 5010			240		1000		4		HPLC-UV	F/CST	225-1713	106	C/HLD	225-1	114
BTEX (hydrocarbons, aromatic. See benzene, toluene, ethylbenzene, and xylene)	NIOSH 1501	varies		varies		varies		varies		GC-FID	ST	226-01	48			
1,3-Butadiene	NIOSH 1024	LFC		10		20		8		GC-FID	ST	226-37	49			
1,3-Butadiene	NON 62	1	5			14.9 ml/min		See method		TD, GC/FID	PS	690-106	96			
1,3-Butadiene	OSHA 56	1	5	3		50		1		GC-FID	ST	226-73	49			
Butane	OSHA PV2010			3		50		1		GC-FID	ST	NA SKC				
1-Butanethiol (butyl mercaptan)	NIOSH 2525		0.5	1		50		15		GC-FPD	ST	226-109	50			
n-Butanol (alcohols combined)	NIOSH 1405	50 (skin)		2-10		10-200		varies		GC-FID	ST	226-01	48			
2-Butanone	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Butanone	Internal					16.9 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
2-Butanone	Internal					16.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
2-Butanone	OSHA 1004	200		12		50		4		GC-FID	ST	575-002	82			
2-Butanone (methyl ethyl ketone)	NIOSH 2500	200	300	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-81A	49			
2-Butanone (methyl ethyl ketone)	OSHA 1004	200				16.88		8		GC-FID	PS	575-002	82			
2-Butoxyethanol (alcohols IV)	NIOSH 1403	5 (skin)		2-10		10-50		varies		GC-FID	ST	226-01	48			
2-Butoxyethanol (butyl CELLOSOLVE solvent)	OSHA 83	50		48		100		8		GC-FID	ST	226-01	48			
2-Butoxyethanol acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Butoxyethanol acetate (butyl CELLOSOLVE acetate)	OSHA 83			48		100		8		GC-FID	ST	226-01	48			
n-Butyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
n-Butyl acetate	Internal					12.3 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
n-Butyl acetate	Internal					12.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
n-Butyl acetate	OSHA 1009	150				13.07	13.07	8	15	GC-FID	PS	575-002	82			
n-Butyl acetate	OSHA 1009	150		12	0.75	50	50	4	15	GC-FID	ST	226-01	48			
sec-Butyl acetate	OSHA 1009	200				12.74	12.74	8	15	GC-FID	PS	575-002	82			
sec-Butyl acetate	OSHA 1009	200		12	0.75	50	50	4	15	GC-FID	ST	226-01	48			
t-Butyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
t-Butyl acetate	OSHA 1009	200				13.09	13.09	8	15	GC-FID	PS	575-002	82			
t-Butyl acetate	OSHA 1009	200		12	0.75	50	50	4	15	GC-FID	ST	226-01	48			
n-Butyl acetate (Esters I)	NIOSH 1450	150	200	1-10	1-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
sec-Butyl acetate (Esters I)	NIOSH 1450	200		1-10		10-200		varies		GC-FID	ST	226-01	48			
t-Butyl acetate (Esters I)	NIOSH 1450	200		1-10		10-200		varies		GC-FID	ST	226-01	48			
Butyl acrylate	Internal					11.7 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
Butyl acrylate	Internal					11.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Butyl acrylate	OSHA PV2011			12		50		4		GC-FID	ST	226-73	49			
n-Butyl acrylate	NON 54	5	15	10	3	20	200	8	15	GC-FID	ST	226-81A	49			
n-Butyl alcohol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
n-Butyl alcohol	OSHA 5001	200		12		4				GC-FID	ST	226-82	50			
sec-Butyl alcohol	OSHA 5001	200		12		4				GC-FID	ST	226-82	50			
n-Butyl alcohol (alcohols combined)	NIOSH 1405	50 (skin)		2-10		10-200		varies		GC-FID	ST	226-01	48			
sec-Butyl alcohol (alcohols combined)	NIOSH 1405	100	150	2-10	2-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
t-Butyl alcohol (Alcohols I)	NIOSH 1400	100	150	10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
n-Butyl alcohol (alcohols II)	NIOSH 1401		50	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48			
sec-Butyl alcohol (alcohols II)	NIOSH 1401	100	150	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48			
n-Butyl amine			5			18		8 hrs		HPLC-UV	PS	500-400	92			
Butyl butyrate	OSHA PV2090			10		200		50 min		GC-FID	ST	226-01	48			
Butyl carbitol (diethylene glycol monobutyl ether)	OSHA PV2095			10		200		50 min		GC-FID	ST	226-01	48			
Butyl carbitol acetate	OSHA PV2095			10		200		50 min		GC-FID	ST	226-01	48			
Butyl CELLOSOLVE acetate (see 2-butoxyethanol acetate)	OSHA 83															
Butyl CELLOSOLVE solvent (see 2-butoxyethanol)	OSHA 83															
t-Butyl chromate (as CrO ₃)	OSHA ID 215 (V2)	0.005 mg/m ³		960		2000		15		IC-UV	F/CST	225-802	105	C/HLD	225-1	114
t-Butyl ethyl ether (ethyl tert-butyl ether)	Internal					13.1 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	96
t-Butyl ethyl ether (ethyl tert-butyl ether)	Internal					13.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
n-Butyl glycidyl ether	NIOSH 1616		5.6 (15 min)		3		200		15	GC-FID	ST	226-01	48			
n-Butyl lactate	OSHA PV2080			10		200		50 min		GC-FID	ST	226-01	48			
n-Butyl mercaptan	NIOSH 2525		0.5		1		50		15	GC-FPD	ST	226-109	50			
n-Butyl mercaptan (mercaptans)	NIOSH 2542		0.5 (15 min)	48	12	100	200	8	60	GC-FPD	CF/CST	225-9007	68	C/HLD	225-1	114
t-Butyl methyl ether (MTBE)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
t-Butyl methyl ether (MTBE)	Internal					13.6 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
Butyl ziram	OSHA PV2065			180		1000		3		HPLC-UV	ST	226-30-16	48	TH	224-29V	37
n-Butylamine	NIOSH 2012		5		15		1000		15	GC-FID	ST	226-53	49			
Butylated hydroxytoluene	OSHA PV2108			100		1000		100 min		GC-FID	ST	226-57	49			
1,3-Butylene glycol (glycols)	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49			
o-sec-Butylphenol	OSHA PV2128			20		200		1.6		HPLC-UV	ST	226-95	50			
p-tert-Butylphenol	OSHA PV2085			20		200		100 min		GC-FID	ST	226-95	50			
Butyltin trichloride	OSHA ID 217SG			240		1000		4		AA-GF	ST	226-30-16	48			
p-tert-Butyltoluene	Internal					10.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
p-tert-Butyltoluene	Internal					10.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
p-tert-Butyltoluene (Hydrocarbons, Aromatic)	NIOSH 1501	10	20	1-29	1-29	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
Butyraldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
Butyraldehyde (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50			
Cadmium & compounds (as Cd)	NIOSH 7048	LFC		480	30	1000	2000	8	15	AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Cadmium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	LFC		3-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Cadmium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	LFC		13-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105
Cadmium (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			3-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Cadmium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	LFC		13-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100
Cadmium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170
Cadmium dust (as Cd)	OSHA ID 121	0.2 mg/m ³	0.5 mg/m ³	960	30	2000	2000	8	15	AA	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Cadmium	OSHA 1006	0.2 mg/m ³	0.5 mg/m ³	480		2000		4		ICP-MS	F/CST	225-3-01	100	C/HLD	225-1	114
Cadmium	OSHA 5003	0.2 mg/m ³	0.5 mg/m ³	480		2000		4		ICP-MS	F/CST	225-3-01	100	C/HLD	225-1	114
Cadmium	OSHA ID125G	0.1 mg/m ³ (fume) 0.2 mg/m ³ (dust)	0.3 mg/m ³ (fume) 0.6 mg/m ³ (dust)	480	30	2000	2000	4	15	ICP	F/CST	225-3-01	100	C/HLD	225-1	114
Cadmium dust (as Cd)	OSHA ID 206	0.2 mg/m ³	0.5 mg/m ³	960	30	2000	2000	8	15	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Cadmium fume (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	0.1 mg/m³	0.3 mg/m² (C)	480		2000		4		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium & compounds (as Ca)	NIOSH 7020	varies		240		1000		4		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Calcium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	varies		5-200		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105
Calcium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			2-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	varies		5-200		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium (see specific compounds)	NIOSH 7020	varies		varies		varies		varies		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium carbonate	OSHA ID 121	15 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Calcium carbonate (calcium)	NIOSH 7020	2 mg/m³		240		1000		4		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium carbonate (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Calcium carbonate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Calcium carbonate (see Particulates Not Otherwise Regulated, total and respirable)																
Calcium cyanamide	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Calcium hydroxide	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Calcium hydroxide (calcium)	NIOSH 7020	2 mg/m³		240		1000		4		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium hydroxide (see Particulates Not Otherwise Regulated, total and respirable)																
Calcium oxide	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Calcium oxide (calcium)	NIOSH 7020	2 mg/m³		240		1000		4		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium oxide (Elements by ICP HNO₃ Digestion)	NIOSH 7303	2 mg/m³		3-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Calcium silicate (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Calcium silicate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Calcium sulfate (Particulates Not Otherwise Regulated, total and respirable)																
Camphor (Ketones II)	NIOSH 2553	2		1-25		10-200		varies		GC-FID	ST	NA SKC				
Camphor (Ketones II)	NIOSH 1301	2		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
Caprolactam (dust and vapor)	OSHA PV2012	5 mg/m³		100		1000		100 min		HPLC-UV	ST	226-57	49	TH	224-29V	37
Capsaicin	NIOSH 5041			480	15	1000	1000	8	15	HPLC-FD	FLT	225-16	108	CST	225-32	114
Captan	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Captan	OSHA PV2093			60		1000		1		HPLC-UV	ST	226-30-16	48	TH	224-29V	37
Captan (Organonitrogen Pesticides)	NIOSH 5601	5 mg/m³		240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or 37	ST	226-30-16	48
Carbaryl	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54			
Carbaryl (Organonitrogen Pesticides)	NIOSH 5601	5 mg/m³		240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or 37	ST	226-30-16	48
Carbaryl (Sevin)	NIOSH 5006	5 mg/m³		240		1000		4		VAS	F/CST	225-706	108	C/HLD	225-1	114
Carbaryl (Sevin)	OSHA 63	5 mg/m³		60		1000		1		HPLC-UV	ST	226-30-16	48	TH	224-29V	37
Carbendazim (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or 37	ST	226-30-16	48
Carbitol	OSHA PV2013			10		200		50 min		GC-FID	ST	226-01	48			
Carbitol acetate	OSHA PV2013			10		200		50 min		GC-FID	ST	226-01	48			
Carbofuran	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54			
Carbofuran (Organonitrogen Pesticides)	NIOSH 5601	0.1 mg/m³		240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or 37	ST	226-30-16	48

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Carbon black	NIOSH 5000	3.5 mg/m³		360		1500		4		GR	FLT SCN	225-5-37-P 225-26	105 115	CST C/HLD	225-3LF 225-1	113 114	
Carbon black	OSHA ID 196	3.5 mg/m³		960		2000		8		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Carbon dioxide	OSHA ID 172	5000	30000	2-5	2-5	10-50	300	4-8	15	GC-TCD	SB	253 Series	or	SB	263 Series	62	
Carbon dioxide (by portable GC)	NIOSH 6603	5000	30000	varies	varies	20-100	20-100	varies	varies	P GC-TCD	SB	232 Series	61				
Carbon disulfide	NIOSH 1600	1	10	10	3	20(50)	200	8(3.3)	15	GC-FPD	ST	226-01	48	DRT	226-44	49	
Carbon monoxide	OSHA ID 210	50		2-5	2-5	10-50	1000	varies	varies	GC-DID	SB SB	252 Series 262 Series	or or	SB SB	253 Series 263 Series	or 62	
Carbon tetrachloride	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Carbon tetrachloride	Internal					0.59 ml/min		8-24 hrs		TD, GC	PS RR	690-101 690-300	or 96	PS	690-103	with	
Carbon tetrachloride	Internal					14.1 ml/min		8 hrs- 7 days		SE, GC	PS	690-105	96				
Carbon tetrachloride (hydrocarbons, halogenated)	NIOSH 1003	2 (1 hrs)		15		10-200		varies		GC-FID	ST	226-01	48				
Carbon, activated (Particulates Not Otherwise Regulated, total)																	
3-Carene (terpenes)	NIOSH 1552			24		50		8		GC-FID	ST	226-01	48				
Catechol (pyrocatechol)	OSHA PV2014			100		1000		100 min		HPLC-UV	ST	226-57	49				
Cell fragments (bioaerosols)				15-150		15000		1-10 min		varies	STC	225-9820	112				
CELLOSOLVE acetate (see 2-ethoxyethyl acetate)																	
CELLOSOLVE solvent (see 2-ethoxyethanol) (alcohols IV)	NIOSH 1403																
Cellulose (paper fiber) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113	
Cellulose (paper fiber) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Cellulose (see Particulates Not Otherwise Regulated, total and respirable)																	
Cellulose insulation	NIOSH 7404			varies		1000		varies		SEM	FLT/CL	225-1604	109				
Cerium	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Chlordane	NIOSH 5510	0.5 mg/m³		150		1000		2.5		GC-ECD	ST CST C/HLD	226-107 225-2LF 225-1	50 113 114	FLT SCN	225-5 225-26	100 115	
Chlordane	OSHA 67	0.5 mg/m³		480		1000		8		GC-ECD	ST	226-30-16	48	TH	224-29V	37	
Chlordane (non-occupational exposure)	ASTM D 4947			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Chlordane (technical)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Chlorinated & organonitrogen herbicides	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49				
Chlorinated & organonitrogen herbicides (hand wash)	NIOSH 9200									GC-ECD	NA SKC						
Chlorinated camphene (toxaphene)	NIOSH 5039	LFC		30	15	1000	1000	0.5	15	GC-ECD	F/CST	225-3-01	100	C/HLD	225-1	114	
Chlorinated diphenyl ether (chlorinated diphenyl oxide)	NIOSH 5025	0.5 mg/m³		180		1000		3		GC-ECD	F/CST	225-3-01	100	C/HLD	225-1	114	
Chlorinated diphenyl oxide	NIOSH 5025	0.5 mg/m³		90		1000		1.5		GC-ECD	F/CST	225-3-01	100	C/HLD	225-1	114	
Chlorinated hydrocarbons (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52				
Chlorinated terphenyl (60% chlorine)	NIOSH 5014			720		1500		8		GC-ECD	F/CST	225-706	108	C/HLD	225-1	114	
Chlorine	NIOSH 6011	0.5	1	90	15	1000	1000	1.5	15	IC	CF/CST	225-9006	68	C/HLD	225-1	114	
Chlorine	OSHA ID 101	1 (C)		240	15	1000	1000	4	15	ISE	IMP	225-36-2	70	IT	225-22	70	
Chlorine (prefiltered)	OSHA ID 101	1 (C)		240	15	1000	1000	4	15	ISE	IMP CST FLT	225-36-2 225-3-23 225-17-21	70 113 106	IT SP	225-22 225-2901	70 115	
Chlorine dioxide	OSHA ID 202	0.1		120	7.5	500	500	4	15	IC-CD	IMP	225-36-2	70	IT	225-22	70	
1-Chloro-1-nitropropane	NIOSH S211	20		12		200				GC-FID	ST	NA SKC					
5-Chloro-2-methyl-4-isothiazolin-3-one (Kathon 886)	NON 55	0.75 mg/m³ 0.23 mg/m³		50	7.5	200	500	4	15	HPLC-UV	ST	226-99	50				
1-Chloro-4-(trifluoromethyl)benzene	NIOSH 1026			0.1-10.0		10-200		8		GC-FID	ST	226-01	48				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞											
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time					
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number		
Chloroacetaldehyde	NIOSH 2015	1		3		200		15		GC-ECD	ST	226-15GWS	48
Chloroacetaldehyde	OSHA 76	1 (C)		2.5		500		5		GC-ECD	ST	226-15GWS	48
Chloroacetic acid	NIOSH 2008			48		100		8		IC-CD	ST	226-47-01	49
p-Chloroaniline	OSHA PV2109			6		100		1		HPLC-UV	ST	226-10	48
Chlorobenzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST	226-300 Series 224-26-CPC	52 37
Chlorobenzene	Internal					14.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or PS 690-104 96
Chlorobenzene	Internal					14.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96
Chlorobenzene (monochlorobenzene) (hydrocarbons, halogenated)	NIOSH 1003			10		10-200		varies		GC-FID	ST	226-01	48
4-Chlorobenzotrifluoride	NIOSH 1026			0.1-10.0		10-200		varies		GC-FID	ST	226-01	48
p-Chlorobenzotrifluoride	NIOSH 1026			0.1-10.0		10-200		varies		GC-FID	ST	226-01	48
Chlorobiphenyl	NIOSH 5503	0.001 mg/m ³ (10 hrs)		48		100(200)		8(4)		GC-ECD	FLT ST	225-16 226-39	108 49 CST 225-32 114
Chlorobromomethane (hydrocarbons, halogenated)	NIOSH 1003	200		60		10-200		8		GC-FID	ST	226-01	48
Chlorodiphenyl (42% Cl)	OSHA PV2089	1		60		1000		1		GC-ECD	ST	226-30-16	48 TH 224-29V 37
Chlorodiphenyl (42% Cl) (see polychlorinated biphenyls)	NIOSH 5503												
Chlorodiphenyl (54% Cl)	OSHA PV2088	0.5		60		1000		1		GC-ECD	ST	226-30-16	48 TH 224-29V 37
Chlorodiphenyl (54% Cl) (see polychlorinated biphenyls)	NIOSH 5503												
Chloroethane (ethyl chloride)	NIOSH 2519			3		50		1		GC-FID	ST	226-09	48
2-Chloroethanol (ethylene chlorohydrin)	NIOSH 2513	1		10		20(50)		8(3.3)		GC-FID	ST	226-81A	49
Chloroform	Internal					13.0 ml/min		8 hrs-7 days		SE, GC	PS	690-105	96
Chloroform (trichloromethane)	OSHA 05	50 (C)		10		200		50 min		GC-FID	ST	226-01	48
Chloroform (trichloromethane) (hydrocarbons, halogenated)	NIOSH 1003	2		15		10-200		varies		GC-FID	ST	226-01	48
bis-Chloromethyl ether	OSHA 10			50		500		100 min		GC-ECD	IMP	225-36-2	70 IT 225-22 70
Chloromethyl methyl ether	NON 29			2.4	0.3	10	20	4	15	GC-ECD	ST	NA SKC	
Chloromethyl methyl ether	OSHA 10			50		500		100 min		GC-ECD	IMP	225-36-2	70 IT 225-22 70
4-Chloronitrobenzene (nitrobenzenes)	NIOSH 2005	0.1 ppm		96		200		8		GC-FID	ST	226-10	48
p-Chlorophenol	NIOSH 2014			24		50		8		HPLC-UV	ST	226-10	48
Chloropicrin	NON 51	0.1		144		100		24		GC-MSD	ST	226-175	51
Chloropicrin	OSHA PV2103	0.1		3		200		15 min		GC-ECD	ST	226-93	50
beta-Chloroprene	NIOSH 1002	1 (15 min)		1.5		100		15		GC-FID	ST	226-01	48
beta-Chloroprene	OSHA 112	25		6		50		2		GC-ECD	ST	226-111A	50
Chlorothalonil	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54
Chlorotoluron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54
Chlorpropham (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST TH	226-58 224-29V	or ST 226-30-16 48
Chlorpyrifos (Dursban)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54
Chlorpyrifos (Dursban)	OSHA 62			480		1000		8		GC-FPD	ST	226-30-16	48
Chlorpyrifos (Organophosphorus Pesticides)	NIOSH 5600	0.2 mg/m ³		240		1000		4		GC-FPD	ST	226-58	49
Chromic acid & chromates (as CrO ₃)	OSHA ID 215 (V2)	0.005 mg/m ³		960		2000		8	15	IC-UV	F/CST	225-802 Ω	105 C/HLD 225-1 114
Chromic acid & chromates (chromium hexavalent)	NIOSH 7600	1 µg/m ³ (10 hrs)		240		1000		4		VAS	F/CST	225-803	105 C/HLD 225-1 114
Chromic acid & chromates (chromium hexavalent)	NIOSH 7604	1 µg/m ³ (10 hrs)		960		2000		8		IC-CD	F/CST	225-803	105 C/HLD 225-1 114
Chromium & compounds (as Cr)	NIOSH 7024	0.5 mg/m ³		10 - 1000		1000-3000		varies		AA-F	F/CST C/HLD	225-3-01 225-1	100 114
Chromium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.5 mg/m ³		1-2000		1000-4000		varies		ICP-AES	SC	225-8517	101 C/HLD 225-1 114

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞							skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Chromium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.5 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-8408	100	
Chromium (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.5 mg/m³		8-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1	114	
Chromium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.5 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1	114	
Chromium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP 225-2415	170	
Chromium acetate	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or 100	
Chromium carbonate	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or 100	
Chromium metal & insoluble compounds	OSHA ID 121	1 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or 100	
Chromium metal & insoluble compounds	OSHA ID 125G	1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST 225-3100 225-8215	or 105	
Chromium phosphate	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or 100	
Chromium soluble salts (except hexavalent)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or 100	
Chromium trioxide (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m³		960		2000		8		IC-UV	F/CST	225-802	105	C/HLD 225-1	114	
Chromium, hexavalent	ASTM D 6832			varies		1000-5000		varies		IC	F/CST F/CST	225-802 225-709	or or	F/CST F/CST 225-1713 225-401	or 107	
Chromium, hexavalent	NIOSH 7600	1 µg/m³ (10 hrs)		240		1000		4		VAS	F/CST	225-802	105	C/HLD 225-1	114	
Chromium, hexavalent	NIOSH 7604	1 µg/m³ (10 hrs)		240		1000		4		IC-CD	F/CST	225-802	105	C/HLD 225-1	114	
Chromium, hexavalent	NIOSH 7605	0.001 mg/m³ (10 hrs)		1-400		1000-4000		varies		IC-PCD-UV	F/CST	225-802	105	C/HLD 225-1	114	
Chromium, hexavalent	NIOSH 7703	0.001 mg/m³ (10 hrs)		10-1200		1000-4000		varies		P VAS	F/CST	225-802	105	C/HLD 225-1	114	
Chromium, hexavalent	OSHA W4001	0.005 mg/m³ (C)								IC-UV	FLT	225-5-37	or	FLT 225-1822	107	
Chromium, hexavalent (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m³		960		2000		8		IC-UV	F/CST	225-802 Ω	105	C/HLD 225-1	114	
Chromium, hexavalent (in settled dust)	NIOSH 9101			bulk	bulk					CLR or VAS or IC						
Chrysene	OSHA 58	0.2 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST 225-2LF	113	
Chrysene (1,2-benzophenanthrene; benzo[a]phenanthrene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49			
Chrysene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT 225-1808	107	
Chrysene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515	LFC		480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST 226-30-04	48	
Chrysene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506	LFC		480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST 226-30-04	48	
Chrysotile (see asbestos fibers)	NIOSH 9000			bulk						XRD						
Chrysotile fibers (see asbestos fibers)	NIOSH 7400															
Coal dust (> 5% SiO₂) (see silica, respirable crystalline)	OSHA ID 142 (v4)															
Coal tar naphtha (naphthas)	NIOSH 1550	100		3		20		2.5		GC-FID	ST	226-01	48			
Coal tar pitch volatiles	OSHA 58	0.2 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST 225-2LF	113	
Cobalt	OSHA ID 213	0.1 mg/m³		480		2000		6		ICP-AES	F/CST	225-3-01	100	C/HLD 225-1	114	
Cobalt & compounds (as Co)	NIOSH 7027	0.05 mg/m³		960		2000		8		AA-F	F/CST	225-3-01	100	C/HLD 225-1	114	
Cobalt (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.05 mg/m³ (dust, fume)		1-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD 225-1	114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Cobalt (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.5 mg/m³ (dust, fume)		25-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105		
Cobalt (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.5 mg/m³ (dust, fume)		3-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Cobalt (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.05 mg/m³ (dust, fume)		25-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Cobalt (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Cobalt acetate	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105		
Cobalt carbonyl	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Cobalt hydrocarbonyl	OSHA ID 121	0.1 mg/m³ (as Co)		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Cobalt metal, dust & fume	OSHA ID 125G	0.1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105		
Cobalt metal, dust & fume (as Co)	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Coke oven emissions	OSHA 58	0.15 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113		
Command (dimethazone)	OSHA PV2066			60		1000		1		GC-ECD	ST	226-30-16	48	TH	224-29V	37		
Copper (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	1 mg/m³ (dust) 0.1 mg/m³ (fume)		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105		
Copper (Elements by ICP HNO₃ Digestion)	NIOSH 7303	1 mg/m³ (dust) 0.1 mg/m³ (fume)		15-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Copper (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	1 mg/m³ (dust) 0.1 mg/m³ (fume)		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100		
Copper (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Copper dust	NIOSH 7029	1 mg/m³		480		1000		8		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114		
Copper dusts & mists	OSHA ID 125G	1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105		
Copper dusts & mists (as Cu)	OSHA ID 121	1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Copper fume	NIOSH 7029	0.1 mg/m³		480		1000		8		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114		
Copper fume	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Copper fume	OSHA ID 125G	0.1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105		
Copper fume (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	0.1 mg/m³		480		2000		4		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Co-Ral (coumaphos)	OSHA PV2134			480		1000		8		GC-FPD	ST	226-30-16	48	TH	224-29V	37		
Corn starch (Particulates Not Otherwise Regulated, respirable)																		
Corundum (Al₂O₃) (see alpha-alumina [total dust])																		
Corundum (emery) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Corundum (emery) (particulates, total)	NIOSH 0500			120		2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
di-tert-butyl-p-Cresol	OSHA PV2108			100		1000		100 min		GC-FID	ST	226-57	49					
Cresol (all isomers)	NIOSH 2546	10 mg/m³		24		100		4		GC-FID	ST	226-95	50					
Cresol (all isomers)	OSHA 32	5		24		100		4		HPLC-UV	ST	226-95	50					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Cresols	EPA TO-8			< 80 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70	
Cristobalite (see silica, respirable crystalline)	OSHA ID 142 (v4)																
Cristobalite (silica, crystalline [respirable] by XRD)	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST C/HLD	225-803 225-1	105 114	CYC	225-01-02	125	
Cristobalite (silica, crystalline by IR)	NIOSH 7602	0.05 mg/m³		1000		2000-4000		varies		IR	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114	
Crocidolite fibers (see asbestos fibers)	NIOSH 7400																
Crotonaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120	or	ST	226-119	50	
Crotonaldehyde	NIOSH 3516	2		48		200		4		DPP	IMP	225-36-2	70	IT	225-22	70	
Crotonaldehyde	OSHA 81	2		6		100		1		HPLC-UV	CF/CST	225-9019	68	C/HLD	225-1	114	
Crotonaldehyde (Aldehydes, Screening)	NIOSH 2539	2		5		20		4		GC-FID & GC-MS	ST	226-118	50				
Cruformate	OSHA PV2015			60		1000		1		GC-FPD	ST	226-30-16	48	TH	224-29V	37	
Cryolite (fluorides)	NIOSH 7902	2.5 mg/m³		480		1000		8		ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Cumene (isopropyl benzene)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Cumene (isopropyl benzene)	Internal					12.8 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96	
Cumene (isopropyl benzene)	Internal					12.8 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Cumene (isopropyl benzene)	OSHA PV2137	50		24		200		2		GC-FID	ST	226-01	48				
Cumene (isopropyl benzene) (Hydrocarbons, Aromatic)	NIOSH 1501	50 (skin)		1-30		10-200		8(3.3)		GC-FID	ST	226-01	48				
Cupric carbonate as Cu (Elements by ICP HNO₃/ HClO₄ Ashing)	NIOSH 7300			960		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Cyanazine	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49				
Cyanide (as Cn)	OSHA ID 120	5 mg/m³		120		1000		2		ISE	F/CST IT	225-3-01 225-22	100 70	IMP	225-36-2	70	
Cyanides, aerosol & gas	NIOSH 7904	5 mg/m³ (10 min)		120		500		4		ISE	FLT IMP C/HLD	225-17-32 Δ 225-36-2 225-1	106 70 114	CST IT	225-2LF 225-22	113 70	
Cyanogen	OSHA PV2104			12		200		1		GC-NPD	ST	226-117	50				
Cyanuric acid	NIOSH 5030			480		1000		8		HPLC-UV	F/CST	225-802	105	C/HLD	225-1	114	
Cyclohexane	Internal					15.6 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
Cyclohexane	Internal					15.6 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Cyclohexane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	300		2.5-5		10-200		varies		GC-FID	ST	226-01	48				
Cyclohexanol (alcohols combined)	NIOSH 1405	50 (skin)		1-10		10-200		varies		GC-FID	ST	226-01	48				
Cyclohexanol (alcohols III)	NIOSH 1402	50		10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
Cyclohexanone	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Cyclohexanone	Internal					15.6 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or	
Cyclohexanone	Internal					15.6 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Cyclohexanone	OSHA 01	50		10		20(50)		8(3.3)		GC-FID	ST	226-110	50				
Cyclohexanone (Ketones I)	NIOSH 1300	25		10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
Cyclohexanone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC					
Cyclohexene (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	300		5-7		10-200		varies		GC-FID	ST	226-01	48				
Cyclohexylamine	OSHA PV2016			20		200		100 min		GC-FID	ST	226-98	50				
Cyclonite (RDX)	OSHA PV2135	1.5 mg/m³		120		1000				HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114	
Cyhexatin	NIOSH 5504	0.1 mg/m³		500		1500				AA-GF	F/CST C/HLD	225-709 225-1	108 114	ST	226-30	48	
Cypermethrin	OSHA PV2063			60		1000		60 min		GC-ECD	ST	226-30-16	48	TH	224-29V	37	
2,4-D (2,4-dichlorophenoxyacetic acid)	NIOSH 5001	10 mg/m³		180		1000		3		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114	
2,4-D (2-butoxyethyl ester)	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49				
2,4-D (2-butoxyethyl ester)	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49				
2,4-D acid	NIOSH 5602	10		480		1000		8		GC-ECD	ST	226-58	49				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
2,4-D, BE	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49			
2,4-D, EH	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49			
2,4-D, ME (2,4-dichlorophenoxyacetic acid)	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49			
Dacthal	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
DBP (see dibutyl phthalate)	OSHA 104															
p,p-DDE	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
p,p-DDT	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
DDVP (dichlorvos)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Decabromodiphenyl oxide	NIOSH 2559			48-960		2000		varies		HPLC-UV	FLT CST	225-1822 225-2LF	107 113	SP	225-27	115
n-Decane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
n-Decane	Internal					12.2 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96
n-Decane	Internal					12.2 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
n-Decane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500			2		10-50		varies		GC-FID	ST	226-01	48			
DEHP (see di-2-ethylhexyl phthalate)	OSHA 104															
Demeton	NIOSH 5514	0.1 mg/m³		480		1000		8		GC-FPD	FLT CST C/HLD	225-5 225-2LF 225-1	100 113 114	SCN ST	225-26 226-30-05	115 48
DEP (see diethyl phthalate)	OSHA 104															
Desflurane	OSHA 106			3		50		1		GC-FID	ST	226-81A	49			
Di-(2-ethylhexyl) phthalate (DEHP)	NIOSH 5020			180		1000		3		GC-FID	F/CST	225-3-01	100	C/HLD	225-1	114
Di(ethyleneglycol) ethyl ether acrylate	OSHA PV2132	1 mg/m³		48		200		4		GC-FID	ST	226-110	50			
Diacetone alcohol (alcohols combined)	NIOSH 1405	50		1-10		10-200		varies		GC-FID	ST	226-01	48			
Diacetone alcohol (alcohols III)	NIOSH 1402	50		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
Diacetyl	OSHA 1012	0.005	0.025	9	3	50	200	3	15	GC-ECD	ST	226-183	51			
Diallyl disulfide	OSHA PV2086			10		20(50)		8(3.3)		GC-FPD	ST	226-110	50			
1,2-Diaminoethane	NIOSH 2540			10		100		1.7		HPLC-UV	ST	226-30-18	48			
o-Dianisidine	OSHA 71			100	15	1000	1000	100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
o-Dianisidine dyes (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³) -500		1000-3000		varies		HPLC-UV	FLT C/HLD	225-17P 225-1	106 114	CST	225-3LF	113
Diazinon	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54			
Diazinon	OSHA 62			480		1000		8		GC-FPD	ST	226-30-16	48	TH	224-29V	37
Diazinon (Organophosphorus Pesticides)	NIOSH 5600	0.1 mg/m³		240		1000		4		GC-FPD	ST	226-58	49			
Diazomethane	NIOSH 2515	0.2		10		200		50 min		GC-FID	ST	226-23	48			
Dibenz(a,h)anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107
Dibenz(a,h)anthracene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Dibenz(a,h)anthracene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Dibenz[a,h]anthracene (1,2,5,6-dibenzanthracene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49			
Dibromodifluoromethane (difluorodibromomethane)	NIOSH 1012	100		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
1,2-Dibromoethane (ethylene dibromide)	NIOSH 1008	0.045	0.13	24	3	50	200	8	15	GC-ECD	ST	226-01	48			
2-Dibutyl aminoethanol (aminoethanol compounds I)	NIOSH 2007	2		10		20(50)		8(3.3)		GC-FID	ST	226-10-04	48			
Dibutyl phosphate	NIOSH 5017	1	2	240		2000		2		GC-FPD	FLT C/HLD	225-17-01 225-1	106 114	CST	225-2LF	113
Dibutyl phthalate	NIOSH 5020	5 mg/m³		100		1000		100 min		GC-FID	F/CST	225-3-01	100	C/HLD	225-1	114
Dibutyl phthalate (DBP)	OSHA 104	5 mg/m³		240		1000		4		GC-FID	ST	226-56	49			
Dibutyltin bis (isooctyl mercaptoacetate) (organotin compounds as Sn)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114	F/CST	225-709	108
Dibutyltin dilaurate (as Sn)	OSHA ID 218SG			500		1000		500 min		AA	F/CST	225-3-01	100	C/HLD	225-1	114

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Dibutyltin maleate (as Sn)	OSHA ID 224SG			200		1000		200 min		AA-GF	F/CST	225-3-01	100	C/HLD	225-1	114
2,2-Dichloro-1,1,1-trifluoroethane	NON 50			9		50		3		GC-FID	ST	226-09	48			
1,1-Dichloro-1-fluoroethane	OSHA 113			1		50		20 min		GC-FID	ST	NA SKC				
1,1-Dichloro-1-nitroethane	NIOSH 1601	2		1.5-15		10-1000				GC-FID	ST	226-81A	49			
1,2-Dichlorobenzene	Internal					12.5 ml/min		8-24 hrs		TD, GC	PS	690-101 690-104	or 96	PS	690-103	96
1,2-Dichlorobenzene	Internal					12.5 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
m-Dichlorobenzene	NIOSH 1003				3	10-200				GC-FID	ST	226-01	48			
o-Dichlorobenzene (hydrocarbons, halogenated)	NIOSH 1003	50			3	10-200		varies		GC-FID	ST	226-01	48			
p-Dichlorobenzene (hydrocarbons, halogenated)	NIOSH 1003	1.7 (LOQ)		3		10-200		varies		GC-FID	ST	226-01	48			
3,3'-Dichlorobenzidine	OSHA 65			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
Dichlorodifluoromethane	NIOSH 1018	1000		3		20		2.5		GC-FID	ST	226-01	48	ST	226-09	48
1,2-Dichloroethane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
1,2-Dichloroethane	Internal					14.2 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
1,2-Dichloroethane	Internal					14.2 ml/min		1-7 days		SE, GC	PS	690-105	96			
1,1-Dichloroethane (Hydrocarbons, Halogenated)	NIOSH 1003	100		10		10-200		varies		GC-FID	ST	226-01	48			
Dichloroethyl ether	NIOSH 1004	5	10	10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
1,2-Dichloroethylene (hydrocarbons, halogenated)	NIOSH 1003	200		3		10-200		varies		GC-FID	ST	226-01	48			
Dichlorofluoromethane	NIOSH 2516	10		3		20		2.5		GC-FID	ST	226-25	48			
Dichloromethane (methylene chloride)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Dichloromethane (methylene chloride)	Internal					14.7 ml/min		8 hrs-3 days		SE, GC	PS	690-105	96			
Dichloromethane (methylene chloride)	Internal					0.54 ml/min		1-7 days		SE, GC	PS	690-105	with	RR	690-300	96
Dichloromethane (see methylene chloride)																
Dichloromonofluoromethane (dichlorofluoromethane)	NIOSH 2516	10		3		20		2		GC-FID	ST	226-09 ♣	48			
2,4-Dichlorophenoxyacetic acid (2,4-D)	NIOSH 5001	10 mg/m³		180		1000		3		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114
1,2-Dichloropropane (propylene dichloride)	Internal					14.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
1,2-Dichloropropane (propylene dichloride)	Internal					14.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
1,2-Dichloropropane (propylene dichloride)	NIOSH 1013	LFC		3		20		2.5		GC-ECN	ST	226-81A	49			
cis-1,3-Dichloropropene	Internal					13.6 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
cis-1,3-Dichloropropene	Internal					13.6 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
trans-1,3-Dichloropropene	Internal					14.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96
trans-1,3-Dichloropropene	Internal					14.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
2,2-Dichloropropionic acid	OSHA PV2017			10		200		50 min		HPLC-UV	ST	226-10	48			
1,2-Dichlorotetrafluoroethane (dichlorodifluoromethane)	NIOSH 1018	1000		3		20		2.5		GC-FID	ST	226-01	48	ST	226-09	48
Dichlorotrifluoroethane	NON 50			9		50		3		GC-FID	ST	226-09	48			
Dichlorvos (DDVP)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Dichlorvos (DDVP)	OSHA 62	1 mg/m³		480		1000		8		GC-FPD	ST	226-30-16	48			
Dicloran	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Dicofol	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Dicrotophos	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54			
Dicrotophos (Bidrin)	OSHA PV2099			480		1000		8		GC-FPD	ST	226-30-16	48			
Dicrotophos (Organophosphorus Pesticides)	NIOSH 5600	0.25 mg/m³		240		1000		4		GC-FPD	ST	226-58	49			
Dicyclopentadiene	OSHA PV2098			10		100		100 min		GC-FID	ST	226-01	48			
Dieldrin	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Diesel emissions (see elemental carbon)	NIOSH 5040									TOA-FID						
Diesel exhaust particles (see elemental carbon)	NIOSH 5040									TOA-FID						

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Diesel particulate matter	ASTM D 6877			varies		1000-4000		varies		EGA-TOS	DPM	225-317	or	F/CST	225-401	107	
Diesel particulate matter	MSHA 30CFR57	350 µg/m³ (total carbon)		varies		2000		varies		TOA-FID	DPM C/HLD	225-317 225-1	107 114	CYC	225-105	124	
Diesel particulate matter	MSHA 30CFR57	350 µg/m³ (total carbon)		varies		varies		varies		TOA-FID	F/CST C/HLD	225-401 225-1	107 114	CYC	225-100	124	
Diethanolamine	OSHA PV2018			10		100		100 min		HPLC-UV	ST	226-30-18	48				
Diethanolamine (DEA) (Aminoethanol Compounds II)	NIOSH 3509	3		240		1000		4		IC	IMP	225-36-1	70	IT	225-22	70	
Diethyl ether (ethyl ether)	NIOSH 1610			0.25-3		10-200		varies		GC-FID	ST	226-01	48				
Diethyl ketone (3-pentanone)	OSHA PV2136			10		100		100		GC-FID	ST	NA SKC					
Diethyl phthalate (DEP)	OSHA 104			240		1000		4		GC-FID	ST	226-56	49				
Diethylamine	OSHA 41	25		10	3	200	200	50 min	15	HPLC	ST	226-96	50				
Diethylamine (amines, aliphatic)	NIOSH 2010	10	25	24	3	50	200	8	15	GC-FID	ST	226-10	48				
2-Diethylaminoethanol (aminoethanol compounds I)	NIOSH 2007	10		10		20(50)		8(3.3)		GC-FID	ST	226-10-04	48				
Diethylene dioxide (see dioxane)																	
Diethylene ether (see dioxane)																	
Diethylene glycol (glycols)	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49				
Diethylenetriamine	OSHA 60			10		100		100 min		HPLC-UV	ST	226-30-18	48				
Difluorodibromomethane	NIOSH 1012	100		6		50		2		GC-FID	ST	226-01	48				
Diglycidyl ether of bisphenol A	OSHA 1018			240		1000		240 (min)		HPLC-UV/ PDA	F/CST	225-709	108	C/HLD	225-1	114	
Dihexyl phthalate	OSHA PV2076			240		1000		4		GC-FID	ST	226-56	49				
Dihydrocapsaicin	NIOSH 5041			480	15	1000	1000	8	15	HPLC-FD	FLT	225-16	108	CST	225-32	114	
Diisobutyl ketone	Internal					10.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
Diisobutyl ketone	Internal					10.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Diisobutyl ketone (Ketones I)	NIOSH 1300	25		10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
Diisobutyl ketone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC					
Dimethazone	OSHA PV2066			60		1000		1		GC-ECD	ST	226-30-16	48				
Dimethoate	OSHA PV2113			480		1000		8		GC-FPD	ST	226-30-16	48				
Dimethoxymethane (methylal)	NIOSH 1611	1000		2		20		1.5		GC-FID	ST	226-01	48				
Dimethyl adipate	OSHA PV2019			20		200		100 min		GC-FID	ST	226-01	48				
Dimethyl amine		10				18		8 hrs		HPLC-UV	PS	500-400	92				
Dimethyl arsenic acid (arsenic, organo-)	NIOSH 5022			960		2000		8		IC-AA	FLT C/HLD	225-17-01 225-1	106 114	CST	225-2LF	113	
Dimethyl disulfide	NON 42			12		1000		12 min		GC-FPD	SB SB	253-10 231-10	or 60	SB	263-10	or	
Dimethyl glutarate	OSHA PV2020			20		200		100 min		GC-FID	ST	226-01	48				
Dimethyl phthalate (DMP)	OSHA 104	5 mg/m³		240		1000		4		GC-FID	ST	226-56	49				
Dimethyl succinate	OSHA PV2021			20		200		100 min		GC-FID	ST	226-01	48				
Dimethyl sulfate	NIOSH 2524	0.1 (8 hrs)		12		50		4		GC-ECN	ST	226-114	50				
Dimethyl sulfate	OSHA PV2147	1		10		100		100 min		GC-FPD	ST	226-115	50				
Dimethyl sulfide	NON 42			12		1000		12 min		GC-FPD	SB	263-10	or	SB	231-10	60	
2,3-Dimethyl-2,3-dinitrobutane	NON 44	0.15 mg/m³ OEL		10		200		50 min		GC-ECD	ST	226-35-03	48				
Dimethylacetamide	NIOSH 2004	10		80		1000		8		GC-FID	ST	226-10	48				
Dimethylamine	NIOSH 2010	10		24		50		8		GC-FID	ST	226-10	48				
Dimethylamine	OSHA 34	10		10		20		8		HPLC	ST	226-96	50				
2-Dimethylamino ethanol	NIOSH 2561			10-24		20-100		varies		GC-FID	ST	226-94	50				
1-Dimethylamino-2-propanol	NIOSH 2561			10-24		20-100		varies		GC-FID	ST	226-94	50				
2,4-Dimethylaminobenzene (Amines, Aromatic)	NIOSH 2002	2		3-20		20-200		15 min-8 hrs		GC-FID or GC-NSD	ST	226-10	48				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates					
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time							
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number				
N,N-Dimethylaniline	OSHA PV2064	5		30		200		2.5		GC-FID	ST	226-98	50		
N,N-Dimethylaniline (Amines, Aromatic)	NIOSH 2002	5	10	30	3	20-1000		8	15	GC-FID or GC-NSD	ST	226-10	48		
2,5-Dimethylbenzaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or ST	226-119 50	
N,N-Dimethylethanolamine	NIOSH 2561			10-24		20-100		varies		GC-FID	ST	226-94	50		
N,N-Dimethylformamide	NIOSH 2004	10		24		50		8		GC-FID	ST	226-10	48		
N,N-Dimethylformamide	OSHA 66	10		9.6	3	20	200	8	15	GC-NPD	ST	226-01	48		
1,1-Dimethylhydrazine	NIOSH 3515	0.06 (120 min)		60		1000		1		VAS	IMP	225-36-2	70 IT	225-22 70	
N,N-Dimethyl-p-toluidine (Amines, Aromatic)	NIOSH 2002			Not determined		20-1000		Not determined		GC-FID or GC-NSD	ST	226-10	48		
Dimethyltin dichloride	NIOSH 5526	0.1 mg/m³		15-75		250-1000		0.25-5 hrs		GC-FPD	ST	226-30-16	48		
Di-n-hexyl phthalate	OSHA PV2076			240		1000		4		GC-FID	ST	226-56	49		
Dinitrotoluene (DNT)	OSHA 44	1.5 mg/m³		60		1000		1		GC-TEA	ST	226-56	49		
Di-n-octyl phthalate (DNOP)	OSHA 104			240		1000		4		GC-FID	ST	226-56	49		
n-Dioctyl phthalate (DNOP)	OSHA 104			240		1000		4		GC-FID	ST	226-56	49		
Dioxane (diethylene dioxide)	NIOSH 1602	1 (30 min)		10		20(50)		8(3.3)		GC-FID	ST	226-01	48		
Dioxin (including, PHDDs, PCDDs, PBDDs)	EPA TO-9A			325-400 m³		200-280 L/min		24 hrs		HRGC-HRMS	PUF	226-131	55 FLT	225-1808 107	
Diphenyl	NIOSH 2530	0.2		30		100		5		GC-FID	ST	226-35-01	48		
Diphenyl ether	OSHA PV2022	0.2		20		200		100 min		GC-FID	ST	226-95	50		
Diphenylamine	OSHA 78			100		1000		100 min		HPLC-UV	CF/CST	225-9004	68 C/HLD	225-1 114	
Diphenylmethane-4,4'-diisocyanate (4,4-methylene bisphenyl isocyanate) (isocyanates)	NIOSH 5521	50 µg/m³	200 µg/m³ (10 min) C	480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70 IT	225-22 70	
Dipropyl disulfide	OSHA PV2086			10		20(50)		8(3.3)		GC-FPD	ST	226-110	50		
Dipropylene glycol methyl ether	OSHA 101	100		10		100		100 min		GC-FID	ST	226-01	48		
Dipropylene glycol methyl ether (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A	49		
Dipropylene glycol monomethyl ether (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A	49		
Direct black 38 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Direct blue 6 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Direct blue 8 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Direct brown 95 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Direct red 2 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Direct red 28 (dyes, benzidine)	NIOSH 5013	LFC		150(@0.1mg/m³)-500		1000-3000		varies		HPLC	FLT C/HLD	225-17P 225-1	106 CST	225-3LF 113	
Di-sec-octyl phthalate (see di-[2-ethylhexyl] phthalate)															
Disulfoton	OSHA PV2105			480		1000		8		GC-FPD	ST	226-30-16	48		
Disulfoton (Organophosphorus Pesticides)	NIOSH 5600	0.1 mg/m³		240		1000		4		GC-FPD	ST	226-58	49		
Diuron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54		
Diuron (Organonitrogen Pesticides)	NIOSH 5601	10 mg/m³		240		1000		4		HPLC-UV	ST	226-58	or ST	226-30-16 48	
Divinyl benzene	OSHA 89			12		50		4		GC-FID	ST	226-73	49		
DMP (see dimethyl phthalate)	OSHA 104														
DNOP (see di-n-octyl phthalate)	OSHA 104														
DNT (dinitrotoluene)	OSHA 44	1.5 mg/m³		60		1000		1		GC-TEA	ST	226-56	49		
n-Dodecane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 TH	224-26-02 37	
Dursban (chlorpyrifos)(organophosphorus pesticides)	NIOSH 5600	0.2 mg/m³	0.6 mg/m³	240		1000		4		GC-FPD	ST	226-58	49		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Dust (particulates, total)	NIOSH 0500			133		2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Dust, inorganic				15-150		15,000		1-10 min		varies	STC	225-9820	112			
Dust, respirable	OSHA PV2121	5.0 mg/m³		varies		varies		varies		GR	FLT CYC	225-803 225-105	105 124	C/HLD	225-1	114
Dust, respirable (particulates)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Dust, respirable (in workplace atmospheres)	ASTM D 4532			varies		2500		varies		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Dust, total	OSHA PV2121	15 mg/m³		720		1500		8		GR	FLT	225-802	105	C/HLD	225-1	114
Dust, total nuisance (particulates)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Dust, total, particulates not otherwise regulated	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Dyes, benzidine, o-tolidine, o-dianisidine	NIOSH 5013	LFC		150(@0.1mg/m³) -500		1000-3000		varies		HPLC-UV	FLT C/HLD	225-17P 225-1	106 114	CST	225-3LF	113
Elemental carbon (diesel exhaust)	MSHA			varies		varies		varies		EGA-TOS	DPM	225-317	107	CYC	225-105	124
Elemental carbon (diesel exhaust)	NIOSH 5040			varies		varies		varies		TOA-FID	F/CST C/HLD	225-401 225-1	107 114	CYC	225-100	124
Elements by Cellulosic Internal Capsule Sampler (see specific element)	NIOSH 7306	Varies		Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Elements by ICP Aqua Regia ashing (see specific element)	NIOSH 7301	varies		varies		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105
Elements by ICP HNO₃ digestion (see specific element)	NIOSH 7303	varies		varies		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Elements by ICP HNO₃/HClO₄ ashing (see specific element)	NIOSH 7300	varies		varies		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Elements on wipes (see specific element)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170
Emery (corundum) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Emery (corundum) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Endosulfan (thiodan)	OSHA PV2023			60		1000		1		GC-ECD	ST	226-30-16	48			
Endotoxins (bacteria in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A ◊	136
Endrin	NIOSH 5519	0.1 mg/m³		240		1000		4		GC-ECD	CST SCN C/HLD	225-2LF 225-26 225-1	113 115 114	FLT ST	225-5 NA SKC	100
Enflurane (ethrane)	OSHA 103			12		50		4		GC-FID	ST	226-81A	49			
Enflurane (ethrane)	OSHA 29			10		20		8		GC-FID	ST	226-01	48			
Environmental tobacco smoke (nicotine & 3-ethenylpyridine)	NON 49			90-720		1500		1-8		GC-NSD	ST	226-170	51			
Environmental tobacco smoke (respirable particles)	ASTM D 5955			varies		varies		varies		GR & HPLC-UV & HPLC-FD	FLT CYC	225-17-32 225-01-02	106 125	C/HLD CST	225-1 225-3LF	114 113
Environmental tobacco smoke (solanesol, respirable particles)	ASTM D 6271			150-3600		2500		1-24		HPLC-UV	FLT CYC	225-17-32 225-01-02	106 125	CST C/HLD	225-3LF 225-1	113 114
Epichlorohydrin	NIOSH 1010	LFC		10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48			
EPN	NIOSH 5012	0.5 mg/m³		480		1000		8		GC-FPD	F/CST	225-709	108	C/HLD	225-1	114
1,2-Epoxypropane (see propylene oxide)																
tris(2,3-epoxypropyl)isocyanurate	OSHA 1024			180		1000		3		GC-FID	FLT SP	225-7 225-27	108 115	CST C/HLD	225-2LF 225-1	113 114
2,4,D-Esters	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Esters I (see specific compounds)	NIOSH 1450	varies		1-10		varies		varies		GC-FID	ST	226-01	48			
Estradiol	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
Estriol	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
Estrone	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
1,2-Ethanediol (ethylene glycol) (glycols)	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49			
1,2-Ethanediol dinitrate	OSHA 43	0.2 (C)		15		1000		15		HPLC-TEA	ST	226-35-03	48			
Ethanol (ethyl alcohol)	OSHA 5001	1000		12		50		4			ST	226-82	50			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Ethanol (ethyl alcohol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Ethanol (ethyl alcohol)	Internal					20.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Ethanolamine	OSHA PV2111	3		10	1.5	100	100	100 min	15	HPLC-UV	ST	226-30-18	48			
3-Ethenylpyridine	NON 49			90-720		1500		1-8		GC-NSD	ST	226-170	51			
3-Ethenylpyridine & nicotine	ASTM D 5075			90-2160		1500		1-24		GC-NPD	ST	226-93	50			
Ethion (Organophosphorus Pesticides)	NIOSH 5600	0.4 mg/m³		240		1000		4		GC-FPD	ST	226-58	49			
Ethoprop (Organophosphorus Pesticides)	NIOSH 5600			240		1000		4		GC-FPD	ST	226-58	49			
2-Ethoxyethanol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Ethoxyethanol (alcohols IV)	NIOSH 1403	0.5 (skin)		1-6		10-50		varies		GC-FID	ST	226-01	48			
2-Ethoxyethanol (CELLOSOLVE solvent) (alcohols IV)	NIOSH 1403	0.5 (skin)		1-6		10-50		varies		GC-FID	ST	226-01	48			
2-Ethoxyethyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Ethoxyethyl acetate (Esters I)	NIOSH 1450	0.5 (skin)		1-10		10-200		varies		GC-FID	ST	226-01	48			
Ethrane (enflurane)	OSHA 29			10		100		1.6		GC-FID	ST	226-01	48			
Ethyl 2-cyanoacrylate	OSHA 55			12		100		2		HPLC-UV	ST	226-98	50			
Ethyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Ethyl acetate	Internal					13.1 ml/min		8-24 hrs		TD, GC	PS	690-101	or PS 690-103	96		
Ethyl acetate	Internal					13.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Ethyl acetate	NIOSH 1457	400		10		20		8		GC-FID	ST	226-01	48			
Ethyl acrylate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Ethyl acrylate	Internal					13.7 ml/min		8-24 hrs		TD, GC	PS	690-101	or PS 690-103	96		
Ethyl acrylate	Internal					13.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Ethyl acrylate	NON 54	5	15	10	3	20	200	8	15	GC-FID	ST	226-81A	49			
Ethyl acrylate	OSHA 92	25		12	0.75	50	50	4	15	GC-FID	ST	226-73	49			
Ethyl acrylate (Esters I)	NIOSH 1450	4 (LOQ)		1-10		10-200		varies		GC-FID	ST	226-01	48			
Ethyl alcohol (ethanol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Ethyl alcohol (ethanol)	Internal					20.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Ethyl alcohol (ethanol)	OSHA 5001	1000		12		50		4		GC-FID	ST	226-82	50			
Ethyl alcohol (ethanol) (Alcohols I)	NIOSH 1400	1000		1		50		20 min		GC-FID	ST	226-01	48			
Ethyl amyl ketone	NIOSH 1301	50		25		200		2		GC-FID	ST	226-01	48			
Ethyl benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Ethyl benzene	Internal					0.41 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with PS 690-300	96		
Ethyl benzene	Internal					12.9 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96 PS 690-103	or		
Ethyl benzene	Internal					12.9 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
Ethyl benzene	OSHA 1002	100				13.83		8		GC-FID	PS	575-002	82			
Ethyl benzene	OSHA 1002	100		12		50		4		GC-FID	ST	226-01	48			
Ethyl benzene (Hydrocarbons, Aromatic)	NIOSH 1501	100	125	1-24	1-24	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
Ethyl bromide (bromoethane)	NIOSH 1011			4		20		3.3		GC-FID	ST	226-01	48			
Ethyl butyl ketone (3-heptanone) (Ketones II)	NIOSH 2553	50		1-25		10-200		varies		GC-FID	ST	NA SKC				
Ethyl butyl ketone (3-heptanone) (Ketones II)	NIOSH 1301	50		24		200		2		GC-FID	ST	226-01	48			
Ethyl chloride	NIOSH 2519			3		50		1		GC-FID	ST	226-25	48			
Ethyl ether (ethyl ether)	NIOSH 1610			0.25-3		10-200		varies		GC-FID	ST	226-01	48			
Ethyl formate	NIOSH 1452	100		10		20		8		GC-FID	ST	226-01	48			
Ethyl lactate	OSHA PV2081			10		200		50 min		GC-FID	ST	226-01	48			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Ethyl mercaptan (mercaptans)	NIOSH 2542	0.5 (15 min)		48	12	100	200	8	60	GC-FPD	CF/CST	225-9007	68	C/HLD	225-1	114	
Ethyl methacrylate	Internal					13.1 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
Ethyl methacrylate	Internal					13.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Ethyl methacrylate	NIOSH 2537			1-8		10-50		varies		GC-FID	ST	226-30-06	48				
Ethyl methacrylate	OSHA PV2100			10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
Ethyl O-(p-nitrophenyl) phenylphosphonothionate (EPN)	NIOSH 5012	0.5 mg/m³		480		1000		8		GC-FPD	F/CST	225-709	108	C/HLD	225-1	114	
Ethyl parathion	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54				
Ethyl silicate	NIOSH S-264	100		9		50		3		GC-FID	ST	226-30-04	48				
2-Ethyl toluene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
3-Ethyl toluene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
4-Ethyl toluene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Ethyl vinyl benzene	OSHA 89			12		50		4		GC-FID	ST	226-73	49				
Ethyl-3-ethoxypropionate	OSHA PV2025			10		100		100 min		GC-FID	ST	226-01	48				
Ethylamine	OSHA 36	10		10		200		50 min		HPLC-UV	ST	226-96	50				
Ethylene chlorohydrin	NIOSH 2513	1		10		3		20(50) 200		8(3.3) 15	GC-FID	ST	226-81A	49			
Ethylene dibromide (1,2-dibromoethane)	NIOSH 1008	0.045	0.13 (15 min)	10		3		20(50) 200		8(3.3) 15	GC-ECD	ST	226-01	48			
Ethylene dibromide (1,2-dibromoethane)	OSHA 02	20	30	10		1		20(50) 200		8(3.3) 5	GC-ECD	ST	226-01	48			
Ethylene dichloride	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Ethylene dichloride (1,2-dichloroethane)	OSHA 03	50	100	10		3		200 200		1 15	GC-ECD	ST	226-01GWS	48			
Ethylene dichloride (1,2-dichloroethane) (hydrocarbons, halogenated)	NIOSH 1003	1	2	3		3		10-200 10-200		varies varies	GC-FID	ST	226-01	48			
Ethylene glycol (glycols)	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49				
Ethylene glycol dinitrate	OSHA 43	0.2 (C)		15		1000		15		HPLC-TEA	ST	226-35-03	48				
Ethylene glycol dinitrate (nitroglycerine)	NIOSH 2507	0.1 mg/m³		15		1000		15		GC-ECD	ST	226-35-03	48				
Ethylene oxide	ASTM D 4413			6		3		100 200		1 15	GC-FID	ST	226-16	or	ST	226-36	49
Ethylene oxide	ASTM D 5578			9.6		1.5		20 100		8 15	GC-ECD	ST	226-178	51			
Ethylene oxide	NIOSH 1614	0.1	5 (10 min)	24		1.5		100 150		4 10	GC-ECD	ST	226-178	51			
Ethylene oxide	OSHA 1010	1	5.0 EL	12		0.75		50 50		4 15	GC-ECD	ST	226-178	51			
Ethylene oxide (by portable GC)	NIOSH 3702	0.1	5 (10 min)	varies		varies		20-4000 varies		varies varies	P GC-PID	SB	232 Series	61			
Ethylene oxide (Qazi-Ketcham)	NON 14			10		20(50)		8(3.3)		GC	ST	226-36	49				
Ethylene thiourea	NIOSH 5011	LFC		480		2000		4		VAS	F/CST	225-802	105	C/HLD	225-1	114	
Ethylene thiourea	OSHA 95			480		2000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114	
Ethylenediamine	NIOSH 2540	10		10		100		1.7		HPLC-UV	ST	226-30-18	48				
Ethylenediamine	OSHA 60	10		10		100		100 min		HPLC-UV	ST	226-30-18	48				
Ethylenimine	NIOSH 3514			48		200		4		HPLC-UV	IMP	225-36-2	70	IT	225-22	70	
2-Ethylhexyl acrylate	OSHA PV2026			12		100		2		GC-FID	ST	226-73	49				
di-2-Ethylhexyl phthalate (DEHP)	OSHA 104	5 mg/m³		240		1000		4		GC-FID	ST	226-56	49				
ETS (see environmental tobacco smoke)	NON 49																
Fenamiphos (Organophosphorus Pesticides)	NIOSH 5600	0.1 mg/m³		240		1000		4		GC-FPD	ST	226-58	49				
Fenvalerate	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				
Ferrovandium dust	OSHA ID 125G	1 mg/m³		480		30		2000 2000		4 15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105
Fibers (bioaerosols)				15-150		15000		1-10 min		varies	STC	225-9820	112				
Fibers (see specific compounds)																	
Fibrous glass (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Fibrous glass (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Fibrous glass dust	OSHA ID 160	15 mg/m³	1 fbr/cc EL	60-300	48	500-2500	1600	120		PCM	FLT/CL	225-321	102				
Fluometuron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				
Fluoranthene (benzo[<i>jk</i>]fluorene; 1,2-benzacenaphthene; Idryl) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Fluoranthene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Fluoranthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Fluoranthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Fluorene (o-biphenylenemethane; 2,2'-methylenebiphenyl; 9H-fluorene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Fluorene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Fluorene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Fluorene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Fluoride (particulate)	NIOSH 7906	2.5 mg/m³		960		2000		8		IC-CD	CF/CST	225-9031	68	C/HLD	225-1	114	
Fluorides	ASTM D 4765			varies		2000		varies		ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Fluorides (aerosol & gas by ISE)	NIOSH 7902	2.5 mg/m³	6 (HF)	480	22.5	1000	1500	8	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Fluorides (as F)	OSHA ID 110	2.5 mg/m³		90	22.5	1500	1500	1	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Fluorine	OSHA ID 110	0.1		480		1000				ISE	IMP	225-36-2	70	IT	225-22	70	
Fluorotrichloromethane (trichlorofluoromethane)	NIOSH 1006		1000		5		20		240	GC-FID	ST	226-09	48				
Folpet	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Fonofos (Dylfonate)	OSHA PV2027			480		1000		8		GC-FPD	ST	226-30-16	48				
Fonofos (Organophosphorus Pesticides)	NIOSH 5600	0.1 mg/m³		240		1000		4		GC-FPD	ST	226-58	49				
Formaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50	
Formaldehyde	EPA IP-6A					100-1000 ml/min		5 min-24 hrs		HPLC-UV	ST	226-119	or	ST	226-120	50	
Formaldehyde	EPA IP-6C					20.4 ml/min		7 days		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA IP-6C					20.4 ml/min		1-7 days		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA IP-6C					28.6 ml/min		15 min-8 hrs		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA TO-11A					28.6 ml/min		15 min-8 hrs		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA TO-11A					20.4 ml/min		7 days		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA TO-11A					28.6 ml/min		15 min-24 hrs		HPLC-UV	PS	500-100	92				
Formaldehyde	EPA TO-11A			varies		100-2000 ml/min		varies		HPLC-UV	ST	226-119	or	ST	226-120	50	
Formaldehyde	NIOSH 2016	0.016	0.1 (C)	1<15	1<15	30-500	30-500	varies	varies	HPLC-UV	ST	226-119 ♣	50				
Formaldehyde	NIOSH 2541	0.016	0.1 (C)	24	1	100	100	4	10	GC-FID	ST	226-118	50				
Formaldehyde	NIOSH 3500	0.016	0.1	96	15	200	1000	8	15	VAS	IMP FLT SCN	225-36-1 225-1709 ** 225-26	70 106 115	IT CST	225-22 225-2LF	70 113	
Formaldehyde	OSHA 1007	0.75	2	13.8	0.43	29.77	29.77	4	15	HPLC-UV	PS	500-100	92				
Formaldehyde	OSHA 52	0.75	2	24	3	100	200	4	15	GC-NPD	ST	226-117	or	ST	226-54	49	
Formaldehyde (Aldehydes, Screening)	NIOSH 2539	0.016	0.1	5		20		4		GC-FID & GC-MS	ST	226-118	50				
Formaldehyde on dust (textile or wood)	NIOSH 5700	0.016	0.1	240		2000		4		HPLC-UV	IOM	225-70A	120	FLT	225-5-25	105	
Formetanate (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48	
Formic acid	NIOSH 2011	5		24		200		2		IC-CD	FLT ST	225-1728A 226-10-03	106 48	CST C/HLD	225-3-25LF 225-1	113 114	
Formic Acid	NON 61	5				17.7		see method		ICP-AES	PS	500-200	93				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Freon 113	OSHA 113	1000		1		50		20 min		GC-FID	ST	NA SKC				
Freon 123	NON 50			9		50		3		GC-FID	ST	226-09	48			
Freon 141b	OSHA 113	1000		1		50		20 min		GC-FID	ST	NA SKC				
Fungi	NIOSH 0800			varies		28,300		varies		varies	BI	225-9611	134			
Fungi (in air)				15-150		15000		1-10 min		varies	STC	225-9820	112			
Fungi (in air) (BioSampler method)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A	136
Furans (including PHDFs, PCDFs, PBDFs)	EPA TO-9A					200-280 L/min		24 hrs		HRGC-HRMS	PUF	226-131	55	FLT	225-1808	107
Furfural	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Furfural	NIOSH 2529			5		20		4		GC-FID	ST	226-118	50			
Furfural	OSHA 72	5		180		1000		3		GC-FID	ST	226-81A	49			
Furfural (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50			
Furfuryl alcohol	NIOSH 2505	10	15	5		20		4		GC-FID	ST	226-115	50			
Gallium (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			1-3,300		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Gasoline	OSHA PV2028			10	1.5	20(50)	100	8(3.3)	15	GC-FID	ST	226-01	48			
Glass, fibrous (<i>see asbestos fibers</i>)	NIOSH 7400															
Glutaraldehyde	NIOSH 2531		0.2		4	200		20		HPLC-UV	ST	226-118	50			
Glutaraldehyde	NIOSH 2532		0.2		3	200		15		HPLC-UV	ST	226-119	50			
Glutaraldehyde	NON 43			30	15	250	1000	2	15	GC-FID	ST	226-10	48			
Glutaraldehyde	OSHA 64			15		1000		15		HPLC-UV	CF/CST	225-9003	68	C/HLD	225-1	114
Glycerin mist (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Glycidol (2,3-epoxy-1-propanol)	NIOSH 1608	25		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
Glycol chlorohydrin (<i>see ethylene chlorohydrin</i>)																
Glycol ethers	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A	49			
Glycols	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49			
Glyphosate	OSHA PV2067			100		1000		100 min		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
Gold	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or or 100
Gold (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			1-3,300		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Graphite (natural) (<i>see Respirable dust</i>)	OSHA ID 142 (v4)															
Graphite (synthetic) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Graphite (synthetic) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Grunerite fibers (<i>see asbestos</i>)	OSHA ID 160															
Gypsum (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Gypsum (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Hafnium	OSHA ID 121	0.5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or or 100
Halothane	OSHA 103			12		50		4		GC-FID	ST	226-81A	49			
Halothane	OSHA 29			9		100		1.5		GC-FID	ST	226-01	48			
HDI (<i>see hexamethylene diisocyanate</i>)																
Heptachlor	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Heptachlor	OSHA PV2029	0.5 mg/m³		60		1000		1		GC-ECD	ST	226-30-16	48			
Heptachlor (non-occupational exposure)	ASTM D 4947			240-7200	250	1000-5000		4-24		GC-ECD	PUF	226-92	54			
Heptachlor epoxide	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Heptanal (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
n-Heptane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
n-Heptane	Internal					13.9 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
n-Heptane	Internal					13.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
3-Heptanone (ethyl butyl ketone) (Ketones II)	NIOSH 2553	50		1-25		10-200		varies		GC-FID	ST	NA SKC					
2-Heptanone (methyl n-amyl ketone) (Ketones II)	NIOSH 2553	100		1-25		10-200		varies		GC-FID	ST	NA SKC					
Hexachloro-1,3-cyclopentadiene	NIOSH 2518	0.01		24		50		8		GC-ECD	ST	226-116	50				
Hexachlorobenzene	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Hexachlorobutadiene	NIOSH 2543	0.02		48		100		8		GC-ECD	ST	226-30-04	48				
Hexachlorocyclopentadiene	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-124	54				
Hexachlorocyclopentadiene (hexachloro-1,3-cyclopentadiene)	NIOSH 2518	0.01		48		100		8		GC-ECD	ST	226-116	50				
Hexachloroethane (hydrocarbons, halogenated)	NIOSH 1003	1		10		10-200		varies		GC-FID	ST	226-01	48				
Hexamethylene diisocyanate	NIOSH 5522	35 µg/m³	140 µg/m³	360	20	1000	2000	6	10	HPLC-FD	IMP	225-36-1	70	IT	225-22	70	
1,6-Hexamethylene diisocyanate	OSHA 5002			15		1000		15 min		HPLC-UV or HPLC-FD	CF/CST CF/CST	225-9002 225-9022 ▼	or 68	CF/CST C/HLD	225-9013 225-1	or 114	
1,6-Hexamethylene diisocyanate homopolymer	OSHA 5002			15		1000		15 min		HPLC-UV or HPLC-FD	CF/CST CF/CST	225-9002 225-9022 ▼	or 68	CF/CST C/HLD	225-9013 225-1	or 114	
Hexamethylene diisocyanate (gaseous)	ASTM D 6562			15		1000		15 min		HPLC-UV or HPLC-FD	CF/CST C/HLD	225-9023 225-1	or 114	CF/CST	225-9022 ▼	68	
Hexamethylene diisocyanate (HDI) (isocyanates)	OR-OSHA 1010	0.02	0.02	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70	
Hexamethylene diisocyanate (isocyanates)	NIOSH 5521	35 µg/m³	140 µg/m³ (10 min) (C)	480	10	1000	1000	8	10	HPLC-ELCHIM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70	
1,6-Hexamethylene diisocyanate (isocyanates, total)	NIOSH 5525	35 µg/m³	140 µg/m³ (10 min) (C)	1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 225-27 225-702	108 or 108	CST IOM	225-4 225-76A	113 120	
Hexamethylene diisocyanate (monomeric aerosol)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST C/HLD	225-9023 225-1	or 114	CF/CST	225-9022 ▼	68	
Hexamethylene diisocyanate (monomeric gaseous)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST C/HLD	225-9023 225-1	or 114	CF/CST	225-9022 ▼	68	
Hexamethylene diisocyanate (oligomeric aerosol)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST C/HLD	225-9023 225-1	or 114	CF/CST	225-9022 ▼	68	
Hexamethylene diisocyanate biuret (HDI-BT) (isocyanates)	OR-OSHA 1010	1.0 mg/m³	0.5 mg/m³	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70	
Hexamethylene diisocyanate isocyanurate (HDI-IC) (isocyanates)	OR-OSHA 1010	1.0 mg/m³	0.5 mg/m³	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70	
Hexamethylenetetramine	NON 52			15		1000		15 min		GC-NPD or GC-FID	ST	226-57	49				
Hexanal	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120	or	ST	226-119	50	
Hexanal (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50				
n-Hexane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
n-Hexane	Internal					14.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
n-Hexane	Internal					14.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
n-Hexane	NIOSH 1500	50		4		200		20 (min)		GC-FID	ST	226-01	48				
n-Hexane	OSHA 5000	500		4.9		50		1.63		GC-FID	ST	226-01	48				
1,6-Hexanediol	NIOSH 1500			5	3	200	200			GC-FID	ST	226-01	48				
Hexanediol diacrylate	NON 39			480		1000		8		GC-FID	ST	226-56	49				
1,6-Hexanediol diacrylate	OSHA PV2133	1 mg/m³		48		200		4		GC-FID	ST	226-110	50				
2-Hexanone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC					
2-Hexanone (methyl butyl ketone) (Ketones I)	NIOSH 1300	1		10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
2-Hexanone (methyl butyl ketone, MBK)	Internal					14.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
2-Hexanone (methyl butyl ketone, MBK)	Internal					14.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Hexavalent chromium	ASTM D 6832			varies		1000-5000		varies		IC	F/CST F/CST	225-802 225-709	or or	F/CST F/CST	225-1713 225-401	or 107	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Hexavalent chromium	NIOSH 7600	1 µg/m³ (10 hrs)		240		1000		4		VAS	F/CST	225-802	105	C/HLD	225-1	114	
Hexavalent chromium	NIOSH 7604	1 µg/m³ (10 hrs)		240		1000		4		IC-CD	F/CST	225-802	105	C/HLD	225-1	114	
Hexavalent chromium	NIOSH 7605	0.001 mg/m³ (10 hrs)		1-400		1000-4000		varies		IC-PCD-UV	F/CST	225-802	105	C/HLD	225-1	114	
Hexavalent chromium	NIOSH 7703	0.001 mg/m³ (10 hrs)		10-1200		1000-4000		varies		P VAS	F/CST	225-802	105	C/HLD	225-1	114	
Hexavalent chromium	OSHA W4001	0.005 mg/m³ (C)								IC-UV	FLT	225-5-37	or	FLT	225-1822	107	
Hexavalent chromium (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m³		960		2000		8		IC-UV	F/CST	225-802	105	C/HLD	225-1	114	
Hexavalent chromium (in settled dust)	NIOSH 9101			bulk	bulk					CLR or VAS or IC							
Hexone	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Hexone	OSHA 1004	100				13.62		8		GC-FID	PS	575-002	82				
Hexone	OSHA 1004	100		12		50		4		GC-FID	ST	NA SKC					
Hexone (Ketones I)	NIOSH 2555	50		1-10		10-200		varies		GC-FID	ST	NA SKC					
Hexone (methyl isobutyl ketone) (Ketones I)	NIOSH 1300	50	75	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48				
sec-Hexyl acetate	NIOSH 1450	50		10		200		50 (min)		GC-FID	ST	226-01	48				
Hexylene glycol	OSHA PV2101			3		200		15		GC-FID	ST	226-01	48				
HMX	OSHA PV2032			480		1000		8		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114	
Hydrazine	NIOSH 3503	0.03 (120 min)		90		1000		1.5		VAS	IMP	225-36-2	70	IT	225-22	70	
Hydrazine	NON 22			96		200		8		CLR	ST	226-42-02	49				
Hydrazine	OSHA 108	1		240		1000		4		LC-UV	CF/CST	225-9012	68	C/HLD	225-1	114	
Hydrazine	OSHA 20	1		20		100		3.3		HPLC-UV	ST	226-42-02	49				
Hydrazoic acid	NON 25			15		1000		15		HPLC-UV	ST	226-55	49				
Hydrazoic acid	OSHA ID 211			5		1000		5		IC-UV	ST CST C/HLD	226-55 225-2LF 225-1	49 113 114	FLT SPC	225-5-37-P 225-23	105 115	
Hydrocarbons BP 36 to 216 C (see specific compounds)	NIOSH 1500	varies		varies		varies		varies		GC-FID	ST	226-01	48				
Hydrocarbons, aromatic (see specific compounds)	NIOSH 1501	varies		varies		varies		varies		GC-FID	ST	226-01	48				
Hydrocarbons, halogenated (see specific compounds)	NIOSH 1003	varies		varies		varies		varies		GC-FID	ST	226-01	48				
Hydrofluoric acid (fluorides)	NIOSH 7906	3	6	960	30	2000	2000	8	15	IC-CD	CF/CST	225-9031	68	C/HLD	225-1	114	
Hydrogen bromide	NIOSH 7907		3		30		2000		15	IC-CD	CF/CST	225-9032	68				
Hydrogen bromide	OSHA ID 165SG	3		97	3	200	200	8	15	IC	ST	226-10-03	48				
Hydrogen chloride	NIOSH 7907		5		30		2000		15	IC-CD	CF/CST	225-9032	68				
Hydrogen chloride (hydrochloric acid)	OSHA ID 174SG		5		7.5		500		15	IC	ST	226-10-03	48				
Hydrogen cyanide	NIOSH 6010		4.7		2-90		50-200		varies	VAS	ST	226-210	52	CST	225-710	108	
Hydrogen cyanide	NIOSH 6017		4.7		2-90		50-200		varies	IC-ELCHM	ST	226-210	52	CST	225-710	108	
Hydrogen cyanide	OSHA 1015	10				28.4		8	15	IC-ELCHM	PS	590-400	94				
Hydrogen cyanide	OSHA ID 120	10		120	15	1000	1000	2	15	ISE	CST IT SP	225-3LF 225-22 225-2902	113 70 115	IMP FLT	225-36-2 225-5	70 100	
Hydrogen cyanide (cyanides)	NIOSH 7904		5 mg/m³ (10 min)		15		1000		15	ISE	FLT IMP C/HLD	225-17-32 Δ 225-36-2 225-1	106 70 114	CST IT	225-2LF 225-22	113 70	
Hydrogen fluoride	NIOSH 7906	3	6	960	30	2000	2000	8	15	IC-CD	CF/CST	225-9031	68	C/HLD	225-1	114	
Hydrogen fluoride (as F)	OSHA ID 110	3	6	90	22	1500	1500	1	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Hydrogen fluoride (fluorides)	NIOSH 7902	3	6	480	30	1000	2000	8	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114	
Hydrogen peroxide	OSHA 1019	1.0 (1.4 mg.m³)		240	30	1000	2000	4	15	VAS	CF/CST	225-9030	68	C/HLD	225-1	114	
Hydrogen sulfide	NIOSH 6013		10 (10 min)	24	3	100	300	4	10	IC	ST	NA SKC					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates					
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time							
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number				
Hydrogen sulfide	NON 42			12		1000		12 min		GC-FPD	SB	231-10	60		
Hydrogen sulfide	OSHA 1008	10	20	12	7.5	50	500	4	15	IC	ST	226-177	51		
Hydroquinone	NIOSH 5004	2 mg/m³ (15 min)		30		2000		15		HPLC-UV	F/CST	225-3-01	100	C/HLD	225-1 114
Hydroquinone	OSHA PV2094	2 mg/m³		20		200		100 min		HPLC-UV	ST	226-98	50		
4-Hydroxy-4-methyl-2-pentanone (see diacetone alcohol)															
4-Hydroxy-4-methyl-2-petanone (alcohols combined)	NIOSH 1405	50		1-10		10-200		varies		GC-FID	ST	226-01	48		
2-Hydroxypropyl acrylate	OSHA PV2078			10		100		100 min		GC-FID	ST	226-73	49		
2-Imidazolidinethione (ethylene thiourea)	NIOSH 5011	LFC		480		1000		8		VAS	F/CST	225-803	105	C/HLD	225-1 114
Indeno[1,2,3-cd]pyrene (2,3-phenylenepylene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49		
Indeno(1,2,3-cd)pyrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04 48
Indeno(1,2,3-cd)pyrene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808 107
Indeno(1,2,3-cd)pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04 48
Indium	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100
Indium & compounds (as In)	OSHA ID 121	0.1 mg/m³		480-960		2000		4-8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100
Indium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.1 mg/m³		8-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1 114
Indium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			15-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1 114
Iodine	NIOSH 6005	0.1		15		1000		15		IC	ST	226-67	49		
Iodine	NON 16			48		100		8		IC	ST	226-67	49		
Iodine	OSHA ID 212	0.1 (C)		2.5		500		5		IC	ST	226-80	49		
Iodine (particulates)	OSHA ID 212	0.1		2.5		500		5		IC	ST	226-142	51		
Iodine (vapor)	OSHA ID 212	0.1		2.5		500		5		IC	ST	226-80	49		
Iron	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100
Iron & compounds (as Fe)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100
Iron (bulk)	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215 or 105
Iron (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	5 mg/m³ (dust, fume) as Fe		2-500		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1 114
Iron (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	5 mg/m³ (dust, fume)		5-100		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥ 105
Iron (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.5 mg/m³ (dust, fume)		1-5,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1 114
Iron (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	5 mg/m³ (dust, fume)		5-100		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408 100
Iron (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415 170
Iron oxide (Elements by ICP HNO₃ Digestion)	NIOSH 7303			1-5,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1 114
Iron oxide fume	OSHA ID 121	10 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408 or 100
Iron oxide fume	OSHA ID 125G	10 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215 or 105

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Iron salts, soluble (as Fe)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-802 225-8408	or or 100			
Isoamyl acetate (Esters I)	NIOSH 1450	100		1-10		10-200		varies		GC-FID	ST	226-01	48					
Isoamyl alcohol (alcohols combined)	NIOSH 1405	100	125 (skin)	1-10	1-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48					
Isoamyl alcohol (alcohols III)	NIOSH 1402	100	125	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48					
Isobutanol (isobutyl alcohol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isobutyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isobutyl acetate	OSHA 1009	150				13.16	13.16	8	15	GC-FID	PS	575-002	82					
Isobutyl acetate	OSHA 1009	150		12	0.75	50	50	4	15	GC-FID	ST	226-01	48					
Isobutyl acetate (Esters I)	NIOSH 1450	150		1-10		10-200		varies		GC-FID	ST	226-01	48					
Isobutyl alcohol	OSHA 5001	200		12		4				GC-FID	ST	226-82	50					
Isobutyl alcohol (alcohols combined)	NIOSH 1405	50		2-10		10-200		varies		GC-FID	ST	226-01	48					
Isobutyl alcohol (alcohols II)	NIOSH 1401	50		10		20(50)		8(3.3)		GC-FID	ST	226-01	48					
Isobutyl alcohol (isobutanol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isobutyl isobutyrate	OSHA PV2090			10		200		50 min		GC-FID	ST	226-01	48					
Isobutyraldehyde (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50					
Isocyanates (see specific isocyanate)	NIOSH 5521	varies		480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70		
Isocyanates (see specific isocyanate)	NIOSH 5522	varies	varies	360	20	1000	2000	6	10	HPLC-FD	IMP	225-36-1	70	IT	225-22	70		
Isocyanates (see specific isocyanate)	OR-OSHA 1010	varies	varies	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70		
Isocyanates, total (see specific isocyanate)	NIOSH 5525	varies	varies	1-500	1-500	1000-2000	1000-2000	varies	varies	HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120		
Isoflurane	OSHA 103			12		50		4		GC-FID	ST	226-81A	49					
Isooctyl alcohol	OSHA PV2033	100		10		20(50)		8(3.3)		GC-FID	ST	226-01	48					
Isophorone	NIOSH 2508	4		10		20(50)		8(3.3)		GC-FID	ST	226-81A	49					
Isophorone	NIOSH 2556	4		2-25		10-100		varies		GC-FID	ST	226-93	50					
Isophorone (3,5,5-trimethylcyclohex-2-enone)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isophorone (3,5,5-trimethylcyclohex-2-enone)	Internal					11.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96		
Isophorone diisocyanate	OSHA 5002			60	15	1000	1000	1	15	HPLC-UV	CF/CST C/HLD	225-9002 225-1	or 114	CF/CST	225-9022 ▼	68		
Isophorone diisocyanate (IPDI)	OR-OSHA 1010	0.02	0.02	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70		
Isophorone diisocyanate (isocyanates, total)	NIOSH 5525	45 µg/m³	180 µg/m³ (10 min) C	1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120		
Isopropanol (isopropyl alcohol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isopropanol (isopropyl alcohol)	Internal					18.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96		
Isopropanol (isopropyl alcohol)	Internal					18.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96					
Isopropyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isopropyl acetate	NIOSH 1454			9		50		3		GC-FID	ST	226-01	48					
Isopropyl acetate	NIOSH 1460			0.1-9		20-200		varies		GC-FID	ST	226-01	48					
Isopropyl alcohol	OSHA 5001	200		12		4				GC-FID	ST	226-82	50					
Isopropyl alcohol (Alcohols I)	NIOSH 1400	400	500	3	3	20	200	2.5	15	GC-FID	ST	226-01	48					
Isopropyl alcohol (isopropanol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Isopropyl alcohol (isopropanol)	Internal					18.4 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96		
Isopropyl alcohol (isopropanol)	Internal					18.4 ml/min		8-24 hrs		SE, GC	PS	690-105	96					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Isopropyl amine		5				13		8 hrs		HPLC-UV	PS	500-400	92			
Isopropyl amine	OSHA PV2126	5		20		100		200 min		HPLC	ST	226-30-18	48			
N-Isopropyl aniline	OSHA 78			133		1000-2000		100 min		HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114
Isopropyl benzen (cumene)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Isopropyl Benzene (cumene)	Internal					12.8 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96
Isopropyl Benzene (cumene)	Internal					12.8 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Isopropyl ether	NIOSH 1618	500		0.1-3		10-50		varies		GC-FID	ST	226-01	48			
Isopropyl glycidyl ether	NIOSH 1620		50 (15 min)		3		200		15	GC-FID	ST	226-01	48			
Isovaleraldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
Isovaleraldehyde (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50			
Kaolin (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Kaolin (particulates, total)	NIOSH 0500			120		2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Kathon 886 (kathon biocide)	NON 55			50	7.5	200	500	4	15	HPLC-UV	ST	226-99	50			
Kepone	NIOSH 5508	1 µg/m³		480		1000		8		GC-ECD	F/CST IT	225-3-01 225-22	100 70	IMP	225-36-1	70
Kerosene	OSHA PV2139			20		100		200 min		GC-FID	ST	226-01	48			
Kerosene (naphthas)	NIOSH 1550	100 mg/m³		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
Ketones	EPA TO-5			< 80 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70
Ketones (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52			
Ketones I (see specific compounds)	NIOSH 1300	varies		varies		10-200		varies		GC-FID	ST	226-01	48			
Ketones I (see specific compounds)	NIOSH 2555			varies		varies		varies		GC-FID	ST	NA SKC				
Ketones II (see specific compounds)	NIOSH 1301	varies		varies		varies		8		GC-FID	ST	226-01	48			
Ketones II (see specific ketone)	NIOSH 2553	varies	varies	1-25	1-25	10-200	10-200	varies	varies	GC-FID	ST	NA SKC				
Lanthanum (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Lanthanum (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105
Lanthanum (Elements by ICP HNO3/HClO4 Ashing)	NIOSH 7300			5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Lanthanum (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170
Lasso (aroclor)	OSHA PV2035			100		1000		100 min		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114
Lead	NIOSH 7082	< 0.1 mg/m³		720		1500		8		AAS-F	F/CST	225-3-01	100	C/HLD	225-1	114
Lead	NIOSH 7105	< 0.1 mg/m³		720		1500		8		AAS-GF	F/CST	225-3-01	100	C/HLD	225-1	114
Lead (by field portable XRF)	NIOSH 7702	< 0.1 mg/m³		960		2000		8		XRF	F/CST	225-3-01	100			
Lead (by portable ultrasound extraction/ASV)	NIOSH 7701	0.05 mg/m³		20-1500		1000-4000		varies		P ASV	F/CST	225-3-01	100	C/HLD	225-1	114
Lead (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.05 mg/m³		4-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Lead (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.05 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105
Lead (Elements by ICP HNO3 Digestion)	NIOSH 7303	0.5 mg/m³		35-100,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Lead (Elements by ICP HNO3/HClO4 Ashing)	NIOSH 7300	0.05 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100
Lead (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170
Lead (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206			480		2000		4		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Lead (in dust wipes)	NIOSH 9105									SPOT	W	550-001	or	W	550-002	169
Lead (in surface dust)	ASTM E 1792			bulk						varies	W	225-2414	170			
Lead (in surface dust)	OSHA ID 125G			wipe						ICP-AES	W	225-2414	170			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞								Analytical Method	SKC Collecting Equipment & Page Number						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)								
Lead (in workplace air)	ASTM D 6785			varies		varies		varies		AAS-F	IOM	225-70A	120	FLT	225-1930	100	
Lead (on surfaces)	NIOSH 9100									AA-F or AA-GF or ICP	W	225-2414	170				
Lead chromate (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m³		960		2000		8		IC-UV	F/CST	225-802 Ω	105	C/HLD	225-1	114	
Lead oxide (as lead)	NIOSH 7082	< 0.1 mg/m³		720		1500		8		AAS-F	F/CST	225-3-01	100	C/HLD	225-1	114	
Lead oxide (as Pb)	NIOSH 7105	< 0.1 mg/m³		720		1500		8		AAS-GF	F/CST	225-3-01	100	C/HLD	225-1	114	
Lead oxide (by field portable XRF)	NIOSH 7702	< 0.1mg/m³		960		2000		8		XRF	F/CST	225-3-01	100				
Lead oxide (by portable ultrasound extraction/ASV)	NIOSH 7701	0.05 mg/m³		20-1500		1000-4000		varies		P ASV	F/CST	225-3-01	100	C/HLD	225-1	114	
Lead sulfide (as Pb)	NIOSH 7505	< 0.1 mg/m³		750		2500		5		XRD	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114	
Lead, inorganic fumes & dusts (as Pb)	OSHA ID 121	0.05 mg/m³		960	30	2000	2000	8	15	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Lead, inorganic fumes & dusts (as Pb)	OSHA ID 125G	0.05 mg/m³		480	30	2000	15	4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Lead, inorganic surface dusts (as Pb)	OSHA ID 121									AA or AES	W	225-24	or	W	225-2414	170	
Limestone (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Limestone (see calcium carbonate)																	
Limestone (see Particulates Not Otherwise Regulated, total and respirable)																	
Limonene	OSHA PV2036			10		20(50)		8(3.3)		GC-FID	ST	226-01	48				
Limonene (terpenes)	NIOSH 1552			24		50		8		GC-FID	ST	226-01	48				
Lindane (gamma-BHC)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Linuron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				
Lithium	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Lithium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Lithium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			100-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105	
Lithium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300			100-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Lithium hydride (as Li)	OSHA ID 121	0.025 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Lithium hydroxide (alkaline dust)	NIOSH 7401			960		2000		8		TITRA	F/CST	225-1715	106	C/HLD	225-1	114	
Lithium hydroxide (as Li)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Magnesite (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113	
Magnesite (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Magnesium	OSHA ID 121			960	30	2000	2000	8	15	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Magnesium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			1-330		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Magnesium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	10 mg/m³ (fume, as oxide)		5-67		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105	
Magnesium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			1-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Magnesium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	10 mg/m³ (fume, as oxide)		5-67		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100	
Magnesium oxide (as Mg, elements by ICP)	NIOSH 7303	10		5-33,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Magnesium oxide fume (respirable dust)	OSHA ID 121	5 mg/m³		960		2000		8		GR & AA or GR & AES	F/CST CYC	225-3-01 225-105	100 124	C/HLD	225-1	114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Magnesium oxide fume (total dust)	OSHA ID 121	15 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or or 100	
Malathion	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54			
Malathion	OSHA 62	15 mg/m³		60		1000		1		GC-FPD	ST	226-30-16	48			
Malathion (Organophosphorus Pesticides)	NIOSH 5600	10 mg/m³		60		1000		1		GC-FPD	ST	226-58	49			
Maleic anhydride	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Maleic anhydride	NIOSH 3512	0.25		360		1000		6		HPLC-UV	IMP	225-36-2	70	IT	225-22 70	
Maleic anhydride	OSHA 86	0.25		60		500		2		HPLC-UV	CF/CST	225-9021 ††	68	C/HLD	225-1 114	
Maneb	OSHA 107			500		2000		250		HPLC-UV	F/CST	225-3-01	100	C/HLD	225-1 114	
Manganese & compounds (as Mn)	OSHA ID 121	5 mg/m³ (C)		960	10	2000	2000	8	5	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or or 100	
Manganese & compounds (as Mn)	OSHA ID 125G	5 mg/m³		10		2000		5		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST 225-3100 225-8215	or or 105	
Manganese (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	1 mg/m³	3 mg/m³	1-1000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1 114	
Manganese (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	1 mg/m³	3 mg/m³	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ‡ 105	
Manganese (Elements by ICP HNO₃ Digestion)	NIOSH 7303	1 mg/m³	3 mg/m³	0.05-10,000	0.05-10,000	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1 114	
Manganese (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	1 mg/m³	3 mg/m³	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408 100	
Manganese (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415 170	
Manganese fume	OSHA ID 125G	5 mg/m³		480	30	2000	2000	4	15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST 225-3100 225-8215	or or 105	
Manganese fume (as Mn)	OSHA ID 121	5 mg/m³ (C)		960	10	2000	2000	8	5	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or or 100	
Manganese in welding fume	NON 58	5 mg/m³		varies		750		varies		GR	FLT C/HLD	225-8050 225-6200	100 117	CST	225-6201 117	
Manganese tetroxide (as Mn)	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST 225-8408	or or 100	
Manganese tetroxide (as Mn)	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST 225-3100 225-8215	or or 105	
Marble (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF 113	
Marble (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1 114	
Marble (see <i>Particulates Not Otherwise Regulated, total and respirable</i>)																
MDI (4,4-methylene bisphenyl isocyanate)	OSHA 47	50 µg/m³	200 µg/m³	10		1000		10		HPLC-UV	CF/CST C/HLD	225-9002 225-1	or 114	CF/CST	225-9013 68	
MDI (4,4-methylenebis[phenyl isocyanate]) (isocyanates, total)	NIOSH 5525	50 µg/m³	200 µg/m³ (10 min) C	1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A 120	
MDI (4,4'-methylenebisphenyl isocyanate) (isocyanates)	NIOSH 5521	50 µg/m³	200 µg/m³ (10 min) C	480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22 70	
MEK (see <i>methyl ethyl ketone</i>)																
Mercaptans (see <i>specific compounds</i>)	NIOSH 2542	0.5 (15 min)		48	12	100	200	8	60	GC-FPD	CF/CST	225-9007	68	C/HLD	225-1 114	
Mercury	NIOSH 6009	0.05 mg/m³		48		200		4		AA	ST	226-17-1A	48	F/CST	225-3-01 100	
Mercury (Rathje & Marcero)	NON 17			48		100		8		AA	ST	226-17-1A	48			
Mercury (Rathje & Marcero)	NON 17			varies		1000-3000		varies		AA	ST	226-17-3A	48			
Mercury (vapor)	OSHA ID 140	0.1 mg/m³		3-100		200		varies		AA	ST	226-17-1A	48	F/CST	225-3-01 100	
Mercury, Particulate (in Workplace Atmospheres, air samples)	OSHA ID 145	0.01 mg/m³		30		2000		15		AA	F/CST	225-3-01	100	C/HLD	225-1 114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

SAMPLING ∞

Chemical Hazard	Agency Reference	Agency Standard		Vol. (liter)		Rate (ml/min)		Time		Analytical Method	SKC Collecting Equipment & Page Number					
		TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)							
Mercury, Particulate (in Workplace Atmospheres, wipe samples)	OSHA ID 145		0.01 mg/m ³							wipe	SM TB	225-24		170		
Mesityl oxide (Ketones II)	NIOSH 2553	10		1-25		10-200		varies		GC-FID	ST	NA SKC				
Mesityl oxide (Ketones II)	NIOSH 1301	10		10		20(50)		8(3.3)		GC-FID	ST	226-01		48		
Mesitylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Mestranol	OSHA PV2068			480		2000		4		HPLC	F/CST	225-802	105	C/HLD	225-1	114
Metal & metalloid particulates	OSHA ID 121	varies	varies	960	30	2000	2000	8	15	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100
Metal & metalloid particulates	OSHA ID 125G	varies	varies	480	30	2000	2000	4	15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105
Metal & metalloid particulates (bulk sample)	OSHA ID 125G	varies	varies	bulk	bulk					ICP-AES	SM TB	225-24		170		
Metal removal fluid (aerosol)	ASTM D 7049			960		2000		8		GR	FLT C/HLD	225-17-33 225-1	106 114	CST SP	225-2LF	113 115
Metal working fluids (aerosols)	ASTM D 7049			960		2000		8		GR	FLT C/HLD	225-17-33 225-1	106 114	CST SP	225-2LF	113 115
Metals (ICP analysis of metal/metalloid particulates from solder operations) (bulk sample)	OSHA ID 206	varies	varies	bulk	bulk					ICP-AES	SM TB	225-24		170		
Metals (in settled dust)	ASTM D 6966			wipe		wipe		wipe		varies	W	225-2414	170	TMP	225-2415	170
Metals in workplace atmospheres	ASTM D 4185			varies		2000		varies		AAS	F/CST	225-3-01	100	C/HLD	225-1	114
Metals, trace (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	varies	varies	varies	varies	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Metalworking fluids (thoracic particulates)	NIOSH 5524 ●	0.4 mg/m ³ (thoracic particulates)		2000		varies		varies		GR	PPI IS SCN	225-381 225-388 225-26	128 115	FLT SP	225-17-33 225-27	106 or
Metalworking fluids (total particulates)	NIOSH 5524 ●	0.5 mg/m ³ (total particulates)		1000 (min)		2000		varies		GR	FLT C/HLD	225-17-33 225-1	106 114	CST SP	225-2LF	113 115
Methacrylic acid	OSHA PV2005	20		20		100		4		LC-UV	ST	226-30-08		48		
Methacrylic acid	NON 60			24		100		4		HPLC-UV	ST	226-30-08		48		
Methamidophos (Organophosphorus Pesticides)	NIOSH 5600			240		1000		4		GC-FPD	ST	226-58		49		
Methanol (methyl alcohol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Methanol (methyl alcohol)	NIOSH 2000	200	250	1 (@200ppm) 5	3	20	200	4	15	GC-FID	ST	226-51		49		
Methidathion	OSHA PV2074			60		1000		1		GC-ECD	ST	226-58		49		
Methiocarb (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48
Methomyl	OSHA PV2114			60		1000		1		HPLC-UV	ST	226-30-16		48		
Methomyl (Organonitrogen Pesticides)	NIOSH 5601	2.5 mg/m ³		240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48
Methotrexate	OSHA PV2146			120		1000		2		HPLC-UV	ST	226-30-16		48		
2-Methoxy-1-propanol	OSHA 99			10		100		100 min		GC-FID	ST	226-01		48		
2-Methoxy-1-propyl acetate	OSHA 99			10		100		100 min		GC-FID	ST	226-01		48		
1-Methoxy-2-propanol	OSHA 99			10		100		100 min		GC-FID	ST	226-01		48		
1-Methoxy-2-propanol (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A		49		
1-Methoxy-2-propyl acetate	OSHA 99			10		100		100 min		GC-FID	ST	226-01		48		
1-Methoxy-2-propyl acetate (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A		49		
Methoxychlor	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92		54		
Methoxychlor	OSHA PV2038	15 mg/m ³		60		1000		1		GC-ECD	ST	226-30-16		48		
2-Methoxyethanol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Methoxyethanol (methyl CELLOSOLVE solvent) (alcohols IV)	NIOSH 1403	0.1 (skin)		6-50		10-50		varies		GC-FID	ST	226-01		48		
2-Methoxyethyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Methoxyethyl acetate	OSHA 53	25		10		100		100 min		GC-FID	ST	226-01		48		
2-Methoxyphenol	OSHA PV2039			20		200		100 min		GC-FID	ST	226-95		50		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
3-Methoxyphenol	OSHA PV2039			20		200		100 min		GC-FID	ST	226-95	50			
4-Methoxyphenol	OSHA PV2039			20		200		100 min		GC-FID	ST	226-95	50			
Methoxypropanol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl acetate	NIOSH 1458	200	250	5	3	20	200	4	15	GC-FID	ST	226-01	48			
Methyl acrylate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl acrylate	Internal					15.7 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96	
Methyl acrylate	Internal					15.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Methyl acrylate	NIOSH 1459	10		5		20		4		GC-FID	ST	226-01	48			
Methyl acrylate	NIOSH 2552	10		1-5		10-200		varies		GC-FID	ST	NA SKC				
Methyl acrylate	NON 54	5	15	10	3	20	200	8	15	GC-FID	ST	226-81A	49			
Methyl acrylate	OSHA 92	10		12		50		4		GC-FID	ST	226-73	49			
Methyl acrylonitrile	OSHA 37			20		200		100 min		GC-NPD	ST	226-01	48			
Methyl alcohol (methanol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl alcohol (methanol)	NIOSH 2000	200	250	1(@200ppm) -5	3	20	200	4	15	GC-FID	ST	226-51	49			
Methyl alcohol (RH < 50% @ 25 C)	OSHA 5001	200		3		50		1		GC-FID	ST	226-82	50			
Methyl alcohol (RH > 50% @ 25 C)	OSHA 5001	200		5		50		100 min		GC-FID	ST	226-82	50			
Methyl amine		10				18		8 hrs		HPLC-UV	PS	500-400	92			
Methyl amine	OSHA 40	10		10		20		8		HPLC-UV	ST	226-96	50			
Methyl arsonic acid (arsenic, organo-)	NIOSH 5022			480		1000		8		IC-AA	FLT C/HLD	225-17-01 225-1	106 114	CST	225-2LF 113	
Methyl bromide	NIOSH 2520	LFC		1-5		10-100		varies		GC-AED	ST	226-82	50	ST	226-44-02 49	
Methyl bromide	OSHA PV2040		20		3		200		15	GC-FID	ST	226-82	50			
Methyl butyl ketone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC				
Methyl butyl ketone (MBK, 2-hexanone)	Internal					14.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96	
Methyl butyl ketone (MBK, 2-hexanone)	Internal					14.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Methyl butyl ketone (MBK, 2-hexanone) (Ketones I)	NIOSH 1300	1		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
Methyl CELLOSOLVE acetate (2-methoxyethyl acetate)	NIOSH 1451	0.1		12		50		4		GC-FID	ST	226-01	48			
Methyl CELLOSOLVE solvent (2-methoxyethanol) (alcohols IV)	NIOSH 1403	0.1 (skin)		6-50		10-50		varies		GC-FID	ST	226-01	48			
Methyl chloride	NIOSH 1001	LFC			0.5		100		5	GC-FID	ST	226-09	48	ST	226-01 48	
Methyl chloroform (1,1,1-Trichloroethane)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl chloroform (1,1,1-Trichloroethane)	Internal					14.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Methyl chloroform (1,1,1-trichloroethane)	OSHA 14	350		3	3	20	200	2.5	15	GC-FID	ST	226-01	48			
Methyl chloroform (1,1,1-trichloroethane) (hydrocarbons, halogenated)	NIOSH 1003		350		3		10-200		varies	GC-FID	ST	226-01	48			
Methyl cyclohexane	Internal					14.2 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96	
Methyl cyclohexane	Internal					14.2 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Methyl cyclohexane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	400		4		10-200		varies		GC-FID	ST	226-01	48			
Methyl ethyl ketone	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37	
Methyl ethyl ketone	Internal					16.9 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96	
Methyl ethyl ketone	Internal					16.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Methyl ethyl ketone	OSHA 1004	200		12		50		4		GC-FID	ST	NA SKC				
Methyl ethyl ketone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC				
Methyl ethyl ketone (MEK) (see 2-butanone)																
Methyl ethyl ketone (MEK) (see 2-butanone)	NIOSH 2500	200	300	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-81A	49			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞								Analytical Method		SKC Collecting Equipment & Page Number					
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)								
Methyl ethyl ketone (MEK, 2-butanone)	OSHA 1004	200				16.88		8		GC-FID	PS	575-002	82				
Methyl ethyl ketone peroxide	NIOSH 3508		0.2 (15 min)		120		1000		120	VAS	IMP	225-36-1	70	IT	225-22	70	
Methyl ethyl ketone peroxide	OSHA 77				15		1000		15	HPLC-UV	ST	226-93	50				
Methyl formate	OSHA PV2041	100		3		50		1		GC-FID	ST	226-83	50				
Methyl iodide	NIOSH 1014	2		48		100		8		GC-FID	ST	226-01	48				
Methyl isoamyl acetate (Esters I)	NIOSH 1450	50		1-10		10-200		varies		GC-FID	ST	226-01	48				
Methyl isoamyl ketone	OSHA PV2042	100		24		50		8		GC-FID	ST	226-01	48				
Methyl isobutyl carbinol (methyl amyl alcohol) (alcohols combined)	NIOSH 1405	25	40 (skin)	1-10	1-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
Methyl isobutyl carbinol (methyl amyl alcohol) (Alcohols III)	NIOSH 1402	25	40	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48				
Methyl isobutyl ketone	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Methyl isobutyl ketone	Internal					13.5 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
Methyl isobutyl ketone	Internal					13.5 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Methyl isobutyl ketone	OSHA 1004	100		12		50		4		GC-FID	ST	NA SKC					
Methyl isobutyl ketone (hexone)	OSHA 1004	100				13.62		8		GC-FID	PS	575-002	82				
Methyl isobutyl ketone (hexone) (Ketones I)	NIOSH 1300	50	75	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48				
Methyl isobutyl ketone (Ketones I)	NIOSH 2555	50		1-10		10-200		varies		GC-FID	ST	NA SKC					
Methyl isocyanate (MIC)	OSHA 54	0.02		15		50		5		HPLC-FD	ST	NA SKC					
Methyl mercaptan	NIOSH 2542		0.5 (15 min)	48	12	100	200	8	60	GC-FPD	CF/CST	225-9007	68	C/HLD	225-1	114	
Methyl mercaptan	NON 42			12		1000		12 min		GC-FPD	SB	231-10	60				
Methyl mercaptan	OSHA 26		10	20		200		100 min		GC-FPD	CF/CST	225-9007	68	C/HLD	225-1	114	
Methyl methacrylate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Methyl methacrylate	Internal					13.1 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103	96	
Methyl methacrylate	Internal					13.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Methyl methacrylate	NIOSH 2537	100		1-8		10-50		varies		GC-FID	ST	226-30-06	48				
Methyl methacrylate	NON 54	50	75	10	3	20	200	8	15	GC-FID	ST	226-81A	49				
Methyl methacrylate	OSHA 94	100		3		50		1		GC-FID	ST	226-73	49				
Methyl n-amyl ketone (2-heptanone) (Ketones II)	NIOSH 2553	100		1-25		10-200		varies		GC-FID	ST	NA SKC					
Methyl parathion	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54				
Methyl parathion	OSHA PV2112			480		1000		8		GC-FPD	ST	226-30-16	48				
Methyl parathion (Organophosphorus Pesticides)	NIOSH 5600	0.2 mg/m³		240		1000		4		GC-FPD	ST	226-58	49				
Methyl propyl ketone (2-pentanone)	NIOSH 1300	150		10		200		50 (min)	15	GC-FID	ST	226-01	48				
Methyl propyl ketone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC					
alpha-Methyl styrene	Internal					12.6 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96	
alpha-Methyl styrene	Internal					12.6 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
alpha-Methyl styrene (Hydrocarbons, Aromatic)	NIOSH 1501	50	100	1-30	1-30	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
beta-Methyl styrene (Hydrocarbons, Aromatic)	NIOSH 1501	50	100	1-30	1-30	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
Methyl styrene (vinyl toluene)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
17-a-Methyl testosterone	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114	
Methyl-2-cyanoacrylate	OSHA 55			12		100		2		HPLC-UV	ST	226-98	50				
1-Methyl-2-ethyl benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
1-Methyl-2-pyrrolidinone	OSHA PV2043			10		200		50 min		GC-FID	ST	226-01	48				
N-Methyl-2-pyrrolidinone	NIOSH 1302			96		200		8		GC-NPD, FID	ST	226-01	48				
N-Methyl-2-pyrrolidinone	OSHA PV2043			10		200		50 min		GC-FID	ST	226-01	48				
1-Methyl-3-ethyl benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
5-Methyl-3-heptanone (ketones II)	NIOSH 2553	25		1-25		10-200		varies		GC-FID	ST	NA SKC					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
5-Methyl-3-heptanone (ketones II)	NIOSH 1301	25		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			
1-Methyl-4-ethyl benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
2-Methyl-4-isothiazolin-3-one (Kathon 886)	NON 55	1.5 mg/m³	4.5 mg/m³	50	7.5	200	500	4	15	HPLC-UV	ST	226-99	50			
Methylal (dimethoxymethane)	NIOSH 1611	1000		1.8		20		1.5		GC-FID	ST	226-01	48			
Methylal (see dimethoxymethane)																
Methylcyclohexanol	NIOSH 1404	50		12		25		8		GC-FID	ST	226-01	48			
Methylcyclohexanone	NIOSH 2521	50	75	3		50		1		GC-FID	ST	226-115	50			
4,4-Methylene bisphenyl isocyanate (MDI)	OSHA 5002		200 µg/m³		15		1000		15	HPLC-UV	CF/CST CF/CST	225-9002 225-9022▼	or 68	CF/CST C/HLD	225-9013 225-1	or 114
4,4-Methylene bisphenyl isocyanate (MDI) (isocyanates)	NIOSH 5521	50 µg/m³	200 µg/m³ (10 min) C	480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70
4,4-Methylene bisphenyl isocyanate (MDI) (isocyanates)	OR-OSHA 1010	0.02	0.005	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70
Methylene chloride	NIOSH 1005	LFC		2	1.5	20	100	1.6	15	GC-FID	ST	226-01	48			
Methylene chloride	OSHA 80	25	125	3	0.25	50	50	1	5	GC-FID	ST	NA SKC				
Methylene chloride (dichloromethane)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Methylene chloride (dichloromethane)	Internal					0.54 ml/min		1-7 days		SE, GC	PS	690-105	with	RR	690-300	96
Methylene chloride (dichloromethane)	Internal					14.7 ml/min		8 hrs-3 days		SE, GC	PS	690-105	96			
4,4-Methylene diphenyl isocyanate (MDI)	NIOSH 5522	50 µg/m³	200 µg/m³ (10 min) C	360	20	1000	2000	6	10	HPLC-FD	IMP	225-36-1	70	IT	225-22	70
4,4'-Methylenebis(2-chloroaniline) (MOCA)	OSHA 71			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
Methylene-bis-(4-cyclohexylisocyanate)	OSHA 5002				15		1000		15	HPLC-UV	CF/CST C/HLD	225-9013 225-1	or 114	CF/CST 225-9022▼		68
Methylene-bis-(4-cyclohexylisocyanate) (isocyanates, total)	NIOSH 5525		110 µg/m³ (10 min) C		1-500		1000-2000		varies	HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120
4,4-Methylenebisphenyl isocyanate (MDI) (isocyanates, total)	NIOSH 5525	50 µg/m³	200 µg/m³ (10 min) C	1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120
4,4'-Methylenedianiline (MDA)	NIOSH 5029	LFC		480		1000		8		HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114
4,4'-Methylenedianiline (MDA)	OSHA 57			100		1000		100		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
Methyl-n-amyl ketone (2-heptanone) (Ketones II)	NIOSH 1301	100		1-25		10-200		8		GC-FID	ST	226-01	48			
Methylphenols	EPA TO-8			< 80 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70
Methyl-t-butyl-ether (MTBE)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Methyl-t-butyl-ether (MTBE)	Internal					13.6 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
Methyl-tert-butyl ether	NIOSH 1615			96		200		8		GC-FID	ST	226-37	49			
Methyltetrahydrophthalic anhydride	NON 28			200	20	40	1000	8	20	GC-FID	ST	226-30	48			
Methyltin dichloride	NIOSH 5526	0.1 mg/m³		15-75		250-1000		0.2-5	60	GC-FPD	ST	226-30-16	48			
Metolachlor	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Metolachlor	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49			
Metribuzin	OSHA PV2044			240		1000		4		GC-FPD	ST	226-30-16	48			
Mevinphos (phosdrin) (Organophosphorus Pesticides)	NIOSH 5600	0.01		240		1000		4		GC-FPD	ST	226-58	49			
Mexacarbate	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
MIBK (see methyl isobutyl ketone)																
MIC (methyl isocyanate)	OSHA 54	0.02		15		50		5		HPLC-FD	ST	NA SKC				
Mica (see Respirable dust)	OSHA ID 142 (v4)															
Mineral spirits (naphthas)	NIOSH 1550	350 mg/m³	1800 mg/m³	3	1	20	200	2.5	5	GC-FID	ST	226-01	48			
Methyl tin mercaptide (MTM)	OSHA ID 219SG	0.1 mg/m³		150		1000		150 mins		AA, GF	IMP	225-36-1	70	TH	225-20-01	70

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Mineral wool fiber (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Mineral wool fiber (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Mirex	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Mold spores (in air)				15-150		15000		1-10 min		varies	STC	225-9820	112					
Molybdenum (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			1-330		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Molybdenum (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	5 mg/m³ (soluble) 10 mg/m³ (insoluble)		5-67		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105		
Molybdenum (Elements by ICP HNO₃ Digestion)	NIOSH 7303	5 mg/m³ (soluble) 10 mg/m³ (insoluble)		0.5-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Molybdenum (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	5 mg/m³ (soluble) 10 mg/m³ (insoluble)		6-67		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Molybdenum (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Molybdenum insolubles (as Mo)	OSHA ID 125G	15 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105		
Molybdenum insolubles (as Mo) (respirable fraction)	OSHA ID 121	15 mg/m³ (total dust)		960		2000		8		GR & AA or GR & AES	F/CST CYC	225-3-01 225-105	100 124	C/HLD	225-1	114		
Molybdenum solubles (as Mo)	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Monochloroacetic acid (chloroacetic acid)	NIOSH 2008			48		100		8		IC-CD	ST	226-47-01	49					
Monochlorotoluene (1-chloro-2-methyl benzene; OXSOL 10)	Internal					13.0 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or		
Monochlorotoluene (1-chloro-2-methyl benzene; OXSOL 10)	Internal					13.0 ml/min		8-24 hrs		SE, GC	PS	690-105	96					
Monocrotophos (Azodrin)	OSHA PV2045			480		1000		8		GC-FPD	ST	226-30-16	48					
Monocrotophos (Organophosphorus Pesticides)	NIOSH 5600	0.25 mg/m³		240		1000		4		GC-FPD	ST	226-58	49					
Monoethanolamine (2-aminoethanol)	NIOSH 3509	3	6	240		1000		4		IC	IMP	225-36-1	70	IT	225-22	70		
Monoethanolamine (see 2-aminoethanol)																		
Monomethyl aniline	NIOSH 3511	0.5		100		1000		100 min		GC-FID	IMP	225-36-2	70	IT	225-22	70		
Monomethyl hydrazine	NIOSH 3510		0.04 (120 min)		15		1000		15	VAS	IMP	225-36-2	70	IT	225-22	70		
Monomethyl hydrazine	OSHA 20		0.2		4.5		300		15	HPLC-UV	ST	226-42-02	49					
Monuron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Morpholine	OSHA PV2123	20		10		100		100 min		GC-FID	ST	226-98	50					
Mycobacteria	NIOSH 0801			50-300		28300		varies		GC-FID	BI	225-9611	134					
Mycobacterium tuberculosis (airborne)	NIOSH 0900			1920		4000		8		PCR	FLT CST	225-17-32 225-3LF	106 113	SP C/HLD	225-27 225-1	115 114		
Mycotoxins (fungi in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A	136		
Naphtha (coal tar)	NIOSH 1550	100		10		20(50)		8(3.3)		GC-FID	ST	226-01	48					
Naphtha (coal tar)	OSHA 48	100		3		200		15 min		GC-FID	ST	226-01	48					
Naphthalene	OSHA 35	10		10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-110	50					
Naphthalene (Naphthene, naphthalin) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49					
Naphthalene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209 by GC-MS)			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107		
Naphthalene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Naphthalene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506	10	15	480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
1,5-Naphthalene diisocyanate	OSHA PV2046			60		1000		1		HPLC-UV-FD	CF/CST	225-9013	68	C/HLD	225-1	114		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
Chemical Hazard	Agency Reference	Agency Standard		Vol. (liter)		Rate (ml/min)		Time		Analytical Method	SKC Collecting Equipment & Page Number						
		TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)								
1,5-Naphthalene diisocyanate (isocyanates, total)	NIOSH 5525	40 µg/m³	70 µg/m³ (10 min) C	1-500	1-500	1000-2000	1000-2000	varies	varies	HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120	
Naphthas (see specific compounds)	NIOSH 1550	varies		varies		varies		8		GC-FID	ST	226-01	48				
alpha-Naphthylamine	OSHA 93			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114	
beta-Naphthylamine	OSHA 93			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114	
Naphthylamines (alpha- & beta-)	NIOSH 5518			96		200		8		GC-FID	FLT ST	225-16 226-51	108 49	CST	225-32	114	
Naphthylene diisocyanate (NDI) (isocyanates)	NIOSH 5521	40 µg/m³	70 µg/m³ (10 min) C	480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70	
Naphthylthiourea (see ANTU)																	
Nickel (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.015 mg/m²		2-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Nickel (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.015 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105	
Nickel (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.012 mg/m³		1-50,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Nickel (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.15 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100	
Nickel (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170	
Nickel (metal & insoluble compounds as Ni)	OSHA ID 125G	1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Nickel (metal, soluble, & insoluble compounds as Ni)	OSHA ID 121	1 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Nickel (soluble compounds as Ni)	OSHA ID 121	1 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Nickel (soluble compounds as Ni)	OSHA ID 125G	1 mg/m³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Nickel carbonyl	NIOSH 6007	0.001		72		150		8		AA-GF	ST	NA SKC		F/CST	225-3-01	100	
Nicotine	NIOSH 2544	0.5 mg/m³		360		1000		6		GC-NPD	ST	226-30-04	48				
Nicotine	NIOSH 2551	0.5 mg/m³		480		1000		8		GC-NPD	ST	226-93	50				
Nicotine	NON 19			120		1000		2		GC	ST	226-93	50				
Nicotine	NON 49			90-720		1500		1- 8		GC-NSD	ST	226-170	51				
Nicotine & 3-ethenylpyridine	ASTM D 5075			varies		1500		varies		GC-NPD	ST	226-93	50				
Niobium (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.012 mg/m³		0.1-3,300		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Nitric acid	NIOSH 7907	2	4	600	30	2000	2000	5	15	IC-CD	CF/CST	225-9032	68	C/HLD	225-1	114	
Nitric acid	OSHA ID 16SSG	2		96	7.5	200	500	8	15	IC	ST	226-10-03	48				
Nitric oxide	NON 59	25		3-24		100		4		IC	ST	226-40A	49				
p-Nitroaniline	NIOSH 5033	3 mg/m³		240		1000		4		HPLC-UV	F/CST	225-3-01	100	C/HLD	225-1	114	
Nitrobenzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Nitrobenzene	NIOSH 2005	1		48		100		8		GC-FID	ST	226-10	48				
Nitrobenzene	NIOSH 2017	1		24		200		2		GC-FID	CF/CST	225-9004	68	ST	226-15	48	
p-Nitrochlorobenzene (nitrobenzenes)	NIOSH 2005	0.1		96		200		8		GC-FID	ST	226-10	48				
Nitrochloroform	NON 51	0.1		144		100		24		GC-MSD	ST	226-175	51				
Nitrochloromethane	NON 51	0.1		144		100		24		GC-MSD	ST	226-175	51				
4-Nitrodiphenyl	OSHA PV2082			240		500		8		GC-FID	ST	226-30-16	48				
Nitroethane	NIOSH 2526	100		2.4		20		2		GC-FID	ST	226-3002A	48				
Nitrofurazone	OSHA PV2069			240		1000		4		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114	
Nitrogen dioxide	NIOSH 6014	1 (NO₂)		1.5-6		25-200		varies		VAS	ST	226-40-02	49				
Nitrogen dioxide	OSHA ID 182	5 (C)		3		200		15		IC	ST	226-40-02	49				
Nitroglycerin	NIOSH 2507	0.1 mg/m³		3		200		15		GC-ECD	ST	226-35-03	48				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞													
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time							
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number				
Nitroglycerin	OSHA 43	0.1 mg/m³		15		1000		15		HPLC	ST	226-35-03	48		
Nitromethane	NIOSH 2527			2.4		20		2		GC-NSD	ST	226-111A	50		
1-Nitropropane	OSHA 46	25		3		100		30 min		GC-FID	ST	226-93	50		
2-Nitropropane	NIOSH 2528	LFC		2		20		1.5		GC-FID	ST	226-110	50		
2-Nitropropane	OSHA 46	25		3		100		30 min		GC-FID	ST	226-93	50		
1-Nitropyrene in diesel particulates	NIOSH 2560			480-960		1000-2000		varies		GC-NCD	FLT SPC	225-7 225-23	108 115	SP	225-27 115
N-Nitrosodiethanolamine	OSHA 31			480		2000		4		GC-TEA	F/CST	225-706	108	C/HLD	225-1 114
N-Nitrosodiphenylamine	OSHA 23			240		1000		4		HPLC-UV	IMP	225-36-2	70	IT	225-22 70
m-Nitrotoluene (nitroaromatic compounds)	NIOSH 2005	2 ppm		96		200		8		GC-FID	ST	226-10	48		
o-Nitrotoluene (nitroaromatic compounds)	NIOSH 2005	2 ppm		96		200		8		GC-FID	ST	226-10	48		
p-Nitrotoluene (nitroaromatic compounds)	NIOSH 2005	2 ppm		96		200		8		GC-FID	ST	226-10	48		
Nitrotoluene (nitrobenzenes)	NIOSH 2005	2 ppm		96		200		8		GC-FID	ST	226-10	48		
Nitrous oxide	NIOSH 6600	25		3		100-4000		varies		P IR	SB	231-05	60		
trans-Nonachlor	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54		
Nonane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37
Nonane	Internal					10.6 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104 96
Nonane	Internal					10.6 ml/min		8-24 hrs		SE, GC	PS	690-105	96		
n-Nonane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	200		4		10-200		varies		GC-FID	ST	226-01	48		
Nonpolar organic compounds	NON 38	varies		varies				varies		GC	PUF	226-129	55		
Norethindrone	OSHA PV2070			480		2000		4		HPLC-UV	F/CST	225-802	105	C/HLD	225-1 114
Nuisance dust (Particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF 113
Nuisance dust (see dust, respirable nuisance)															
n-Octane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37
n-Octane	Internal					12.7 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104 96
n-Octane	Internal					12.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96		
n-Octane	OSHA 5000	500		12		50		4		GC-FID	ST	226-01	48		
n-Octane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	75	385	4	4	0-200	0-200	varies	varies	GC-FID	ST	226-01	48		
1-Octanethiol	NIOSH 2510	0.5 (15 min)		3		200		15		GC-FPDS	ST	226-35-03	48		
Octanol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37
Octyl alcohol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37
di-n-Octyl phthalate (DNOP)	OSHA 104			240		1000		4		GC-FID	ST	226-56	49		
Oil mist (mineral)	NIOSH 5026	5 mg/m³	10 mg/m³	480	30	1000	2000	8	15	IR	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-802 105
Oil mist (mineral)	OSHA ID 178SG	5 mg/m³		960		2000		8		GR & IR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1 114
Oil mist (total aerosol)	NON 46	5 mg/m³		varies		2000		varies		GR	IOM	225-70A	120	FLT	225-5-25 105
Oil mist (vegetable) (see Particulates Not Otherwise Regulated, total and respirable)															
Organic vapors (charcoal tube method)	ASTM D 3686			varies	varies	varies	varies	varies	varies	GC	ST	226-01	48		
Organic vapors (diffusive sampler method)	ASTM D 4597			varies	varies	varies	varies	varies	varies	GC	PS	575-001	or	PS	575-002 82
Organonitrogen pesticides (see specific compounds)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16 48
Organophosphorus pesticides (see specific compounds)	NIOSH 5600	varies		varies		varies		8		GC-FPD	ST	226-58	49		
Organotin compounds as Sn (see specific compounds)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114	F/CST	225-709 108
Organotin compounds as Sn (see specific compounds)	NIOSH 5526	0.1 mg/m³		15-75		250-1000		0.25-5		GC-FPD	ST	226-30-16	48		
Oxalic acid	OSHA PV2115	1 mg/m³		100		1000		100 min		IC	FLT C/HLD	225-701 225-1	108 114	CST	225-3LF 113

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Oxamyl (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48
Oxychlordane	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Ozone	OSHA ID 214	0.1		90-120	22.5	250-500	1500	180 min at 500 ml/min 480 min at 250 ml/min		IC	CF/CST	225-9014	68			
PAHs (Polynuclear Aromatic Hydrocarbons by GC, <i>see specific compounds</i>)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
PAHs (Polynuclear Aromatic Hydrocarbons by GC-MS, <i>see specific compounds</i>)	ASTM D 6209			350 m³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107
PAHs (Polynuclear Aromatic Hydrocarbons by HPLC, <i>see specific compounds</i>)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48
Palladium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			0.1-3300		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Paper fiber (cellulose) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Paper fiber (cellulose) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Paraffin wax fume	OSHA PV2047			100		1000		100 min		GC-FID	F/CST	225-706	108	C/HLD	225-1	114
Paraquat	NIOSH 5003	0.1 mg/m³		480		1000		8		HPLC-UV	FLT C/HLD	225-17-01 225-1	106 114	CST	225-2LF	113
Parathion	OSHA 62	0.1 mg/m³		480		1000		8		GC-FPD	ST	226-30-16	48			
Parathion (Organophosphorus Pesticides)	NIOSH 5600	0.05 mg/m³		240		1000		4		GC-FPD	ST	226-58	49			
Particulates not otherwise regulated (total dust)	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	FLT	225-802	105	C/HLD	225-1	114
Particulates not otherwise regulated, respirable	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Particulates not otherwise regulated, respirable fraction	OSHA PV2121	5 mg/m³		varies		varies		varies		GR	FLT CYC	225-803 225-105	105 124	C/HLD	225-1	114
Particulates, inorganic (bioaerosols)					15-150		15000		1-10 min	varies	STC	225-9820	112			
Particulates, respirable	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Particulates, total (<i>see specific compounds</i>)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Particulates, total (<i>see specific compounds</i>)	NIOSH 0501			120		2000		1		GR	AC CST	225-8516GLA 225-2LF	104 113	C/HLD	225-1	114
PCBs (42% Cl) (<i>see polychlorobiphenyls</i>)	NIOSH 5503															
PCBs (54% Cl) (<i>see polychlorobiphenyls</i>)	NIOSH 5503															
PCBs (polychlorinated biphenyls)	EPA TO-4A					200-280 L/min		24 hrs		varies	PUF	226-131	55	FLT	225-1808	107
Pentachlorobenzene	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Pentachlorobenzene (polychlorobenzenes)	NIOSH 5517			3-12		10-200		varies		GC-ECD	FLT ST	Special order 226-30-04	48	CST	Special order	
Pentachlorophenol	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
Pentachlorophenol	NIOSH 5512	0.5 mg/m³		480		1000		8		HPLC-UV	CST IMP FLT	225-3LF 225-36-2 225-5	113 70 100	SCN IT	225-26 225-22	115 70
Pentachlorophenol	OSHA 39	0.5 mg/m³		48		200		4		HPLC-UV	ST	226-97	50			
Pentaerythritol (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113
Pentaerythritol (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114
Pentamidine isethionate	NIOSH 5032			960		2000		8		HPLC-FD	CST C/HLD	225-4 225-1	113 114	FLT	225-5-37-P	105
n-Pentane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
n-Pentane	Internal					14.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
n-Pentane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	120	610	4	4	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
2,3-Pentanedione	OSHA 1016	0.5		10	3	50	200	200 (min)	15	GC-FID	ST	226-183	51			
2-Pentanone (Ketones I)	NIOSH 2555			1-10		10-200		varies		GC-FID	ST	NA SKC				
2-Pentanone (methyl propyl ketone)	NIOSH 1300	150		10		200		50 (min)	15	GC-FID	ST	226-01	48			
2-Pentanone (methyl propyl ketone) (Ketones I)	NIOSH 1300	150		10		20(50)		8(3.3)		GC-FID	ST	226-01	48			

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Peracetic acid and Hydrogen peroxide	NON 57			15		1000 π		15		MAS/HPLC-UV	CF/CST ST	225-9030 226-199-UC	68 52	ST	226-193-UC	or		
Peracetic acid	OSHA PV2321	0.4		15		1000		15		GC-FID	CF/CST	225-9037	68	IMP	N/A SKC			
Perchloric acid	OSHA ID 115SG			120		500		4		CLR	IMP	225-36-2	70	IT	225-22	70		
Perchloroethylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Perchloroethylene	Indoor					13.1 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or		
Perchloroethylene	Internal					0.55 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96		
Perchloroethylene	Internal					13.1 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96					
Perchloroethylene (tetrachloroethylene)	OSHA 1001	100	200 (C)			13.06		8 5		GC-FID	PS	575-002	82					
Perchloroethylene (tetrachloroethylene)	OSHA 1001	100	200 (C)	12	0.75	50	50	4	5	GC-FID	ST	226-01	48					
Perchloroethylene (tetrachloroethylene) (hydrocarbons, halogenated)	NIOSH 1003	LFC		3		10-200		varies		GC-FID	ST	226-01	48					
Perchloroethylene (tetrachloroethylene) (portable GC)	NIOSH 3704	LFC		1		20-5000		varies		P GC	SB PT	232-01 NA SKC	or with	SB SBLK	249-01-PP NA SKC	with		
Perlite (< 1% Quartz) (see Particulates Not Otherwise Regulated, total and respirable)																		
cis-Permethrin	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
trans-Permethrin	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Peroxyacetic acid (peracetic acid) & Hydrogen peroxide	NON 57			15		1000 π		15		MAS/HPLC-UV	CF/CST ST	225-9030 226-199-UC	68 52	ST	226-193-UC	or		
Pesticides	EPA IP-8					1-5 L/min		4-24 hrs		GC-ECD	PUF	226-92	or	PUF	226-124	54		
Pesticides	EPA TO-10A					1-5 L/min		4-24 hrs		GC-ECD	PUF	226-92	or	PUF	226-124	54		
Pesticides, carbamate	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Pesticides, organochlorine	ASTM D 4861			240-7200		1000-5000		4-24		varies	PUF	226-92	or	PUF	226-124	54		
Pesticides, organochlorine	EPA TO-4A					200-280 L/min		24 hrs		varies	PUF	226-131	55	FLT	225-1808	107		
Pesticides, organonitrogen (see specific compounds)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48		
Pesticides, organophosphorus	ASTM D 4861			240-7200		1000-5000		4-24		varies	PUF	226-92	or	PUF	226-124	54		
Pesticides, pyrethrin	ASTM D 4861			240- 7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Pesticides, triazine	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV or GC-ECD	PUF	226-92	54					
Petroleum distillate (naphthas)	NIOSH 1550	350 mg/m³ 1800 mg/m³	3.6	1.5		20	100	3	15	GC-FID	ST	226-01	48					
Petroleum distillate fractions (PDF)	OSHA 48	500		3		200		15 min		GC-FID	ST	226-01	48					
Petroleum ether (benzin) (naphthas)	NIOSH 1550	350 mg/m³ 1800 mg/m³	3	1.5		20(50)	100	2.5(1)	15	GC-FID	ST	226-01	48					
Petroleum naphtha (naphthas)	NIOSH 1550	350 mg/m³ 1800 mg/m³	3	1.5		20(50)	100	2.5(1)	15	GC-FID	ST	226-01	48					
Phenanthrene	OSHA 58			960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113		
Phenanthrene (Phenanthracene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (cyclohexane soluble fraction)	1-480			1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49					
Phenanthrene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209		350 m³ (max)			225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107		
Phenanthrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515		480			2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Phenanthrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506		480			2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Phenol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Phenol	EPA TO-8			< 80 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70		
Phenol	OSHA 32	5		24		100		4		HPLC-UV	ST	226-95	50					
Phenol (cresols)	NIOSH 2546	5	15.6 (15 min)	24	3	100	200	4	15	GC-FID	ST	226-95	50					
Phenolics (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Phenothiazine	OSHA PV2048			100		1000		1		GC-NPD	F/CST	225-706	108	C/HLD	225-1	114	
Phenyl ether	NIOSH 1617	1		48		100		8		GC-FID	ST	226-01	48				
Phenyl ether	OSHA PV2022	1		20		200		100 min		GC-FID	ST	226-95	50				
Phenyl ether-biphenyl mix	NIOSH 2013	1		24		50		8		GC-FID	ST	226-10	48				
Phenyl glycidyl ether	NIOSH 1619		1 (15 min)		80		1000		80	GC-FID	ST	226-01	48				
Phenyl hydrazine	NIOSH 3518		0.14 (120 min)		120		1000		120	VAS	IMP	225-36-2	70	IT	225-22	70	
Phenyl mercaptan	OSHA PV2075			20		200		100 min		GC-FID	CF/CST	225-9007	68	C/HLD	225-1	114	
N-Phenyl-1-naphthylamine	OSHA 96			240		2000		4		HPLC-FD	FLT C/HLD	225-703 ‡ 225-1	108 114	CST	225-3-23	113	
N-Phenyl-2-naphthylamine	OSHA 96			240		1000		4		HPLC-FD	FLT C/HLD	225-703 ‡ 225-1	108 114	CST	225-3-23	113	
m-Phenylenediamine	OSHA 87			100		1000		100 min		HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114	
o-Phenylenediamine	OSHA 87			100		1000		100 min		HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114	
p-Phenylenediamine	OSHA 87	0.1 mg/m³		100		1000		100 min		HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114	
o-Phenylphenol	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				
Phorate	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54				
Phorate (Organophosphorus Pesticides)	NIOSH 5600	0.05 mg/m³	0.2 mg/m³	240		1000		4		GC-FPD	ST	226-58	49				
Phosdrin (mevinphos) (Organophosphorus Pesticides)	NIOSH 5600	0.01	0.03	120	15	1000	1000	2	15	GC-FPD	ST	226-58	49				
Phosgene	EPA TO-6			< 50 L		100-1000 ml/min				HPLC-UV	IMP	225-36-1	70	IT	225-22	70	
Phosgene	OSHA 61	0.1		240		1000		4		GC-NPD	ST	226-117	50				
Phosgene & chloroformates	NON 40			24		50		8		GC-FPD	ST	226-153	51				
Phosphine	NIOSH 6002	0.3	1	12	3	100	200	8	15	UV-VIS	ST	226-165A ††	51				
Phosphine	OSHA 1003	0.3		240	30	1000	2000	4	15	ICP-AES	CF/CST	225-9018 ††	68	C/HLD	225-1	114	
Phosphoric acid	NIOSH 7908	1 mg/m³	3 mg/m³	960	30	2000	2000	8	15	IC-CD	CF/CST	225-9033	68	C/HLD	225-1	114	
Phosphoric acid	OSHA ID 111	1 mg/m³		960	30	2000	2000	8	15	IC	F/CST	225-3-01	100	C/HLD	225-1	114	
Phosphoric acid	OSHA ID 16SSG	1 mg/m³		960	30	2000	2000	8	15	IC	ST	226-10-03	48				
Phosphorous (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.1 mg/m³		250-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Phosphorus	NIOSH 7905	0.1 mg/m³		12		200		1		GC-FPD	ST	226-35-03	48				
Phosphorus (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.1 mg/m³		9-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Phosphorus (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.1 mg/m³		25-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105	
Phosphorus (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.1 mg/m³		25-200		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Phosphorus (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170	
Phosphorus pentasulfide	OSHA ID 128SG	1 mg/m³		960	30	2000	2000	8	15	IC	F/CST	225-802	105	C/HLD	225-1	114	
Phosphorus pentoxide	OSHA ID 111			480		1000		8		IC	F/CST	225-3-01	100	C/HLD	225-1	114	
Phosphorus trichloride	NIOSH 6402	0.2	0.5	24		200		2		VAS	IMP	225-36-2	70	IT	225-22	70	
Phthalates (see specific compounds)																	
Phthalic anhydride	OSHA 90	2		75		1000		1.25		HPLC-UV	CF/CST	225-9034	68	C/HLD	225-1	114	
Picloram (tordon) (total dust)	OSHA PV2049	15 mg/m³		60		1000		1		GR	F/CST	225-803	105	C/HLD	225-1	114	
Picloram (tordon) (respirable dust)	OSHA PV2049	5 mg/m³		varies		varies		varies		GR	FLT CYC	225-706 225-105	108 124	C/HLD	225-1	114	
alpha-Pinene	Internal					11.3 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-104	96	
alpha-Pinene	Internal					11.3 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
alpha-Pinene (terpenes)	NIOSH 1552			24		50		8		GC-FID	ST	226-01	48				
beta-Pinene (terpenes)	NIOSH 1552			24		50		8		GC-FID	ST	226-01	48				
Piperonyl butoxide	OSHA PV2110			30		1000		30 min		HPLC-UV	ST	226-30-16	48				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Pirimiphos methyl	OSHA PV2071			120		1000		2		GC-ECD	ST	226-30-16	48					
Plaster of Paris (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Plaster of Paris (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Platinum	OSHA ID 130SG			90		1000		1.5		AA	F/CST	225-3-01	100	C/HLD	225-1	114		
Platinum (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			200- 25,000,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Platinum (as Pt), metal	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Platinum (as Pt), soluble salts	OSHA ID 121	2 µg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
PM2.5	EPA IP-10A					9 L/min		24 hrs		GR	CI FLT	225-370 225-1709	132 106	FLT	225-17-21	106		
PM2.5	EPA IP-10A					10 L/min		24 hrs		GR	PEM	761-203B	130	FLT	225-1709	106		
PNAs (Polynuclear Aromatic Hydrocarbons by GC, <i>see specific compounds</i>)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
PNAs by HPLC (<i>see specific compounds</i>)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
PNAs selected	OSHA 58			960		2000		8		GR & HPLC- FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113		
Pollen (in air)				15-150		15000		1-10 min		varies	STC	225-9820	112					
Pollen (in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A ◊	136		
Polychlorinated biphenyls	ASTM D 4861			240-7200		1000-5000		4-24		varies	PUF	226-92	or	PUF	226-124	54		
Polychlorinated biphenyls	NIOSH 5503	0.001 mg/ m³ (10 hrs)		48		100(200)		8(4)		GC-ECD	FLT ST	225-16 226-39	108 49	CST	225-32	114		
Polychlorobenzenes (<i>see specific compounds</i>)	NIOSH 5517	varies		varies		varies		8		GC-ECD	FLT CST	Special order Special order		ST C/HLD	226-30-04 225-1	48 114		
Polychlorobiphenyls (42% Cl)	NIOSH 5503	0.001 mg/ m³ (10 hrs)		1L (@0.5mg/m³) -50		50-200		varies		GC-ECD	FLT ST	225-16 226-39	108 49	CST	225-32	114		
Polychlorobiphenyls (54% Cl)	NIOSH 5503	0.001 mg/ m³ (10 hrs)		1L (@0.5mg/m³) -50		50-200		varies		GC-ECD	FLT ST	225-16 226-39	108 49	CST	225-32	114		
Polycyclic aromatic compounds (PACs), total	NIOSH 5800			960	30	2000	2000	8	15	FLUOR	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Polycyclic aromatic hydrocarbons (PAHs)	EPA IP-7			30,000 L		20 L/min				GC-FID, -MS, HPLC	PUF	226-131	55	FLT	225-1808	107		
Polycyclic aromatic hydrocarbons (PAHs)	EPA TO-13A					220 L/min		24 hrs		GC-MS	PUF	226-131	55	FLT	225-1808	107		
Polynuclear aromatic hydrocarbons (polynuclear aromatic hydrocarbons by GC, <i>see specific compounds</i>)	NIOSH 5515	varies		480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Polynuclear aromatic hydrocarbons (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209	varies		350 m³ (max)		225 L/min		4-24		GC-MS	PUF	226-131	55	FLT	225-1808	107		
Polynuclear aromatic hydrocarbons by HPLC (<i>see specific compounds</i>)	NIOSH 5506	varies		480		2000		4		HPLC-UV	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48		
Portland cement (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Portland cement (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Portland cement (respirable dust) (<i>see respirable dust</i>)	OSHA ID 142 (v4)																	
Portland cement (total dust)	OSHA ID 207	15 mg/m³		240		1000		4		XRD	F/CST	225-803	105	C/HLD	225-1	114		
Potassium & compounds	OSHA ID 121			960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Potassium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Potassium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates							
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Potassium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300			5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Potassium chromate (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m ³		960		2000		8		IC-UV	F/CST	225-802	105	C/HLD	225-1	114	
Potassium cyanide (cyanides)	NIOSH 7904		5 mg/m ³ (10 min)		15		1000		15	ISE	FLT IMP C/HLD	225-17-32 Δ 225-36-2 225-1	106 70 114	CST IT	225-2LF 225-22	113 70	
Potassium hydroxide (alkaline dust)	NIOSH 7401			960		2000		8		TITRA	F/CST	225-1715	106	C/HLD	225-1	114	
Potassium hydroxide (as K)	OSHA ID 121				10		2000		5	AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100	
Progesterone	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114	
Propane	OSHA PV2077	1000		5		100		50 min		GC-FID	ST	NA SKC					
1,2,3-Propanetriol trinitrate	OSHA 43			15		1000		15 min		HPLC-UV	ST	226-35-03	48				
n-Propanol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Propargyl alcohol	OSHA 97			6		50		2		GC-ECD	ST	226-178	51				
Propazine	ASTM D 4861			240-7200		1000-5000		4-24		GC-NPD	PUF	226-92	54				
Propham (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48	
Propionaldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50	
Propionaldehyde (Aldehydes, Screening)	NIOSH 2539			5		20		4		GC-FID & GC-MS	ST	226-118	50				
Propionic acid	OSHA PV2293			18		2000		90 min		IC	ST	226-15	48				
Propionitrile	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Propoxur (Baygon)	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				
Propoxur (Baygon)	OSHA PV2007			60		1000		1		HPLC-UV	ST	226-30-16	48				
Propoxur (Organonitrogen Pesticides)	NIOSH 5601	0.5 mg/m ³		240		1000		4		HPLC-UV	ST	226-58	or	ST	226-30-16	48	
n-Propyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
n-Propyl acetate (Esters I)	NIOSH 1450	200	250	1-10	1-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
Propyl alcohol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
n-Propyl alcohol	OSHA 5001	200		12		4				GC-FID	ST	226-82	50				
n-Propyl alcohol (alcohols combined)	NIOSH 1405	200	250 (skin)	1-10	1-10	10-200	10-200	varies	varies	GC-FID	ST	226-01	48				
n-Propyl alcohol (alcohols II)	NIOSH 1401	200	250	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48				
n-Propyl benzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
Propylene dichloride (1,2-dichloro propane)	NIOSH 1013	LFC		3		20		2.5		GC-ECN	ST	226-81A	49				
Propylene glycol	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49				
Propylene glycol	OSHA PV2051			60	15	1000	1000	1	15	GC-FID	ST	226-57	49				
Propylene glycol monomethyl ether (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A	49				
Propylene glycol monomethyl ether acetate (glycol ethers)	NIOSH 2554			3-25		100-200		varies		GC-FID	ST	226-81A	49				
Propylene oxide (1, 2-epoxypropane)	NIOSH 1612	LFC		5		20		4.2		GC-FID	ST	226-01	48				
Propylene oxide (1, 2-epoxypropane)	OSHA 88	100		5	5	100	1000	50 min	5	GC-FID	ST	226-81A	49				
Pyrene	OSHA 58			960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT C/HLD	225-7 225-1	108 114	CST	225-2LF	113	
Pyrene (benzo[def]phenanthrene) (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m ³ (cyclohexane soluble fraction)		1-480		1000		1 min-8 hrs		GC-MS-SIM	ST	226-57	49				
Pyrene (Polynuclear Aromatic Hydrocarbons by GC-MS)	ASTM D 6209			350 m ³ (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107	
Pyrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST C/HLD	225-1713 225-1	106 114	ST	226-30-04	48	
Pyrethrin pesticides (<i>see specific compounds</i>)	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
Pyrethrum	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Pyrethrum	NIOSH 5008	5 mg/m³		100		1000		2		HPLC-UV	F/CST SP	225-709 225-27	108 115	C/HLD	225-1	114		
Pyrethrum	OSHA 70	5 mg/m³		60		1000		1		GC-ECD	ST	226-30-16	48					
Pyridine	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Pyridine	NIOSH 1613	5		48		100		8		GC-FID	ST	226-01	48					
Pyridine	OSHA PV2295	5		10		100		100 min		GC-FID	ST	226-95	50					
Quartz (respirable) in coal dust, (silica in coal mine dust)	NIOSH 7603	0.05 mg/m³		300-1000		2000-4000		varies		IR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-309	114 113		
Quartz (see silica, respirable crystalline)	OSHA ID 142 (v4)																	
Quartz (silica, crystalline [respirable]) by XRD	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST C/HLD	225-803 225-1	105 114	CYC	225-01-02	125		
Quartz (silica, crystalline by IR)	NIOSH 7602	0.05 mg/m³		1000		2000-4000		varies		IR	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114		
Radon progeny (on dust, in mines)	NON 56			5		2000		5 min		DRI	FLT	225-702	108	CST	225-1107	114		
Resmethrin	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Resmethrin	OSHA PV2052			60		1000		1		HPLC-UV	ST	226-30-16	48					
Resorcinol	NIOSH 5701	10		120		500		4		GC-FID	ST	226-57	49					
Respirable Dust using Aluminum Cyclone	OSHA ID 142 (v4)	50 µg/m³		1200		2500		8		GR & XRD	FLT C/HLD	225-5-37-P 225-1	105 114	CST CYC	225-3050LF 225-01-02	113 125		
Respirable Dust using GS-3 Cyclone	OSHA ID 142 (v4)	50 µg/m³		1320		2750		8		GR & XRD	FLT C/HLD	225-5-37-P 225-1	105 114	CST CYC	225-3050LF 225-100	113 124		
Respirable Dust using PPI Samplers	OSHA ID 142 (v4)	50 µg/m³		960		2000		8		GR & XRD	FLT	225-5-37-P	105	PPI	225-385	126		
Rhodamine B	OSHA PV2072			240		1000		4		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114		
Ribavirin	NIOSH 5027			480		1000		8		HPLC-UV	F/CST	225-709	108	C/HLD	225-1	114		
Ronnel	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54					
Ronnel	OSHA PV2054	15 mg/m³		60		1000		1		GC-FPD	ST	226-30-16	48					
Ronnel (Organophosphorus Pesticides)	NIOSH 5600	10 mg/m³		60		1000		1		GC-FPD	ST	226-58	49					
Rotenone	NIOSH 5007	5 mg/m³		120		1000		2		HPLC-UV	FLT C/HLD	225-17-01 225-1	106 114	CST	225-4	113		
Rouge (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Rouge (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Rubber solvent (naphthas)	NIOSH 1550	350 mg/m³ 1800 mg/m³	10	1.5	20(50)	100	8(3.3)	15		GC-FID	ST	226-01	48					
Safrotin	OSHA PV2050			60		1000		1		GC-ECD	F/CST	225-709	108	C/HLD	225-1	114		
Scopolamine methyl nitrate	OSHA PV2144			120		1000		2		HPLC-UV	F/CST C/HLD	225-709 225-1	or 114	F/CST	225-706	108		
Selenium	OSHA ID 121	0.2 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Selenium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.2 mg/m³		2-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Selenium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.2 mg/m³		13-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105		
Selenium (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.2 mg/m³		8-250,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Selenium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.2 mg/m³		13-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Selenium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Sevin (see carbaryl)																		
Silica (quartz) in coal dust (quartz in coal mine dust by IR)	NIOSH 7603	0.05 mg/m³		300-1000		2000-4000		varies		IR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Silica, amorphous (respirable)	NIOSH 7501	6 mg/m³		50-400		2500		varies		XRD	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114		
Silica, crystalline (respirable) by XRD	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST C/HLD	225-803 225-1	105 114	CYC	225-01-02	125		
Silica, crystalline by IR	NIOSH 7602	0.05 mg/m³		1000		2000-4000		varies		IR	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates								
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Silica, fused (<i>see silica, respirable crystalline</i>)	OSHA ID 142 (v4)																	
Silica, respirable crystalline (as quartz, cristobalite, tridymite) using Aluminum Cyclone	OSHA ID 142 (v4)	50 µg/m³		1200		2500		8		XRD	FLT C/HLD	225-5-37-P 225-1	105 114	CST CYC	225-3050LF 225-01-02	113 125		
Silica, respirable crystalline (as quartz, cristobalite, tridymite) using GS-3 Cyclone	OSHA ID 142 (v4)	50 µg/m³		1320		2750		8		XRD	FLT C/HLD	225-5-37-P 225-1	105 114	CST CYC	225-3050LF 225-100	113 124		
Silica, respirable crystalline (as quartz, cristobalite, tridymite) using PPI Samplers	OSHA ID 142 (v4)	50 µg/m³		960		2000		8		XRD	FLT	225-5-37-P	105	PPI	225-385	126		
Silicon (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Silicon (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Silicon carbide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Silicon carbide (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Silver (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.01 mg/m³		6-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Silver (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			250-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105		
Silver (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	0.01 mg/m³ (metal, soluble)		250-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Silver (Elements on Wipes)	NIOSH 9102		wipe							ICP-AES	W	225-2414	170	TMP	225-2415	170		
Silver, metal & soluble compounds (as Ag)	OSHA ID 121	0.01 mg/m³		960		2000		8		AA or AES	F/CST F/CST C/HLD	225-508 225-3-01 225-1	or or 114	F/CST F/CST	225-802 225-8408	or 100		
Silver, metal & soluble compounds (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	0.01 mg/m³		960		2000		8		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Simazine	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Simazine	NIOSH 5602			480		1000		8		GC-ECD	ST	226-58	49					
Sodium azide	OSHA ID 211			5		1000		5		IC-UV	ST CST C/HLD	226-55 225-2LF 225-1	49 113 114	FLT SPC	225-5-37-P 225-23	105 115		
Sodium bisulfite	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Sodium fluoride (fluorides)	NIOSH 7902	2.5 mg/m³		480	30	1000	2000	8	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114		
Sodium fluoride (fluorides)	NIOSH 7906	2.5 mg/m³		960	30	2000	2000	8	15	IC-CD	CF/CST	225-9031	68	C/HLD	225-1	114		
Sodium hexafluoroaluminate (fluorides)	NIOSH 7902	2.5 mg/m³		480	30	1000	2000	8	15	ISE	CF/CST	225-9001	68	C/HLD	225-1	114		
Sodium hexafluoroaluminate (fluorides)	NIOSH 7906	2.5 mg/m³		960		2000		8		IC-CD	CF/CST	225-9031	68	C/HLD	225-1	114		
Sodium hydroxide	OSHA ID 121	2 mg/m³		960	30	2000	2000	8	15	AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Sodium hydroxide (alkaline dust)	NIOSH 7401	2 mg/m³ (15 min)		360		1500		4		TITRA	F/CST	225-1715	106	C/HLD	225-1	114		
Sodium metabisulfite	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Sodium polyacrylate (<i>see super absorbent polymer</i>)																		
Solanesol (environmental tobacco smoke, respirable particles)	ASTM D 6271			150-3600		2500		1-24		HPLC-UV	FLT CYC	225-17-32 225-01-02	106 125	CST C/HLD	225-3LF 225-1	113 114		
Solder fume (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206			480		2000		4		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Soot (<i>see elemental carbon</i>)	NIOSH 5040									TOA-FID								
Spores (bacterial, fungal) (in air)				15-150		15000		1-10 min		varies	STC	225-9820	112					
Spores (bacterial, fungal) (in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A	136		
Starch (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Starch (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Starch (<i>see Particulates Not Otherwise Regulated, total and respirable</i>)																		
Stoddard solvent	OSHA 48	500		3		200		15 min		GC-FID	ST	226-01	48					
Stoddard solvent (naphthas)	NIOSH 1550	350 mg/m³ 1800 mg/m³	10	1.5		20(50)	100	8(3.3)	15	GC-FID	ST	226-01	48					

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞																
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
Strontium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Strontium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			10-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105		
Strontium (Elements by ICP HNO ₃ Digestion)	NIOSH 7303			300-100,000,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Strontium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	0.5 mg/m ³		10-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Strontium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Strychnine	NIOSH 5016	0.15 mg/m ³ (10 hrs)		180		1500		2		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114		
Styrene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Styrene	Internal					13.7 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or		
Styrene	Internal					13.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96					
Styrene (phenylethylene)	NON 54			10	3	20	200	8	15	GC-FID	ST	226-81A	49					
Styrene (phenylethylene)	OSHA 1014	100	200 (C)			13.55	13.55	8	15	HPLC-UV	PS	575-006	82					
Styrene (phenylethylene)	OSHA 89	100	200 (C)	12	0.75	50	50	4	15	GC-FID	ST	226-73	49					
Styrene (phenylethylene) (Hydrocarbons, Aromatic)	NIOSH 1501	50	100	1-14	1-14	10-1000	10-1000	varies	varies	GC-FID	ST	226-01	48					
Sucrose (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113		
Sucrose (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114		
Sulfur (<i>see Particulates Not Otherwise Regulated, total and respirable</i>)																		
Sulfur dioxide	NIOSH 6004	2	5	180	15	1000	1000	3	15	IC	CF/CST	225-9005	68	C/HLD	225-1	114		
Sulfur dioxide	OSHA 1011	5 ppm		12	7.5	50	500	4	15	IC	CF/CST	225-9005	68					
Sulfur hexafluoride by portable GC	NIOSH 6602	1000		varies		20-100		varies		P GC-ECD	SB	232-03	or	SB	231-03	60		
Sulfur tetrafluoride	OSHA ID 110			5		1000		5		ISE	IMP	225-36-2	70	IT	225-22	70		
Sulfuric acid	NIOSH 7908	1 mg/m ³		960		2000		8		IC-CD	CF/CST	225-9033	68	C/HLD	225-1	114		
Sulfuric acid	NIOSH 7908	0.2 mg/m ³ Σ		960		2000		8		IC	PPI IS	225-381 225-388	128 126	FLT SP	225-1827 225-27	107 115		
Sulfuric acid	OSHA ID 113	1 mg/m ³		480		2000		4		IC	F/CST	225-3-01	100	C/HLD	225-1	114		
Sulfuric acid	OSHA ID 113	0.2 mg/m ³ Σ		480		2000		4		IC	PPI IS	225-381 225-388	128 126	FLT SP	225-5 225-27	100 115		
Sulfuric acid	OSHA ID 165SG	1 mg/m ³		96		200		8		IC	ST	226-10-03	48					
Sulfuric acid mist	ASTM D 4856			40		1000		40 min		IC	F/CST	225-3-01	100	C/HLD	225-1	114		
Sulfuryl fluoride	NIOSH 6012	5	10	1.3-10		50-100		varies		IC-CD	ST	226-16	48					
Sulprofos	OSHA PV2037			240		1000		4		GC-FPD	ST	226-30-16	48					
Sulprofos (Organophosphorus Pesticides)	NIOSH 5600	1 mg/m ³		240		1000		4		GC-FPD	ST	226-58	49					
Super absorbent polymers	NIOSH 5035			960		2000		8		ICP-AES or AA	F/CST	225-802	105	C/HLD	225-1	114		
Systox (<i>see demeton</i>)																		
Talc (containing asbestos) (<i>see asbestos</i>)	OSHA ID 160																	
Talc (respirable, no asbestos)	OSHA PV2121	20 mppcf		varies		varies		varies		GR	CYC C/HLD	225-105 225-1	124 114	F/CST	225-803	105		
2,4-TDI (toluene diisocyanate)	ASTM D 5932			15		1000		15		HPLC-UV-FD	CF/CST	225-9022 ▼	68	C/HLD	225-1	114		
2,4-TDI (toluene diisocyanate)	NIOSH 5522	LFC		360	20	1000	2000	6	10	HPLC-FD	IMP	225-36-1	70	IT	225-22	70		
2,6-TDI (toluene diisocyanate)	ASTM D 5932			15		1000		15		HPLC-UV-FD	CF/CST	225-9022 ▼	68	C/HLD	225-1	114		
2,6-TDI (toluene diisocyanate)	NIOSH 5522	LFC		360	20	1000	2000	6	10	HPLC-FD	IMP	225-36-1	70	IT	225-22	70		
2,4-TDI (Toluene diisocyanate) (isocyanates)	OR-OSHA 1010	0.02	0.005	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70		
2,6-TDI (Toluene diisocyanate) (isocyanates)	OR-OSHA 1010	0.02	0.005	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates								
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time										
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number							
2, 4-TDI (toluene diisocyanate) (isocyanates, total)	NIOSH 5525	LFC		1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120		
2, 6-TDI (toluene diisocyanate) (isocyanates, total)	NIOSH 5525	LFC		1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120		
Tellurium	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Tellurium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			7-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114		
Tellurium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.1 mg/m³		25-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105		
Tellurium (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.1 mg/m³		125-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Tellurium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.1 mg/m³		25-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114		
Tellurium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170		
Temephos (respirable dust)	OSHA PV2056	5 mg/m³		varies		varies		varies		GC-FPD	F/CST	225-706	108	C/HLD	225-1	114		
Temephos (total dust)	OSHA PV2056	15 mg/m³		60		1000				HPLC-UV	F/CST	225-802	105	C/HLD	225-1	114		
Terbufos (Organophosphorus Pesticides)	NIOSH 5600			240		1000		4		GC-FPD	ST	226-58	49					
Terbutiuron	ASTM D 4861			240-7200		1000-5000		4-24		HPLC-UV	PUF	226-92	54					
Terpenes (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52					
Terpenes (see specific compounds)	NIOSH 1552			2-30		10-200		varies		GC-FID	ST	226-01	48					
o-Terphenyl	NIOSH 5021	0.5		2-30		1000-3000		15		GC-FID	F/CST	225-1713	106	C/HLD	225-1	114		
Testosterone	OSHA PV2001			240		1000		4		HPLC-UV	F/CST	225-706	108	C/HLD	225-1	114		
1,1,2,2-Tetrabromoethane	NIOSH 2003			50-100		200-1000		varies		GC-FID	ST	226-10	48					
Tetrabutyltin (organotin compounds as Sn)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114	F/CST	225-709	108		
1,1,2,2-Tetrachloro-1,2-difluoroethane	NIOSH 1016	500		0.5 L (@500ppm) - 2		10-35		varies		GC-FID	ST	226-01	48					
1,1,1,2-Tetrachloro-2,2-difluoroethane	NIOSH 1016	500		0.5 L (@500ppm) - 2		10-35		varies		GC-FID	ST	226-01	48					
1,2,3,4-Tetrachlorobenzene	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-124	54					
1,2,4,5-Tetrachlorobenzene (polychlorobenzenes)	NIOSH 5517			44997		10-200		varies		GC-ECD	FLT ST C/HLD	Special order 226-30-04 225-1	48 114	CST	Special order			
1,1,1,2-Tetrachloroethane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
1,1,2,2-Tetrachloroethane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
1,1,2,2-Tetrachloroethane	Internal					11.8 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or		
1,1,2,2-Tetrachloroethane	Internal					11.8 ml/min		8-24 hrs		SE, GC	PS	690-105	96					
1,1,2,2-Tetrachloroethane	NIOSH 1019	1		3-30		10-200		varies		GC-FID	ST	226-81A	49					
1,1,2,2-Tetrachloroethane	NIOSH 2562	1		3-30		10-200		varies		GC-FID	ST	NA SKC						
Tetrachloroethylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37		
Tetrachloroethylene	Indoor					13.1 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or		
Tetrachloroethylene	Internal					0.55 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96		
Tetrachloroethylene	Internal					13.1 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96					
Tetrachloroethylene (hydrocarbons, halogenated)	NIOSH 1003	25	100 (C)	3		10-200		15 min-5 hrs		GC-FID	ST	226-01	48					
Tetrachloroethylene (perchloroethylene)	OSHA 1001	100	200 (C)			13.06		8	5	GC-FID	PS	575-002	82					
Tetrachloroethylene (perchloroethylene)	OSHA 1001	100	200 (C)	12	0.25	50	50	4	5	GC-FID	ST	226-01	48					
Tetrachloroethylene (perchloroethylene) (portable GC)	NIOSH 3704	LFC		1		20-5000		varies		P GC	SB PT	232-01 NA SKC	or with	SB SBLK	249-01-PP NA SKC	with		
2,3,4,6-Tetrachlorophenol	OSHA 45			48		200		4		HPLC-UV	ST	226-97	50					
Tetraethyl lead (as Pb)	NIOSH 2533	0.075 mg/m³		30-200		10-1000				GC-PID	ST	226-30-04	48					
Tetraethyl pyrophosphate	NIOSH 2504	0.05 mg/m³		20 (@ 0.05 mg/m³)-49		10-200		varies		GC-FPD	ST	NA SKC						

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞														
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Tetraethyl tin	OSHA 110	0.1 mg/m³		48	3	200	200	4	15	GC-FID	ST	226-95	50			
Tetraethylene glycol	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49			
Tetrahydrofuran	Internal					17.7 ml/min		8-24 hrs		TD, GC	PS	690-101	or PS 690-103	96		
Tetrahydrofuran	Internal					17.7 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
Tetrahydrofuran	NIOSH 1609	200	250	1-9		10-200		varies	15	GC-FID	ST	226-01	48			
Tetrahydrofurfuryl acrylate	OSHA PV2131			48		200		4		GC-FID	ST	226-110	50			
Tetrakis(hydroxymethyl)phosphonium chloride	NIOSH 5046			1-480		1000-1700		varies		HPLC-UV	CF/CST	225-9003	68			
Tetramethyl lead (as Pb)	NIOSH 2534	0.075 mg/m³		15-100		10-200				GC-PID	ST	226-30-06	48			
Tetramethyl thiouram disulfide (see thiram)																
Tetramethyl thiourea	NIOSH 3505			50 (@0.3 mg/m³ to 250		200-1000		varies		VAS	IMP	225-36-1	70 IT 225-22	70		
Tetramethyl tin	OSHA PV2057	0.1 mg/m³		20		200		100 min		GC-FID	ST	226-01	48			
Tetranitromethane	NIOSH 3513	1		20-250		500-1000		varies		GC-NPD	IMP	225-36-1	70 IT 225-22	70		
Tetrasodium pyrophosphate	NIOSH 0500	5 mg/m³		7-133		1000-2000		varies		GR & IC	FLT	225-8204A	105 C/HLD 225-1	114		
Tetrasodium pyrophosphate	OSHA ID 121			960		2000		8		AA or AES	FLT CST	225-5-37-P 225-2LF	105 113 C/HLD 225-1	114		
Thallium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.1 mg/m³ (skin, soluble)		25-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or F/CST 225-803	105		
Thallium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.1 mg/m³ (skin)		7-2000		1000-4000		varies		ICP-AES	SC	225-8517	101 C/HLD 225-1	114		
Thallium (Elements by ICP HNO₃ Digestion)	NIOSH 7303	0.1 mg/m³ (skin, soluble)		35-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Thallium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	0.1 mg/m³ (skin, soluble)		25-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Thallium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170 TMP 225-2415	170		
Thallium (soluble compounds) (as TI)	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Thiobencarb (Organonitrogen Pesticides)	NIOSH 5601			240		1000		4		HPLC-UV	ST	226-58	or ST 226-30-16	48		
Thiophanate-methyl	OSHA PV2058			240		1000		4		HPLC-UV	F/CST	225-709	108 C/HLD 225-1	114		
Thiophanate-methyl in air	NIOSH 5606			20-480		100-1000		varies		HPLC-UV	ST	226-58	49			
Thiourea	OSHA PV2059			480		2000		4		HPLC-UV	F/CST	225-706	108 C/HLD 225-1	114		
Thiram	NIOSH 5005	5 mg/m³		10-400		1000-4000		varies		HPLC-UV	FLT C/HLD	225-17-01 225-1	106 114 CST 225-2LF	113		
Tin (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	2 mg/m³		1-2000		1000-4000		varies		ICP-AES	SC	225-8517	101 C/HLD 225-1	114		
Tin (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	2 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or F/CST 225-803 ¥	105		
Tin (Elements by ICP HNO₃ Digestion)	NIOSH 7303	2 mg/m³		1-25,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Tin (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	2 mg/m³		5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Tin (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	2 mg/m³		480		2000		4		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Tin (inorganic compounds, except oxides) (as Sn)	OSHA ID 121	2 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Tin (organic compounds) (as Sn) (organotin compounds)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114 F/CST 225-706	108		
Tin oxide ((Stannous Oxide) as Sn)	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Titanium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306			Varies		1000-4000		varies		ICP-AES	SC	225-8517	101 C/HLD 225-1	114		
Titanium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or F/CST 225-803 ¥	105		
Titanium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			0.1-10,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Titanium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300			5-100		1000-4000		varies		ICP-AES	F/CST	225-3-01	100 C/HLD 225-1	114		
Titanium dioxide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125 C/HLD 225-1	114 113		
Titanium dioxide (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113 C/HLD 225-1	114		
Titanium dioxide (total dust)	OSHA PV2121	15 mg/m³		480-960		2000		4-8		GR	F/CST	225-802	105 C/HLD 225-1	114		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
TNT (2,4,6-trinitrotoluene)	OSHA 44	1.5 mg/m³		60		1000		1		GC-TEA-EAP	ST	226-56	49			
o-Tolidine	OSHA 71			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
o-Tolidine dyes (dyes, benzidine)	NIOSH 5013	LFC		150 (@ 0.1 mg/m³)-500		1000-3000		varies		HPLC-UV	FLT C/HLD	225-17P 225-1	106 114	CST	225-3LF	113
m-Tolualdehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
o-Tolualdehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
p-Tolualdehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120 °	or	ST	226-119	50
Toluene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
Toluene	Internal					14.5 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
Toluene	Internal					0.63 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96
Toluene	Internal					14.5 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
Toluene	OSHA 111	200	300 (C)	12	0.5	50	50	4	10	GC-FID	ST	226-81A	49	ST	226-01	48
Toluene (Hydrocarbons, Aromatic)	NIOSH 1501	100	150	1-8	1-8	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
2,4-Toluene diisocyanate	ASTM D 5836			15		1000		15		HPLC-UV or HPLC-FD	CF/CST	225-9002	68	C/HLD	225-1	114
2,4-Toluene diisocyanate	ASTM D 5932			15		1000		15		HPLC-UV-FD	CF/CST	225-9022 ▼	68	C/HLD	225-1	114
2,4-Toluene diisocyanate	OSHA 5002	0.02 (C)		240	15	1000	1000	4	15	HPLC-UV or HPLC-FD	CF/CST CF/CST	225-9002 225-9022 ▼	or 68	CF/CST C/HLD	225-9013 225-1	or 114
2,6-Toluene diisocyanate	ASTM D 5836			15		1000		15		HPLC-UV or HPLC-FD	CF/CST	225-9002	68	C/HLD	225-1	114
2,6-Toluene diisocyanate	ASTM D 5932			15		1000		15		HPLC-UV-FD	CF/CST	225-9022 ▼	68	C/HLD	225-1	114
2,6-Toluene diisocyanate	OSHA 5002			240		1000		4		HPLC-UV or HPLC-FD	CF/CST CF/CST	225-9002 225-9022 ▼	or 68	CF/CST C/HLD	225-9013 225-1	or 114
2,4-Toluene diisocyanate (isocyanates)	NIOSH 5521	LFC		480	10	1000	1000	8	10	HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70
2,4-Toluene diisocyanate (isocyanates)	OR-OSHA 1010	0.02	0.005	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70
2,6-Toluene diisocyanate (isocyanates)	NIOSH 5521	LFC		480		1000		8		HPLC-ELCHM & HPLC-UV	IMP	225-36-1	70	IT	225-22	70
2,6-Toluene diisocyanate (isocyanates)	OR-OSHA 1010	0.02	0.005	45	5	1000	1000	45 min	5	HPLC	IMP CF/CST	225-36-1 225-9029	70 68	IT	225-22	70
2,4-Toluene diisocyanate (isocyanates, total)	NIOSH 5525	LFC		1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120
2,6-Toluene diisocyanate (isocyanates, total)	NIOSH 5525	LFC		1-500		1000-2000		varies		HPLC-UV	FLT SP FLT	225-7 ‡ 225-27 225-702 ‡	108 or 108	CST IOM	225-4 225-76A	113 120
p-Toluene sulfonic acid	NIOSH 5043			10-1000		1000-3000		varies 15		HPLC-UV	FLT	225-16	108	CST	225-32	114
Toluene-2,4-diamine	OSHA 65			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
2,4-Toluenediamine	NIOSH 5516	LFC		30 (@ 10 ug/m³)-500		1000		varies		HPLC-UV	IMP	225-36-1	70	IT	225-22	70
2,4-Toluenediamine	OSHA 65			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
2,6-Toluenediamine	NIOSH 5516	LFC		30 (@ 10 ug/m³)-500		1000		varies		HPLC-UV	IMP	225-36-1	70	IT	225-22	70
2,6-Toluenediamine	OSHA 65			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
m-Toluidine	OSHA 73			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
o-Toluidine	NIOSH 2017	LFC		5-50		200		25 min-4 hrs		GC-FID	CF/CST	225-9004	68	ST	226-15	48
o-Toluidine	OSHA 73	5		100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
p-Toluidine	OSHA 73			100		1000		100 min		GC-ECD	CF/CST	225-9004	68	C/HLD	225-1	114
o-Toluidine (Amines, Aromatic)	NIOSH 2002	LFC		10-150		20-1000		10 min-8 hrs		GC-FID or GC-NSD	ST	226-10	48			
Toxaphene (see chlorinated camphene)																

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Tremolite (<i>see asbestos fibers</i>)	NIOSH 7400																
Tremolite fibers (<i>see asbestos</i>)	OSHA ID 160																
Triazine pesticides	ASTM D 4861			960		2000		8		GC-ECD	PUF	226-92	54				
Tributyl phosphate	NIOSH 5034	0.2		2 (@ 0.5 ppm)-100		1000-3000		varies		GC-FPD	F/CST	225-3-01	100	C/HLD	225-1 114		
Tributyltin benzoate (tin, organic compounds [as Sn])	OSHA ID 222SG			200		2000		100 min		AA-GF	F/CST	225-803	105	C/HLD	225-1 114		
Tributyltin chloride (organotin compounds as Sn)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114	F/CST	225-709 108		
Tributyltin fluoride (tin, organic compounds [as Sn])	OSHA ID 223SG			200		2000		100 min		AA-GF	F/CST	225-803	105	C/HLD	225-1 114		
Tributyltin neodecanoate (<i>see tin, organic compounds</i>)																	
1,1,2-Trichloro-1,2,2-trifluoroethane	OSHA 113	1000		1		50		20 min		GC-FID	ST	NA SKC					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NIOSH 1020	1000	1250	0.1 (@ 1000 ppm)-3		10-50		varies	15	GC-FID	ST	226-01	48				
Trichloroacetic acid	OSHA PV2017			10		200		50		HPLC-UV	ST	226-10	48				
1,2,3-Trichlorobenzene	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-124	54				
1,2,3-Trichlorobenzene	OSHA in house file			12		200				GC-ECD	F/CST C/HLD	NA SKC 225-1	114	ST	226-30-04 48		
1,2,4-Trichlorobenzene (polychlorobenzenes)	NIOSH 5517	5		3-12		10-200		varies	15	GC-ECD	FLT ST C/HLD	Special order 226-30-04 225-1	48 114	CST	Special order		
1,1,2-Trichloroethane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37		
1,1,2-Trichloroethane	Internal					12.5 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
1,1,2-Trichloroethane	OSHA 11	10		10		200		50		GC-FID	ST	226-01	48				
1,1,2-Trichloroethane (hydrocarbons, halogenated)	NIOSH 1003	10 (skin)		10		10-200		varies		GC-FID	ST	226-01	48				
1,1,1-Trichloroethane (methyl chloroform)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37		
1,1,1-Trichloroethane (methyl chloroform)	Internal					14.1 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
1,1,1-Trichloroethane (methyl chloroform) (hydrocarbons, halogenated)	NIOSH 1003	350		3		10-200		varies		GC-FID	ST	226-01	48				
Trichloroethylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02 37		
Trichloroethylene	Internal					14.9 ml/min		8-24 hrs		TD, GC	PS	690-101	or	PS	690-103 96		
Trichloroethylene	Internal					14.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
Trichloroethylene	Internal					0.596 ml/min		24 hrs-7 days		SE, GC	PS	690-105	with	RR	690-300 96		
Trichloroethylene	NIOSH 1022	25	2 (1 hrs)	1 (@ 100 ppm)-30		10-200		varies		GC-FID	ST	226-01	48				
Trichloroethylene	OSHA 1001	100	200 (C)			14.24		8	5	GC-FID	PS	575-002	82				
Trichloroethylene	OSHA 1001	100	200 (C)	12	0.75	50	50	4	5	GC-FID	ST	226-01	48				
Trichloroethylene (hydrocarbons, halogenated)	NIOSH 1003			10		10-200		varies		GC-FID	ST	226-01	48				
Trichloroethylene by portable GC	NIOSH 3701	25	2 (1 hrs)	varies	varies	20-50	varies	varies	varies	P GC-PID	SB	232 Series	61				
Trichlorofluoromethane (fluorotrichloromethane)	NIOSH 1006	1000		0.3-7		10-50		varies		GC-FID	ST	226-09	48				
Trichloronitromethane	NON 51	0.1		144		100		24		GC-MSD	ST	226-175	51				
2,4,5-Trichlorophenol	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
2,4,5-Trichlorophenoxyacetic acid (<i>see 2,4,5-T</i>)																	
1,2,3-Trichloropropane	Internal					11.9 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103 or		
1,2,3-Trichloropropane	Internal					11.9 ml/min		8-24 hrs		SE, GC	PS	690-105	96				
1,2,3-Trichloropropane (hydrocarbons, halogenated)	NIOSH 1003	10 (skin)		0.6-60		10-200		varies		GC-FID	ST	226-01	48				
Tricyclohexyltin hydroxide (organotin compounds as Sn)	NIOSH 5504	0.1 mg/m³		480		1000		8		HPLC & AA-GF	ST C/HLD	226-30 225-1	48 114	F/CST	225-709 108		
Tridymite (<i>see silica, respirable crystalline</i>)	OSHA ID 142 (v4)																
Tridymite (Silica, Crystalline (respirable) by XRD)	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST C/HLD	225-803 225-1	105 114	CYC	225-01-02 125		

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Tridymite (Silica, Crystalline by IR)	NIOSH 7602	0.05 mg/m³		400-1000 (total dust < 4 mg)		2000-4000		varies		IR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-309	114 113
Triethanolamine (TEA)	OSHA PV2141			100		1000		100		GC-FID	F/CST	225-709	108	C/HLD	225-1	114
Triethanolamine (TEA) (Aminoethanol Compounds II)	NIOSH 3509			240		1000		4		IC	IMP	225-36-1	70	IT	225-22	70
Triethylamine	OSHA PV2060	25		10-20 ψ		100-200		100 min		GC-FID	ST	226-98	50			
Triethylene glycol	NIOSH 5523			5-60		500-2000		varies		GC-FID	ST	226-57	49			
Triethylenetetramine (TETA)	OSHA 60			10		100		100 min		HPLC-UV	ST	226-30-18	48			
Trifluorobromomethane	NIOSH 1017	1000		0.1 (1000 ppm)-1		10-50		2-100 min		GC-FID	ST	226-01	48	ST	226-09	48
Trifluoromonobromomethane (trifluorobromomethane)	NIOSH 1017	1000		0.1 (1000 ppm)-1		10-50		2-100 min		GC-FID	ST	226-01	48	ST	226-09	48
Trifluralin	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54			
1,3,5-triglycidyl isocyanurate (TGIC)	OSHA 1024			180		1000		3		GC-FID	FLT SP	225-7 225-27	108 115	CST C/HLD	225-2LF 225-1	113 114
1,3,5-triglycidyl-s-triazinetriene	OSHA 1024			180		1000		3		GC-FID	FLT SP	225-7 225-27	108 115	CST C/HLD	225-2LF 225-1	113 114
Trimellitic anhydride (TMA)	NIOSH 5036	0.005 (10 hrs)		400		1500-2000		3.3-4.4 hrs		GC-FID	F/CST	225-802	105	C/HLD	225-1	114
Trimellitic anhydride (TMA)	OSHA 98			480		2000		4		HPLC-UV	CF/CST	225-9010	68	C/HLD	225-1	114
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	OSHA PV2002			10		100		100 min		GC-FID	ST	226-110	50			
Trimethylamine	OSHA PV2060			10-20 ψ		100-200		100 min		GC-FID	ST	226-98	50			
1,2,3-Trimethylbenzene	OSHA 1020	25		2.78		11.6		4	15	GC-FID	PS	575-002	82			
1,2,3-Trimethylbenzene	OSHA 1020	25		12		50		4		GC-FID	ST	226-01	48			
1,2,4-Trimethylbenzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
1,2,4-Trimethylbenzene	Internal					13.0 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
1,2,4-Trimethylbenzene	Internal					13.0 ml/min		8-24 hrs		SE, GC	PS	690-105	96			
1,2,4-Trimethylbenzene	OSHA 1020	25		2.81		11.7		4	15	GC-FID	PS	575-002	82			
1,2,4-Trimethylbenzene	OSHA 1020	25		12		50		4		GC-FID	ST	226-01	48			
1,3,5-Trimethylbenzene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
1,3,5-Trimethylbenzene (mesitylene)	OSHA 1020	25		2.9		12.1		4	15	GC-FID	PS	575-002	82			
1,3,5-Trimethylbenzene (mesitylene)	OSHA 1020	25		12		50		4		GC-FID	ST	226-01	48			
Trimethylbenzene	OSHA 5000	25		12		50		4		GC-FID	ST	226-01	48			
3,5,5-Trimethylcyclohex-2-enone (isophorone)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
3,5,5-Trimethylcyclohex-2-enone (isophorone)	Internal					11.3 ml/min		0.25-5 hrs		TD, GC	PS	690-101	or	PS	690-104	96
Trimethyltin dichloride	NIOSH 5526	0.1 mg/m³		15-75		250-1000		4	60	GC-FPD	ST	226-30-16	48			
2,4,7-Trinitrofluorene-9-one	NIOSH 5018			100 (2 µg/m³)-500		1000-3000		varies		HPLC-UV	FLT C/HLD	225-17-04 225-1	106 114	CST	225-3LF	113
2,4,6-Trinitrotoluene (TNT)	OSHA 44	1.5 mg/m³		60		1000		1		GC-TEA-EAP	ST	226-56	49			
Triorthocresyl phosphate	NIOSH 5037	0.1 mg/m³		2 (0.1 mg/m³)-100		1000-3000		varies		GC-FPD	F/CST	225-3-01	100	C/HLD	225-1	114
Triphenyl phosphate	NIOSH 5038	3 mg/m³		10 (3 mg/m³)-400		1000-3000		varies		GC-FPD	F/CST	225-3-01	100	C/HLD	225-1	114
Triphenyl tin chloride (as Sn)	NIOSH 5527	0.1 mg/m³ (skin)		100-2000		1000-4000		varies		HPLC & ICP-AES	FLT	225-5-37-P	105	C/HLD	225-1	114
Triphenyltin hydroxide (tin, organic compounds (as Sn))	OSHA ID 225SG	0.1 mg/m³		200		2000		100 min		AA-GF	F/CST	225-709	108	C/HLD	225-1	114
Tripropylene glycol diacrylate (TPGDA)	NON 39			480		1000		8		GC-FID	ST	226-56	49			
Tuberculosis (mycobacterium tuberculosis), airborne	NIOSH 0900			1920		4000		8		PCR	FLT CST	225-17-32 225-3LF	106 113	SP C/HLD	225-27 225-1	115 114
Tungsten & compounds (insoluble) (as W)	OSHA ID 213			480	30	2000	2000	4	15	ICP	F/CST	225-3-01	100	C/HLD	225-1	114
Tungsten & compounds (soluble) (as W)	OSHA ID 213			480	30	2000	2000	4	15	ICP	F/CST	225-3-01	100	C/HLD	225-1	114
Tungsten (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	5 mg/m³	10 mg/m³	Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Tungsten (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	5 mg/m³	10 mg/m³	50-1000	50-1000	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105	
Tungsten (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300	5 mg/m³	10 mg/m³	5-1000	5-1000	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Tungsten insoluble	NIOSH 7074	5 mg/m³	10 mg/m³	200 (1 mg/m³)-1000		1000-4000		varies ♦		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114	
Tungsten soluble	NIOSH 7074	1 mg/m³	3 mg/m³	200 (1 mg/m³)-1000		1000-4000		varies ♦		AA-F	F/CST	225-3-01	100	C/HLD	225-1	114	
Turpentine	NIOSH 1551	100		1 (100 ppm)-10		10-200		varies		GC-FID	ST	226-01	48				
n-Undecane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
n-Undecane (hydrocarbons, BP 36 to 216 C)	NIOSH 1500	2		2		10-50		varies		GC-FID	ST	226-01	48				
Uranium (soluble compounds)	OSHA ID 170SG	0.05 mg/m³		240		2000		2		POL	F/CST	225-803	105	C/HLD	225-1	114	
Urea pesticides	ASTM D 4861			240-7200		1000-5000		4-24		GC-ECD	PUF	226-92	54				
n-Valeraldehyde	ASTM D 5197			varies		500-1200		5 min-24 hrs		HPLC-UV	ST	226-120	or	ST	226-119	50	
n-Valeraldehyde	NIOSH 2536	50		0.5 (50 ppm)-10		10-40		varies		GC-FID	ST	226-118	50				
n-Valeraldehyde	OSHA 85			3		50		1		HPLC-UV	CF/CST	225-9020	68	C/HLD	225-1	114	
n-Valeraldehyde (Aldehydes, Screening)	NIOSH 2539	50		5		20		4		GC-FID & GC-MS	ST	226-118	50				
Vanadium (Elements by ICP HNO₃ Digestion)	NIOSH 7303		0.05 mg/m³	2.5-500,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Vanadium (Elements by ICP HNO₃/HClO₄ Ashing)	NIOSH 7300		0.05 mg/m³	5-2000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Vanadium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306		0.05 mg/m³ C (as pentoxide)	Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Vanadium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301		0.05 mg/m³	5-2000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¥	105	
Vanadium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170	
Vanadium fume (as V₂O₅)	OSHA ID 125G	0.05 mg/m³ 0.1		480	20	2000	1000	4	20	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Vanadium oxides	NIOSH 7504		0.05 mg/m³ (15 min)	200-1000		2.2 (HD cyclone) 1.7 (nylon cyclone)		varies		XRD	F/CST CYC	225-803 225-01-02	105 125	C/HLD	225-1	114	
Vanadium pentoxide (V₂O₅) (see vanadium oxides)	NIOSH 7504																
Vanadium pentoxide (fume)	OSHA PV2121		0.1 mg/m³ (fume)	960		2000		8		GR	F/CST	225-803	105	C/HLD	225-1	114	
Vanadium pentoxide (respirable dust)	OSHA PV2121		0.5 mg/m³ (respirable dust)	960		2000		8		GR	F/CST CYC	225-803 225-105	105 124	C/HLD	225-1	114	
Vanadium respirable dust (as V₂O₅)	OSHA ID 125G		0.5 mg/m³	varies		varies		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	100 114	CYC	225-105	124	
Vanadium trioxide (see vanadium oxides)	NIOSH 7504																
Vermiculite (see Particulates Not Otherwise Regulated, total and respirable)																	
Vinyl acetate	NON 21			24		50		8		GC	ST	226-68	49				
Vinyl acetate	OSHA 51			24		3		100	200	4	15	GC-FID	ST	NA SKC			
Vinyl bromide	NIOSH 1009	LFC		2-10		10-200		varies		GC-FID	ST	226-09	48				
Vinyl bromide	OSHA 08	1	5	5		200		2.5		GC-FID	ST	226-01	48				
Vinyl chloride	ASTM D 4766			24		100 or 50		4 or 8		GC-FID	ST	226-16	48				
Vinyl chloride	NIOSH 1007	LFC		5		50		1.6		GC-FID	ST	226-01	48				
Vinyl cyclohexene dioxide	OSHA PV2083			10		200		50		GC-FID	ST	226-30	48				
Vinyl toluene	OSHA 89	100		12		0.75		50	4	GC-FID	ST	226-01	48				
Vinyl toluene (methyl styrene)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37	
N-Vinyl-2-pyrrolidinone	OSHA PV2106			10		200		50 min		GC-FID	ST	226-01	48				
Vinylidene chloride	NIOSH 1015	LFC		2.5-7		10-200		varies		GC-FID	ST	226-01	48				
Vinylidene chloride	OSHA 19			3		3		200	200	15 min	15	GC-FID	ST	226-01 48			
Viruses (in air)	NON 48			62.5-375		12,500 +		5-30		varies	BS	225-9595	136	VT	225-9598A	136	
VM&P naphtha	OSHA 48			3		3		20	200	2.5	15	GC-FID	ST	226-01 48			
VM&P naphtha (naphthas)	NIOSH 1550	350 mg/m³	1800 mg/m³	10	3	20(50)	200	8(3.3)	15	GC-FID	ST	226-01	48				

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

		SAMPLING ∞								skcinc.com for updates						
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time								
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number					
Volatile organic compounds (screening)	NIOSH 2549			1-6		10-50		varies		TD, GC-MS	ST	226-330	52			
Volatile organic compounds (VOCs) (sample bag)	EPA 0040					250-1000 ml/min		1-2 hrs		GC-MS	VAC SB	231-939 232-939	or or	VAC SB	231-940 232-01	with 61
Volatile organic compounds (VOCs) (thermal desorption tube)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
VOST (volatile organic sampling train)	EPA 0031			20		1 L/min		20 min		TD, GC-MS	ST	226-134 £	51	ST	Special Order	
Warfarin	NIOSH 5002	0.1 mg/m³		200 (at 0.1 mg/m³) -1000		1-4 L/min		1-8 hrs		HPLC-UV	FLT C/HLD	225-17-01 225-1	106 114	CST	225-2LF	113
Welding fumes (total particulate)	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105
Wood alcohol (methanol)	NIOSH 2000	200	250	1 (at 200 ppm) to 5	3	20	200	4	15	GC-FID	ST	226-51	49			
Wood dust	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	F/CST	225-802	105	C/HLD	225-1	114
Wood dust, hardwood	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	F/CST	225-802	105	C/HLD	225-1	114
Wood dust, softwood	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	F/CST	225-802	105	C/HLD	225-1	114
Wood spirit (methanol)	NIOSH 2000	200	250	1 (at 200 ppm) to 5	3	20	200	4	15	GC-FID	ST	226-51	49			
m-Xylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
m-Xylene	Internal					0.61 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96
m-Xylene	Internal					12.5 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
m-Xylene	Internal					12.5 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
m-Xylene	OSHA 1002	100				13.82		8		GC-FID	PS	575-002	82			
o-Xylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
o-Xylene	Internal					0.61 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96
o-Xylene	Internal					11.9 ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
o-Xylene	Internal					11.9 ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
o-Xylene	OSHA 1002	100				14.24		8		GC-FID	PS	575-002	82			
p-Xylene	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST CPC	226-300 Series 224-26-CPC	52 37	TH	224-26-02	37
p-Xylene	Internal					12.8 ml ml/min		8-24 hrs		TD, GC	PS PS	690-101 690-104	or 96	PS	690-103	or
p-Xylene	Internal					0.61 ml/min		24 hrs-7 days		TD, GC	PS PS	690-101 690-104	or with	PS RR	690-103 690-300	or 96
p-Xylene	Internal					12.8 ml ml/min		8 hrs-30 days		SE, GC	PS	690-105	96			
p-Xylene	OSHA 1002	100				13.94		8		GC-FID	PS	575-002	82			
m-Xylene (Hydrocarbons, Aromatic)	NIOSH 1501	100		2-23		10-200		varies		GC-FID	ST	226-01	48			
o-Xylene (Hydrocarbons, Aromatic)	NIOSH 1501	100	150	2-23	2-23	10-200	10-200	varies	varies	GC-FID	ST	226-01	48			
p-Xylene (Hydrocarbons, Aromatic)	NIOSH 1501	100		2-23		10-200		varies		GC-FID	ST	226-01	48			
Xylene (o-, m-, & p-isomers)	OSHA 1002	100		12		50		4		GC-FID	ST	226-01	48			
m-Xylenediamine (mXDA)	OSHA 105			100	15		1000	1.6 hrs	15	HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114
p-Xylenediamine (pXDA)	OSHA 105			100	15		1000	1.6 hrs	15	HPLC-UV	CF/CST	225-9004	68	C/HLD	225-1	114
2,4-Xyldine (Amines, Aromatic)	NIOSH 2002	2		3-20		20-200		15 min-8 hrs		GC-FID or GC-NSD	ST	226-10	48			
Yttrium	OSHA ID 121	1 mg/m³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114
Yttrium (Elements by ICP HNO₃ Digestion)	NIOSH 7303			0.1-50,000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114
Yttrium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	1 mg/m³		1-2000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114
Yttrium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			5-1000		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803	105

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

Sampling Guide

skcinc.com for updates

skcinc.com for updates		SAMPLING ∞															
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time									
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number						
Yttrium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300			5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Yttrium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170	
Zinc	OSHA ID 121			960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc	OSHA ID 125G			480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Zinc & compounds (as Zn)	NIOSH 7030	5 mg/m ³ (ZnO)	15 mg/m ³ (ZnO)	240	30	1000	2000	4	15	AA-F	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	5 mg/m ³	15 mg/m ³ C (dust) 10 mg/m ³ (fume)	Varies		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	
Zinc (Elements by ICP Aqua Regia Ashing)	NIOSH 7301			5-200		1000-4000		varies		ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-803 ¶	105	
Zinc (Elements by ICP HNO ₃ Digestion)	NIOSH 7303	5 mg/m ³ (ZnO)	15 mg/m ³ (ZnO)	0.5-10,000	0.5-10,000	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	5 mg/m ³ (ZnO)	10 mg/m ³ (ZnO)	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST	225-8408	100	
Zinc (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP	225-2415	170	
Zinc bromide (see <i>Particulates Not Otherwise Regulated, total and respirable</i>)																	
Zinc chloride fume	OSHA ID 121	1 mg/m ³		960	30	2000	2000	8	15	AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc chloride fume	OSHA ID 125G	1 mg/m ³		480	30	2000	2000	4	15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Zinc chromate (CR(VI))	OSHA ID 215 (V2)	0.005 mg/m ³		960		2000		8		IC-UV	F/CST	225-802 Ω	105	C/HLD	225-1	114	
Zinc chromates (as CrO ₃)	OSHA ID 215 (V2)	0.005 mg/m ³		960		2000		15		IC-UV	F/CST	225-802 Ω	105	C/HLD	225-1	114	
Zinc dibutyldithiocarbamate	OSHA PV2065			180		1000		3		HPLC-UV	ST	226-30-16	48				
Zinc oxide	NIOSH 7502	5 mg/m ³	15 mg/m ³ (15 min)	240	30	1000	2000	4	15	XRD	FLT	225-17-32	106	CST	225-3-23	113	
Zinc oxide (Elements by ICP HNO ₃ Digestion)	NIOSH 7303	5 mg/m ³	15 mg/m ³	0.5-10,000	0.5-10,000	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc oxide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113	
Zinc oxide (particulates, total)	NIOSH 0500			120		2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Zinc oxide dust (respirable dust)	OSHA PV2121	5 mg/m ³		varies		varies		varies		GR	F/CST CYC	225-803 225-105	105 124	C/HLD	225-1	114	
Zinc oxide dust (total dust)	OSHA PV2121	15 mg/m ³		960		2000		4-8		GR	F/CST	225-802	105	C/HLD	225-1	114	
Zinc oxide fume	OSHA ID 121	5 mg/m ³		960	30	2000	2000	8	15	AA or AES	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Zinc oxide fume	OSHA ID 125G	5 mg/m ³		480	30	2000	2000	4	15	ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Zinc oxide fume	OSHA ID 143	5 mg/m ³		960	30	2000	2000	8	15	XRD	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Zinc oxide fume (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	5 mg/m ³		480		2000		4		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc stearate (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT CYC	225-5-37-P 225-01-02	105 125	C/HLD CST	225-1 225-3LF	114 113	
Zinc stearate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114	
Zinc stearate (respirable dust)	OSHA PV2121	5 mg/m ³		varies		varies		varies		GR	F/CST CYC	225-803 225-105	105 124	C/HLD	225-1	114	
Zinc stearate (total dust)	OSHA ID 121	15 mg/m ³		960		2000		8		AA or AES	F/CST	225-3-01	100	C/HLD	225-1	114	
Zinc stearate (total dust)	OSHA ID 125G	15 mg/m ³		480		2000		4		ICP-AES	F/CST F/CST C/HLD	225-3-01 225-803 225-1	or or 114	F/CST F/CST	225-3100 225-8215	or 105	
Zineb	OSHA 107			500		2000		250 min		HPLC-UV	F/CST	225-3-01	100	C/HLD	225-1	114	
Zirconium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	5 mg/m ³	10 mg/m ³	1-1000		1000-4000		varies		ICP-AES	SC	225-8517	101	C/HLD	225-1	114	

Agency standards for OSHA listings represent the OSHA PELs reported in the 29 CFR 1910.1000 Part 1910, Section 1000.

Abbreviations and references are found on pages 244-245.

		SAMPLING ∞								skcinc.com for updates					
		Agency Standard		Vol. (liter)		Rate (ml/min)		Time							
Chemical Hazard	Agency Reference	TWA (ppm)	C/STEL (ppm)	TWA	C/STEL	TWA	C/STEL	TWA (hrs)	C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number				
Zirconium (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	5 mg/m³	10 mg/m³	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-803	105
Zirconium (Elements by ICP HNO ₃ /HClO ₄ Ashing)	NIOSH 7300	5 mg/m³	10 mg/m³	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST C/HLD	225-3-01 225-1	or 114	F/CST 225-803	105
Zirconium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W	225-2414	170	TMP 225-2415	170
Zirconium compounds (as Zr)	OSHA ID 121	5 mg/m³		960	30	2000	2000	8	15	AA or AES	F/CST	225-803	105	C/HLD 225-1	114

Symbols and Notes

- ∞ The sampling parameters shown are suggestions based on the ranges of volume, flow, and time specified in the methods. It is the responsibility of the analyst performing the sampling and analysis to adjust parameters so that the required detection limits can be obtained. It is the responsibility of the user to research published methods to determine validation level and suitability for unique applications.
- C Ceiling Value
- EL Excursion Limit
- LFC NIOSH standard: Lowest Feasible Concentration
- LOQ Limit of Quantitation
- NA SKC Not available from SKC
- NON Non-agency reference
- OEL U.S. Army Occupational Exposure Limit
- OR-OSHA Oregon OSHA method and target concentrations
- PV Provisional Method
- Special order... Because of limited shelf-life, certain sampling media are available only as special order items.
- ** Optional, use filter if particulates are present
- ‡ Filter or tube must be chemically treated before sampling.
- ♣ Modified procedure or sampler
- ◇ Other collection liquids may be more suited to target microorganisms.
- ¥ This method does not digest PVC filter Cat. No. 225-803 completely.
- Δ 1.0-micron PTFE filter is a NIOSH recommended substitute filter for the 0.8-micron PVC filter originally recommended in NIOSH Method 7904.
- Σ ACGIH Thoracic TWA. Use PPI for thoracic fraction TWA.
- + Sonic flow
- Use sorbent tube Cat. No. 226-120 when sampling in atmospheres containing ozone.
- †† Special order/limited shelf-life; contact SKC
- ▼ The MOPIP Derivatizing Solution, Cat. No. 225-9050, is needed to analyze for monomer/ oligomer aerosol.
- Ω For sampling in chromium plating operations, PVC filters Cat. No. 225-802 require special treatment after receipt at the laboratory. Alternatively quartz fiber filters Cat. No. 225-1827 treated with NaOH may be used. Refer to the method for details.
- π SKC recommends the AirChek TOUCH, Essential+, Connect, or XR5000 Sample Pump when using a silica gel sorbent tube with the coated filter at flows above 500 ml/min.
- £ Collect six samples at 20 minutes each. Use two Cat. No. 226-134 per sample.
- NIOSH Method 5524 analysis requires a Filter Funnel, which is not available from SKC.
- ♣ Refer to the analytical method for target concentrations.
- ♦ Do not exceed 2 mg total dust loading on the filter
- ψ 10 L at 0.1 L/min (maximum 20 liters at a flow rate of 0.2 L/min)



The Leader in Sampling Solutions and Expertise for OEHS Professionals

SCIENCE. SERVING PEOPLE.

Analytical Methods

AA	Atomic absorption
AAS	Atomic absorption spectroscopy
AED	Atomic emission detection
AES	Atomic emission spectroscopy
CA	Chromotropic acid assay
CD	Conductivity detection
CI	Colorimetric
CLR	Spectrophotometric method or colorimeter
DET TB	Detector tube, color-indicating
DID	Discharge ionization detector
DPCSP	Differential pulse cathodic stripping polarography
DPP	Differential pulse polarography
DR	Direct-reading
DRI	Direct-reading instrument
EAP	Explosives analysis package
ECD	Electron capture detector
ECN	Electrolytic conductivity detector
EGA-TOS	Evolved gas analysis with thermal-optical sensor
ELCHM	Electrochemical detector
F	Flame
FAME	Fatty acid methyl ester
FD	Fluorescence detector
FID	Flame ionization detector
FLAG	Flame arsine generation
FLUOR	Fluorescence
FPD	Flame photometric detector
FPDS	Flame photometric detector sulfur specific
GC	Gas chromatography
GF	Graphite furnace
GR	Gravimetric analysis
HGA	Heated graphite atomizer

Abbreviations

HPLC	High-performance liquid chromatography	P VAS	Portable visible absorption spectrophotometry
HRGC	High resolution gas chromatography	PASV	Portable anodic stripping voltammetry
HRMS	High resolution mass spectrometry	PCD	Post-column derivatization
IC	Ion chromatography	PCM	Phase contrast microscopy
IC-CD	Ion chromatography detector	PCR	Polymerase chain reaction
ICP	Inductively coupled plasma	PDA	Photo diode array detector
ICP-DCP	Inductively coupled plasma-directly coupled plasma spectroscopy	PES	Plasma emission spectrometry
ICP-MS	Inductively coupled plasma-mass spectrometry	PID	Photoionization detector
IR	Infrared spectrophotometry	PLM	Polarized light microscopy
IRA	Immunoradiometric assay	POL	Polarography
ISE	Ion-specific electrode	SCD	Sulfur chemiluminescence detector
LC	Liquid chromatography	SE	Soxhlet extraction
MAS	Molecular absorption spectrometry	SEM	Scanning electron microscopy
MD	Multi-detector	SIM	Selected Ion Monitoring
MS	Mass spectrometry	SPOT	Chemical spot test
MSD	Mass selective detector	TCD	Thermal conductivity detector
N ACT	Neutron activation	TD	Thermal desorption
NCD	Nitrogen chemiluminescence detector	TEA	Thermal energy analyzer
NPD	Nitrogen-phosphorus detector	TEM	Transmission electron microscopy
NSD	Nitrogen-specific detector	TITRA	Titration
NVM	No validated method	TOA	Thermal-optical analysis
P FLUOR	Portable fluorescence	UV	Ultraviolet detector
P GC	Portable gas chromatography	VAS	Visible absorption spectrophotometry
P IR	Portable infrared spectrophotometry	VIS	Visual
P IS	Portable infrared spectrophotometer	W	Wipe
		XRD	X-ray diffraction
		XRF	X-ray fluorescence
		XRFS	X-ray fluorescence spectroscopy

Collecting Equipment

AC	Accu-CAP Capsule	EPAM	Environmental Particulate Monitor	SB	Sample Bag
BI	Bioaerosol Impactor	F/CST	Filter in Preloaded Cassette	SBLK	Bulk Sorbent
BS	BioSampler	FLT	Filter	SC	Solu-CAP
C	Capsule	FLT/CL	Filter Cassette with Cowl	SCN	Screen
CAL	Calibration Adapter	FOAM	Foam	SCRN	Stainless Steel Screen
C/HLD	Filter Cassette and Cyclone Holder	H/SET	Headset (Face Level)	SH	Sampling Head
CF/CST	Coated Filter in Preloaded Cassette	IMP	Impinger	SM TB	Smear Tab
CH	Capsule Holder	IOM	IOM Particulate Sampler	SP	Support Pads
CI	Cascade Impactor	IS	Impaction Substrate	SPC	Spacer
CPC	Constant Pressure Controller	IT	Impinger Trap	SSC	Stainless Steel Cassette
CST	Filter Cassette	JAR	Jar	ST	Sorbent Tube
CYC	Cyclone	MINI	Mini-Sampler	STC	Spore Trap Cassette
DR	Direct-reading	MVC	Microvacuum Cassette	SV	Sorbent Vial
DRI	Direct-reading Instrument	PPI	Parallel Particle Impactor	T	Tape
DRT	Drying Tube	PS	Passive Sampler	TH	Tube Holder
DT	Detector Tube, Color	PT	Plastic Tubing	TK	Test Kit
		PUF	PUF Cartridge	TMP	Template
		RR	Rate Reducer	VAC	Vac-U-Chamber
				VT	ViaTrap for BioSampler
				W	Wipe

References

SKC Sampling Guides are abstracted from publications by the National Institute of Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), American Society for Testing and Materials (ASTM) International, the Environmental Protection Agency (EPA), Health and Safety Executive (HSE), and published non-agency methods. The printed version of the Sampling Guides in this catalog (and the references listed below) are current as of the print date of the catalog (typically April of the year of issue). For the most up-to-date information, visit www.skcinc.com/samplingguides.

NIOSH, OSHA, EPA, HSE, and ASTM International Agency References

NIOSH Manual of Analytical Methods, Fifth Edition

OSHA Analytical Methods Manual, published 1985 with updates through 2023; method number only for organics, method number with ID prefix for inorganics

EPA Compendium of Methods, Toxic Organic (TO) Jan. 1997, Inorganic (IO) Feb. 1997, Indoor Air (IP) Apr. 1990

Methods for the Determination of Hazardous Substances (MDHS) is a series published by Health and Safety Executive (HSE) Books in the UK that describes procedures for the measurement of personal exposure to contaminants in air. Go to www.hse.gov.uk/pubns/mdhs/.

ASTM International, Annual Book of Standards, Section 11 - Water and Environmental Technology, Volume 11.03. Occupational Health & Safety; Protective Clothing

Non-agency References

10. **Acrylic Acid**; proprietary method, contact SKC for procedure
14. **Ethylene Oxide**; Am. Ind. Hyg. Assoc. J., Vol. 38 (1977), pp. 635-647
16. **Iodine**; Am. Ind. Hyg. Assoc. J., Vol. 42 (1981), pp. 187-190
17. **Mercury**; Am. Ind. Hyg. Assoc. J., Vol. 37 (1976), pp. 311-314
19. **Nicotine**; Jnl. of the Assoc. of Analytical Chemists, Vol. 72 (1989), No. 6, pp. 1002-1006
21. **Vinyl Acetate**; Am. Ind. Hyg. Assoc. J., Vol. 43 (1982), pp. 137-142
22. **Hydrazine**; Am. Ind. Hyg. Assoc. J., Vol. 41 (1980), pp. 879-900
25. **Hydrazoic Acid**; Am. Ind. Hyg. Assoc. J., Vol. 52 (1991), pp. 14-19
26. **4,4'-Bipyridine Vapor**; Am. Ind. Hyg. Assoc. J., Vol. 54 (1993), pp. 440-445
28. **Methyltetrahydrophthalic Anhydride**; Ann. Occup. Hyg., Vol. 36 (1992), pp. 189-197
29. **Chloromethyl Methyl Ether**; Am. Ind. Hyg. Assoc. J., Vol. 42 (1981), pp. 47-55
38. **Nonpolar Organic Compounds**; Analytical Chem., Vol. 63 (July 1, 1991) No. 13, pp. 1228-1232
39. **Multifunctional Acrylates**; Appl. Occup. Environ. Hyg., Vol. 9 (Dec. 1994), pp. 977-983
40. **Chloroformates and Phosgene**; Am. Ind. Hyg. Assoc. J., Vol. 47 (Dec. 1986), pp. 742-746
41. **Ammonia**; Union Carbide Health, Safety, and Enviro. Tech., S. Charleston, WV, Method 38C-1P7-TSSc, pub. 1992
42. **Sulfur Gas**; NCASI Technical Bulletin 656, Dec. 1993
43. **Glutaraldehyde**; Union Carbide 38C-4Q5-TSGE, Dec. 1997
44. **2,3-Dimethyl-2,3-Dinitrobutane Vapor**; Am. Ind. Hyg. Assoc. J., Vol. 59 (1998), pp. 388-392
46. **Oil Mist Aerosol**; Am. Ind. Hyg. Assoc. J., Vol. 57 (Dec. 1996), pp. 1149-1152
48. **Bioaerosols**; Field Guide for the Determination of Biological Contaminants in Environmental Samples, AIHA Publications, Fairfax, VA, 1996
49. **Environmental Tobacco Smoke (Nicotine and 3-Ethenylpyridine)**; Ogden, M. W., et al., a compilation of published articles on detection of alkaloids in ETS, nicotine in ETS, and a comparative evaluation of diffusive and active sampling systems for airborne nicotine and 3-EP, 1992-1999
50. **2,2-Dichloro-1,1,1-Trifluoroethane**; Am. Ind. Hyg. Assoc. J., Vol. 63 (Nov./Dec. 2002), pp. 715-720
51. **Trichloronitromethane**; CA Air Resources Board, Oct. 2002
52. **Hexamethylenetetramine**; Ontario Ministry of Labour Method, AIHce 2005
54. **Acrylates, Acrylonitriles, and Styrene**; Saunders, H., Methyl Acrylate, Acrylonitrile, Ethyl Acrylate, n-Butyl Acrylate, Methyl Methacrylate, n-Butyl Methacrylate, and Styrene Using Anasorb 747 Sorbent Tubes, Rohm and Haas Corporate Industrial Hygiene Laboratory, Method IH9402
55. **Kathon 886 Biocide (2-Methyl-4-isothiazolin-3-one and 5-Chloro-2-methyl-4-isothiazolin-3-one)**; Sobczak, S.S., Rohm and Haas Corporate Industrial Hygiene Laboratory, Method IH9901, 2001
56. **Radon Progeny (on dust, in mines)**; US Dept. of Labor, Mine Safety and Health Administration, MSHA Handbook No. PH06-IV-1(1) Metal and Non-metal Mine Safety and Health MSHA Handbook Series, Oct. 2006
57. **Peracetic (peroxyacetic) Acid/Hydrogen Peroxide**; Ann. Occup. Hyg., Vol. 48, No. 8 (2004), pp. 715-721
58. **Manganese Fume**; Ann. Occup. Hyg., Vol. 53, No. 2 (2009), pp. 99-116
59. **Nitric Oxide**; A New Oxidizer Tube for Sampling Nitric Oxide and Nitrogen Dioxide in Air: A Modified OSHA ID-190 and NIOSH 6014 Method Using a New Sampling Train with Different Sampling Parameters and Calculations, SKC Inc., 2018, contact SKC.
60. **Acrylic Acid and Methacrylic Acid**; Partial Validation of the 226-30-08 Sorbent Tube for Acrylic and Methacrylic acid, SKC Inc., 2020, contact SKC.
61. **Acetic and Formic Acid**; Validation of passive samplers [UMEx 200] for monitoring of acetic and formic acid in museum environments, Heritage Science 9, 19 (2021), <https://doi.org/kx22>
62. **1,3-Butadiene and Benzene**; Evaluation of two types of diffusive samplers and adsorbents for measuring 1,3-butadiene and benzene in air, Atmospheric Env., 39 (2005), pp. 4101-4110

SKC Online Sampling Guides

Always available to serve you

- Searchable
- Continually updated
- Fast, easy access to methods, sampling information, equipment, and media

Visit skcinc.com/samplingguides or skcltd.com/hazard-search



SCAN ME