Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time (hrs) TWA	Time (min) C/STEL	Analytical Method	SKC Collecting Equipment & Page Number
Acenaphthene (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
Acenaphthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Acenaphthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Acenaphthene (1,2-dihydroacenaphthylene; 1,8-ethylenenapthylene) (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
Acenaphthylene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Acenaphthylene (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
Acenaphthylene (Acenaphthalene; cyclopenta[de] naphthalene) (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
Acenaphthylene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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/m^3 (Target Concentration)		100		1000		100 min		HPLC-UV	F/CST 225-706 108 C/HLD 225-1 114
Acridine	OSHA 58	0.2 mg/m^3		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-709 108 IMP 225-36-2 70 IT 225-22 70 C/HLD 225-1 114
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 225-01-02 125 C/HLD 225-1 114 F/CST 225-803 105
Alumina (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
alpha-Alumina (respirable fraction)	OSHA PV2121	5 mg/m³		varies		varies		varies		GR	CYC 225-105 124 F/CST 225-803 105 C/HLD 225-1 114
alpha-Alumina (total dust)	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	F\CST 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 225-3-01 or F/CST 225-508 100 C/HLD 225-1 114
Aluminum (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	10 mg/m³ (total dust)		5-100		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 225-8408 or F/CST 225-508 100
Aluminum (Elements by ICP Hot Block/HCl/HNO_3 Digestion)	NIOSH 7303	10 mg/m³ (total dust) 5 mg/m³ (respirable fume)		2-10,000		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 225-508 100 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 ∞															
		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/m³ (total dust) 5 mg/m³ (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/m³		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/m³		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/m³		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 *(see specific compounds)*	NIOSH 2007	varies		varies		varies		8		GC-FID	ST	226-10-04	48				
Aminoethanol compounds II *(see specific compounds)*	NIOSH 3509	varies		240		1000		4		IC	IMP	225-36-1	70	IT	225-22	70	
Aminoethylethanolamine	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 *(see ammonia)*																	
Ammonium metavanadate *(see vanadium oxides)*	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/m³		EPA		500-1000		24 min- 8 hrs		HPLC-UV	ST	226-30-05	48				
Anthophyllite fibers *(see asbestos fibers)*	NIOSH 7400																
Anthracene	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	
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	
Anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)																	
Anthracene (Polynuclear Aromatic Hydrocarbons by GC-MS-SIM)	NIOSH 5528	0.1 mg/m³ (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/m³		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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 or C/HLD 225-3100 or C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Antimony (Elements by ICP HNO_3 Digestion)	NIOSH 7303	0.5 mg/m³		3-100,000		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 508 100 C/HLD 225-1 114
Antimony (Elements by ICP HNO_3/$HClO_4$ Ashing)	NIOSH 7300	0.5 mg/m³		50-2000		1000-4000		varies		ICP-AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 C/HLD 225-1 114
Antimony (ICP Analysis of Metal/metalloid Particulates from Solder Operations)	OSHA ID 206	0.5 mg/m³		480		2000		4		ICP-AES	F/CST 225-3-01 or F/CST 225-508 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-508 100 C/HLD 225-1 114
Arsenic (Elements by ICP Aqua Regia Ashing)	NIOSH 7301	0.002 mg/m³		5-2000		1000-4000		varies		ICP-AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 C/HLD 225-1 114
Arsenic (Elements by ICP Hot Block/HCl/HNO_3 Digestion)	NIOSH 7303	0.002 mg/m³		8-5,000,000		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 225-508 100 C/HLD 225-1 114
Arsenic (Elements by ICP HNO_3/$HClO_4$ Ashing)	NIOSH 7300	0.002 mg/m³ (C)		5-2000		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 508 or F/CST 225-802 C/HLD 225-1 100 114
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 225-508 or F/CST 225-3-01 100 C/HLD 225-1 114
Arsenic trioxide as AS	NIOSH 7901	2 mg/m³ (15 min)		30		2000		15		AAS-GF	FLT 225-9001 68 CST 225-2LF 113 C/HLD 225-1 114
Arsenic, inorganic (volatile compounds as As)	OSHA 1006	0.01 mg/m³		480		2000		4		ICP-MS	F/CST 225-508 or F/CST 225-3-01 100 C/HLD 225-1 114
Arsenic, organo	NIOSH 5022			50-100		1000-3000		8		IC-AA	F/CST 225-1713 106 C/HLD 225-2LF 113 C/HLD 225-1 114
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 225-321 or FLT/CL 225-326 or FLT/CL 225-321A or FLT/CL 225-327 102
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 225-321 or FLT/CL 225-326 or FLT/CL 225-321A or FLT/CL 225-327 102
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 ∞																	
		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 HNO_3 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 Particulates Not Otherwise Regulated, 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-17-33 106 SP 225-27 115 CST 225-2LF 113
Benzene-soluble particulate matter	ASTM D 4600			960		2000		8		GR	FLT 225-7 108 SP 225-27 115 CST 225-2LF 113 C/HLD 225-1 114
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 225-17P 106 CST 225-3LF 113 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo(a)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 PEM 761-200B 130 FLT 225-1709 106
Benzo(a)pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo[b]fluoranthene (3,4-benzfluoranthene; 2,3-benzofluoranthene; benz[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 226-131 55 FLT 225-1808 107 PEM 761-203B 130 FLT 225-1709 106
Benzo(b)fluoranthene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo(b)fluoranthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo(e)pyrene (Polynuclear Aromatic Hydrocarbons by GC)	NIOSH 5515			480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo(g,h,i)perylene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo[k]fluoranthene (benzofluoranthene; 2,3,1',8'-binaphthylene; dibenzo[bjk]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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzo(k)fluoranthene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Benzoalphapyrene	OSHA 58	0.2 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
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 225-5 100 CST 225-2LF 113 SM TB 225-24 170
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 225-3-01 or F/CST 225-803 105 C/HLD 225-1 114
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 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-3100 100 C/HLD 225-1 114
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 226-30-05 48 F/CST 225-706 108 C/HLD 225-1 114
Bismuth	OSHA ID 121			480-960		2000		4-8		AAS/AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Bismuth telluride, undoped (respirable dust)	OSHA ID 121	5 mg/m³		varies		varies		varies		GR & AA or GR & AES	CYC 225-105 124 C/HLD 225-1 114 F/CST 225-803 105
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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
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 225-803 105 C/HLD 225-1 114 CYC 225-01-02 125
Boron oxide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Boron oxide (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 ∞																	
		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 ∞									
		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/m³		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 690-101 or PS 690-103 96 PS 690-104 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
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 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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/m³	0.5 mg/m³	960	30	2000	2000	8	15	AA	F/CST 225-508 or F/CST 225-802 or 100 F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Cadmium	OSHA 1006	0.2 mg/m³	0.5 mg/m³	480		2000		4		ICP-MS	F/CST 225-3-01 100 C/HLD 225-1 114
Cadmium	OSHA 5003	0.2 mg/m³	0.5 mg/m³	480		2000		4		ICP-MS	F/CST 225-3-01 100 C/HLD 225-1 114
Cadmium	OSHA ID125G	0.1 mg/m³ (fume) 0.2 mg/m³ (dust)	0.3 mg/m³ (fume) 0.6 mg/m³ (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/m³	0.5 mg/m³	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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/m³ (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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Calcium (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Calcium carbonate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Calcium carbonate *(see Particulates Not Otherwise Regulated, total and respirable)*											
Calcium cyanamide	OSHA ID 121			960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Calcium hydroxide	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 HNO_3 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Calcium silicate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 226-58 or ST 226-30-16 48 TH 224-29V 37
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 226-58 or ST 226-30-16 48 TH 224-29V 37
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 226-58 or ST 226-30-16 48 TH 224-29V 37
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 226-58 or ST 226-30-16 48 TH 224-29V 37

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 ∞									
		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 225-5-37-P 105 CST 225-3LF 113 SCN 225-26 115 C/HLD 225-1 114
Carbon black	OSHA ID 196	3.5 mg/m³		960		2000		8		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 252 Series or SB 253 Series or SB 262 Series or SB 263 Series 62
Carbon tetrachloride	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 37
Carbon tetrachloride	Internal					0.59 ml/min		8-24 hrs		TD, GC	PS 690-101 or PS 690-103 with RR 690-300 96
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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Cellulose (paper fiber) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Chlordane	NIOSH 5510	0.5 mg/m³		150		1000		2.5		GC-ECD	ST 226-107 50 FLT 225-5 100 CST 225-2LF 113 SCN 225-26 115 C/HLD 225-1 114
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 225-36-2 70 IT 225-22 70 CST 225-3-23 113 SP 225-2901 115 FLT 225-17-21 106
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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 52 TH 224-26-02 37 CPC 224-26-CPC 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/m³ (10 hrs)		48		100(200)		8(4)		GC-ECD	FLT 225-16 108 CST 225-32 114 ST 226-39 49
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 226-58 or ST 226-30-16 48 TH 224-29V 37
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/m³		240		1000		4		GC-FPD	ST 226-58 49
Chromic acid & chromates (as CrO_3)	OSHA ID 215 (V2)	0.005 mg/m³		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/m³ (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/m³ (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/m³		10 - 1000		1000-3000		varies		AA-F	F/CST 225-3-01 100 C/HLD 225-1 114
Chromium (Elements by Cellulosic Internal Capsule Sampler)	NIOSH 7306	0.5 mg/m³		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 ∞																	
		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 HNO_3 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 HNO_3/$HClO_4$ 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	225-802 225-8408	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	225-802 225-8408	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	225-802 225-8408	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	225-802 225-8408	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	225-802 225-8408	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% SiO_2) *(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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or 105 C/HLD 225-1 114 F/CST 225-803 ¥ 105
Cobalt (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 225-3-01 or 105 F/CST 225-3100 or 105 F/CST 225-803 or 105 F/CST 225-8215 105 C/HLD 225-1 114
Cobalt carbonyl	OSHA ID 121			960		2000		8		AA or AES	F/CST 225-508 or 100 F/CST 225-802 or 100 F/CST 225-3-01 or 105 F/CST 225-8408 100 C/HLD 225-1 114
Cobalt hydrocarbonyl	OSHA ID 121	0.1 mg/m³ (as Co)		960		2000		8		AA or AES	F/CST 225-508 or 100 F/CST 225-802 or 100 F/CST 225-3-01 or 105 F/CST 225-8408 100 C/HLD 225-1 114
Cobalt metal, dust & fume	OSHA ID 125G	0.1 mg/m³		480		2000		4		ICP-AES	F/CST 225-3-01 or 105 F/CST 225-3100 or 105 F/CST 225-803 or 105 F/CST 225-8215 105 C/HLD 225-1 114
Cobalt metal, dust & fume (as Co)	OSHA ID 121	0.1 mg/m³		960		2000		8		AA or AES	F/CST 225-508 or 100 F/CST 225-802 or 100 F/CST 225-3-01 or 105 F/CST 225-8408 100 C/HLD 225-1 114
Coke oven emissions	OSHA 58	0.15 mg/m³		960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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 225-3-01 or 105 F/CST 225-803 ¥ 105 C/HLD 225-1 114
Copper (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ Ashing)	NIOSH 7300	1 mg/m³ (dust) 0.1 mg/m³ (fume)		5-1000		1000-4000		varies		ICP-AES	F/CST 225-3-01 or 105 F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or 105 F/CST 225-3100 or 105 F/CST 225-803 or 105 F/CST 225-8215 105 C/HLD 225-1 114
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 225-3-01 or 105 F/CST 225-3100 or 105 F/CST 225-803 or 105 F/CST 225-8215 105 C/HLD 225-1 114
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 (Al_2O_3) *(see alpha-alumina [total dust])*											
Corundum (emery) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Corundum (emery) (particulates, total)	NIOSH 0500			120		2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 ∞																
		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					
Crufomate	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 HNO_3/$HClO_4$ 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 ∞																	
		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 ∞															
		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 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-317 107 CYC 225-105 124 C/HLD 225-1 114
Diesel particulate matter	MSHA 30CFR57	350 µg/m³ (total carbon)		varies		varies		varies		TOA-FID	F/CST 225-401 107 CYC 225-100 124 C/HLD 225-1 114
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 225-17-01 106 CST 225-2LF 113 C/HLD 225-1 114
Dimethyl disulfide	NON 42			12		1000		12 min		GC-FPD	SB 253-10 or SB 263-10 or SB 231-10 60
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

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Abbreviations and references are found on pages 244-245.

		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							
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	106 114	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	106 114	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	106 114	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	106 114	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	106 114	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	106 114	CST	225-3LF	113		
Di-sec-octyl phthalate *(see di-[2-ethylhexy] 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 37	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Dust (particulates, total)	NIOSH 0500			133		2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-803 105 C/HLD 225-1 114 CYC 225-105 124
Dust, respirable (particulates)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Dust, respirable (in workplace atmospheres)	ASTM D 4532			varies		2500		varies		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 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 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Dust, total, particulates not otherwise regulated	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Dyes, benzidine, o-tolidine, o-dianisidine	NIOSH 5013	LFC		150(@0.1mg/m³) -500		1000-3000		varies		HPLC-UV	FLT 225-17P 106 CST 225-3LF 113 C/HLD 225-1 114
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 225-401 107 CYC 225-100 124 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Elements by ICP HNO_3 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 $HNO_3/HClO_4$ 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Emery (corundum) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-2LF 113 FLT 225-5 100 SCN 225-26 115 ST NA SKC C/HLD 225-1 114
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 225-17-32 106 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Environmental tobacco smoke (solanesol, respirable particles)	ASTM D 6271			150-3600		2500		1-24		HPLC-UV	FLT 225-17-32 106 CST 225-3LF 113 CYC 225-01-02 125 C/HLD 225-1 114
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 225-7 108 CST 225-2LF 113 SP 225-27 115 C/HLD 225-1 114
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 ∞							
		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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 37
Ethyl benzene	Internal					0.41 ml/min		24 hrs-7 days		TD, GC	PS 690-101 or PS 690-103 or PS 690-104 with RR 690-300 96
Ethyl benzene	Internal					12.9 ml/min		8-24 hrs		TD, GC	PS 690-101 or PS 690-103 or PS 690-104 96
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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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
Ferrovanadium dust	OSHA ID 125G	1 mg/m³		480	30	2000	2000	4	15	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113

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Abbreviations and references are found on pages 244-245.

		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								
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[jk]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 (Dyfonate)	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 ∞									
		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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 *(see asbestos fibers)*	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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Glycidol (2,3-epoxy-1-propanol)	NIOSH 1608	25		10		20(50)		8(3.3)		GC-FID	ST 226-01 48
Glycol chlorohydrin *(see ethylene chlorohydrin)*											
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 225-508 or F/CST 225-802 or 100 F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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) *(see Respirable dust)*	OSHA ID 142 (v4)										
Graphite (synthetic) (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Graphite (synthetic) (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Grunerite fibers *(see asbestos)*	OSHA ID 160										
Gypsum (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Gypsum (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Hafnium	OSHA ID 121	0.5 mg/m³		960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or 100 F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 *(see hexamethylene diisocyanate)*											
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 ∞									
		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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-9002 or CF/CST 68 CF/CST 225-9013 or C/HLD 225-1 114 CF/CST 225-9022 ▼
1,6-Hexamethylene diisocyanate homopolymer	OSHA 5002			15		1000		15 min		HPLC-UV or HPLC-FD	CF/CST 225-9002 or CF/CST 68 CF/CST 225-9013 or C/HLD 225-1 114 CF/CST 225-9022 ▼
Hexamethylene diisocyanate (gaseous)	ASTM D 6562			15		1000		15 min		HPLC-UV or HPLC-FD	CF/CST 225-9023 or CF/CST 225-9022 ▼ 68 C/HLD 225-1 114
Hexamethylene diisocyanate (HDI) (isocyanates)	OR-OSHA 1010	0.02	0.02	45	5	1000	1000	45 min	5	HPLC	IMP 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
Hexamethylene diisocyanate (isocyanates)	NIOSH 5521	35 µg/m³	140 µg/m³ (10 min) (C)	480	10	1000	1000	8	10	HPLC-ELCHM & 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 225-7 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 108
Hexamethylene diisocyanate (monomeric aerosol)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST 225-9023 or CF/CST 225-9022 ▼ 68 C/HLD 225-1 114
Hexamethylene diisocyanate (monomeric gaseous)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST 225-9023 or CF/CST 225-9022 ▼ 68 C/HLD 225-1 114
Hexamethylene diisocyanate (oligomeric aerosol)	ASTM D 6561			15		1000		15 min		HPLC-UV	CF/CST 225-9023 or CF/CST 225-9022 ▼ 68 C/HLD 225-1 114
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 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
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 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-802 or F/CST 225-1713 or F/CST 225-709 or F/CST 225-401 107

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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 226-300 Series 52 CPC 224-26-CPC 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 226-55 49 CST 225-2LF 113 C/HLD 225-1 114 FLT 225-5-37-P 105 SPC 225-23 115
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 225-3LF 113 IT 225-22 70 SP 225-2902 115 IMP 225-36-2 70 FLT 225-5 100
Hydrogen cyanide (cyanides)	NIOSH 7904		5 mg/m³ (10 min)		15		1000		15	ISE	FLT 225-17-32 Δ 106 IMP 225-36-2 70 C/HLD 225-1 114 CST 225-2LF 113 IT 225-22 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 ∞																	
		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-phenylenepyrene) (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 HNO_3 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 HNO_3 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 HNO_3/$HClO_4$ 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 HNO_3 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 37
Isobutyl acetate	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
Isocyanates, total *(see specific isocyanate)*	NIOSH 5525	varies	varies	1-500	1-500	1000-2000	1000-2000	varies	varies	HPLC-UV	FLT 225-7 ‡ 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 ‡ 108
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-9002 or CF/CST 225-9022▼ 68 C/HLD 225-1 114
Isophorone diisocyanate (IPDI)	OR-OSHA 1010	0.02	0.02	45	5	1000	1000	45 min	5	HPLC	IMP 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
Isophorone diisocyanate (isocyanates, total)	NIOSH 5525	45 µg/m³	180 µg/m³ (10 min) C	1-500		1000-2000		varies		HPLC-UV	FLT 225-7 ‡ 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 ‡ 108
Isopropanol (isopropyl alcohol)	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 ∞																	
		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 $HNO_3/HClO_4$ Ashing)	NIOSH 7300			5-1000		1000-4000		varies		ICP-AES	F/CST	225-3-01	100	C/HLD	225-1	114			
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 HNO_3 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 $HNO_3/HClO_4$ 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
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 225-803 105 C/HLD 225-1 114 CYC 225-01-02 125
Lead, inorganic fumes & dusts (as Pb)	OSHA ID 121	0.05 mg/m³		960	30	2000	2000	8	15	AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Lead, inorganic fumes & dusts (as Pb)	OSHA ID 125G	0.05 mg/m³		480	30	2000	15	4		ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
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 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Lithium (Elements by ICP HNO_3/$HClO_4$ 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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Magnesite (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Magnesite (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Magnesium	OSHA ID 121			960	30	2000	2000	8	15	AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 105 C/HLD 225-1 114
Magnesium (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
Magnesium (Elements by ICP HNO_3/$HClO_4$ Ashing)	NIOSH 7300	10 mg/m³ (fume, as oxide)		5-67		1000-4000		varies		ICP-AES	F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 100 C/HLD 225-1 114 CYC 225-105 124

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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Manganese & compounds (as Mn)	OSHA ID 125G		5 mg/m³		10		2000		5	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Manganese (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ Ashing)	NIOSH 7300	1 mg/m³	3 mg/m³	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
Manganese fume (as Mn)	OSHA ID 121		5 mg/m³ (C)	960	10	2000	2000	8	5	AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Manganese in welding fume	NON 58		5 mg/m³	varies		750		varies		GR	FLT 225-8050 100 CST 225-6201 117 C/HLD 225-6200 117
Manganese tetroxide (as Mn)	OSHA ID 121			960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Manganese tetroxide (as Mn)	OSHA ID 125G			480		2000		4		ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
Marble (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Marble (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Marble *(see Particulates Not Otherwise Regulated, total and respirable)*											
MDI (4,4-methylene bisphenyl isocyanate)	OSHA 47	50 µg/m³	200 µg/m³		10		1000		10	HPLC-UV	CF/CST 225-9002 or CF/CST 225-9013 68 C/HLD 225-1 114
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 225-7 ‡ 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 ‡ 108
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 methyl ethyl ketone)*											
Mercaptans *(see specific compounds)*	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Mercury, Particulate (in Workplace Atmospheres, wipe samples)	OSHA ID 145		0.01 mg/m³							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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-508 or F/CST 225-802 or 100 F/CST 225-3-01 or F/CST 225-8408 C/HLD 225-1 114
Metal & metalloid particulates	OSHA ID 125G	varies	varies	480	30	2000	2000	4	15	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or 105 F/CST 225-803 or F/CST 225-8215 C/HLD 225-1 114
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 225-17-33 106 CST 225-2LF 113 C/HLD 225-1 114 SP 225-27 115
Metal working fluids (aerosols)	ASTM D 7049			960		2000		8		GR	FLT 225-17-33 106 CST 225-2LF 113 C/HLD 225-1 114 SP 225-27 115
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/m³ (thoracic particulates)		2000		varies		varies		GR	PPI 225-381 128 FLT 225-17-33 106 IS 225-388 126 SP 225-27 or SCN 225-26 115
Metalworking fluids (total particulates)	NIOSH 5524 ●	0.5 mg/m³ (total particulates)		1000 (min)		2000		varies		GR	FLT 225-17-33 106 CST 225-2LF 113 C/HLD 225-1 114 SP 225-27 115
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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/m³		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/m³		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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 ∞																	
		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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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/m^3		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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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 226-300 Series 52 CPC 224-26-CPC 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 ∞									
		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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-9002 or CF/CST 225-9022▼ 68 CF/CST 225-9013 or C/HLD 225-1 114
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 225-36-1 70 IT 225-22 70 CF/CST 225-9029 68
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-9013 or C/HLD 225-1 114 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 225-7 ‡ 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 ‡ 108
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 225-7 ‡ 108 CST 225-4 113 SP 225-27 or IOM 225-76A 120 FLT 225-702 ‡ 108
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Mineral wool fiber (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Mineral wool fiber (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-3-01 or 114 C/HLD 225-1 F/CST 225-803 105
Molybdenum (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
Molybdenum insolubles (as Mo) (respirable fraction)	OSHA ID 121	15 mg/m³ (total dust)		960		2000		8		GR & AA or GR & AES	F/CST 225-3-01 100 C/HLD 225-1 114 CYC 225-105 124
Molybdenum solubles (as Mo)	OSHA ID 121	5 mg/m³		960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 690-101 or PS 690-103 or PS 690-104 96
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 225-17-32 106 SP 225-27 115 CST 225-3LF 113 C/HLD 225-1 114
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			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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Naphthalene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506	10	15	480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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 ∞															
		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						
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/m³		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 HNO_3 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 HNO_3/$HClO_4$ 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 HNO_3 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 165SG	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 (NO_2)	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-7 108 SP 225-27 115 SPC 225-23 115
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 37
Octyl alcohol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-3-01 or F/CST 225-802 105 C/HLD 225-1 114
Oil mist (mineral)	OSHA ID 178SG	5 mg/m³		960		2000		8		GR & IR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 226-30 48 F/CST 225-709 108 C/HLD 225-1 114
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 225-701 108 CST 225-3LF 113 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 ∞																	
		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, *see specific compounds*)	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, *see specific compounds*)	ASTM D 6209			350 m^3 (max)		225 L/min		1-24		GC-MS	PUF	226-131	55	FLT	225-1808	107			
PAHs (Polynuclear Aromatic Hydrocarbons by HPLC, *see specific compounds*)	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 HNO_3 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/m^3		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/m^3		480		1000		8		GC-FPD	ST	226-30-16	48						
Parathion (Organophosphorus Pesticides)	NIOSH 5600	0.05 mg/m^3		240		1000		4		GC-FPD	ST	226-58	49						
Particulates not otherwise regulated (total dust)	OSHA PV2121	15 mg/m^3		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/m^3		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 *(see specific compounds)*	NIOSH 0500			133		1000-2000		1		GR	FLT CST	225-5-37-P 225-2LF	105 113	C/HLD	225-1	114			
Particulates, total *(see specific compounds)*	NIOSH 0501			120		2000		1		GR	AC CST	225-8516GLA 225-2LF	104 113	C/HLD	225-1	114			
PCBs (42% Cl) *(see polychlorobiphenyls)*	NIOSH 5503																		
PCBs (54% Cl) *(see polychlorobiphenyls)*	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/m^3		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/m^3		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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-9030 68 ST 226-193-UC or ST 226-199-UC 52
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 37
Perchloroethylene	Indoor					13.1 ml/min		8-24 hrs		TD, GC	PS 690-101 or PS 690-103 or PS 690-104 96
Perchloroethylene	Internal					0.55 ml/min		24 hrs-7 days		TD, GC	PS 690-101 or PS 690-103 or PS 690-104 with PS 690-300 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 232-01 or SB 249-01-PP with PT NA SKC with SBLK NA SKC
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 225-9030 68 ST 226-193-UC or ST 226-199-UC 52
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 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Phenanthrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Phenol	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 ∞															
		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 165SG	1 mg/m³		960	30	2000	2000	8	15	IC	ST	226-10-03	48				
Phosphorous (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Plaster of Paris (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Platinum (as Pt), soluble salts	OSHA ID 121	2 µg/m³		960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
PM2.5	EPA IP-10A					9 L/min		24 hrs		GR	CI 225-370 132 FLT 225-17-21 106 FLT 225-1709 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, *see specific compounds*)	NIOSH 5515			480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
PNAs by HPLC *(see specific compounds)*	NIOSH 5506			480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
PNAs selected	OSHA 58			960		2000		8		GR & HPLC-FD, or GR & HPLC-UV	FLT 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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 225-16 108 CST 225-32 114 ST 226-39 49
Polychlorobenzenes *(see specific compounds)*	NIOSH 5517	varies		varies		varies		8		GC-ECD	FLT Special order ST 226-30-04 48 CST Special order C/HLD 225-1 114
Polychlorobiphenyls (42% Cl)	NIOSH 5503	0.001 mg/m³ (10 hrs)		1L(@0.5mg/m³) -50		50-200		varies		GC-ECD	FLT 225-16 108 CST 225-32 114 ST 226-39 49
Polychlorobiphenyls (54% Cl)	NIOSH 5503	0.001 mg/m³ (10 hrs)		1L(@0.5mg/m³) -50		50-200		varies		GC-ECD	FLT 225-16 108 CST 225-32 114 ST 226-39 49
Polycyclic aromatic compounds (PACs), total	NIOSH 5800			960	30	2000	2000	8	15	FLUOR	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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, *see specific compounds*)	NIOSH 5515	varies		480		2000		4		GC-FID	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
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 *(see specific compounds)*	NIOSH 5506	varies		480		2000		4		HPLC-UV	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Portland cement (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Portland cement (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Portland cement (respirable dust) *(see respirable dust)*	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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 ¥ 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-17-32 Δ 106 CST 225-2LF 113 IMP 225-36-2 70 IT 225-22 70 C/HLD 225-1 114
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-7 108 CST 225-2LF 113 C/HLD 225-1 114
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 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Pyrene (Polynuclear Aromatic Hydrocarbons by HPLC)	NIOSH 5506			480		2000		4		HPLC-FD	F/CST 225-1713 106 ST 226-30-04 48 C/HLD 225-1 114
Pyrethrin pesticides *(see specific compounds)*	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Pyrethrum	NIOSH 5008	5 mg/m³		100		1000		2		HPLC-UV	F/CST 225-709 108 C/HLD 225-1 114 SP 225-27 115
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-309 113
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 225-803 105 CYC 225-01-02 125 C/HLD 225-1 114
Quartz (silica, crystalline by IR)	NIOSH 7602	0.05 mg/m³		1000		2000-4000		varies		IR	F/CST 225-803 105 C/HLD 225-1 114 CYC 225-01-02 125
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 225-5-37-P 105 CST 225-3050LF 113 C/HLD 225-1 114 CYC 225-01-02 125
Respirable Dust using GS-3 Cyclone	OSHA ID 142 (v4)	50 µg/m³		1320		2750		8		GR & XRD	FLT 225-5-37-P 105 CST 225-3050LF 113 C/HLD 225-1 114 CYC 225-100 124
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 225-17-01 106 CST 225-4 113 C/HLD 225-1 114
Rouge (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Rouge (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-709 or 114 F/CST 225-706 108 C/HLD 225-1
Selenium	OSHA ID 121	0.2 mg/m³		960		2000		8		AA or AES	F/CST 225-508 or F/CST 225-802 or 100 F/CST 225-3-01 or F/CST 225-8408 C/HLD 225-1 114
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 225-3-01 or 114 F/CST 225-803 ¥ 105 C/HLD 225-1
Selenium (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Silica, amorphous (respirable)	NIOSH 7501	6 mg/m³		50-400		2500		varies		XRD	F/CST 225-803 105 C/HLD 225-1 114 CYC 225-01-02 125
Silica, crystalline (respirable) by XRD	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST 225-803 105 CYC 225-01-02 125 C/HLD 225-1 114
Silica, crystalline by IR	NIOSH 7602	0.05 mg/m³		1000		2000-4000		varies		IR	F/CST 225-803 105 C/HLD 225-1 114 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Silica, fused *(see silica, respirable crystalline)*	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 225-5-37-P 105 CST 225-3050LF 113 C/HLD 225-1 114 CYC 225-01-02 125
Silica, respirable crystalline (as quartz, cristobalite, tridymite) using GS-3 Cyclone	OSHA ID 142 (v4)	50 µg/m³		1320		2750		8		XRD	FLT 225-5-37-P 105 CST 225-3050LF 113 C/HLD 225-1 114 CYC 225-100 124
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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Silicon (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Silicon carbide (particulates, respirable)	NIOSH 0600			375		2500		2.5		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Silicon carbide (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
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 225-3-01 or F/CST 225-803 105 C/HLD 225-1 114
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 225-508 or F/CST 225-802 or F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
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 226-55 49 FLT 225-5-37-P 105 CST 225-2LF 113 SPC 225-23 115 C/HLD 225-1 114
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 *(see super absorbent polymer)*											
Solanesol (environmental tobacco smoke, respirable particles)	ASTM D 6271			150-3600		2500		1-24		HPLC-UV	FLT 225-17-32 106 CST 225-3LF 113 CYC 225-01-02 125 C/HLD 225-1 114
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 *(see elemental carbon)*	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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Starch (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Starch *(see Particulates Not Otherwise Regulated, total and respirable)*											
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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or 114 C/HLD 225-1 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/m³		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/m³ (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 226-300 Series 52 CPC 224-26-CPC 37 TH 224-26-02 37
Styrene	Internal					13.7 ml/min		8-24 hrs		TD, GC	PS 690-101 or 96 PS 690-104 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 225-5-37-P 105 CYC 225-01-02 125 C/HLD 225-1 114 CST 225-3LF 113
Sucrose (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 CST 225-2LF 113 C/HLD 225-1 114
Sulfur *(see Particulates Not Otherwise Regulated, total and respirable)*											
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/m³		960		2000		8		IC-CD	CF/CST 225-9033 68 C/HLD 225-1 114
Sulfuric acid	NIOSH 7908	0.2 mg/m³ Σ		960		2000		8		IC	PPI 225-381 128 IS 225-388 126 FLT 225-1827 107 SP 225-27 115
Sulfuric acid	OSHA ID 113	1 mg/m³		480		2000		4		IC	F/CST 225-3-01 100 C/HLD 225-1 114
Sulfuric acid	OSHA ID 113	0.2 mg/m³ Σ		480		2000		4		IC	PPI 225-381 128 IS 225-388 126 FLT 225-5 100 SP 225-27 115
Sulfuric acid	OSHA ID 165SG	1 mg/m³		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/m³		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 *(see demeton)*											
Talc (containing asbestos) *(see asbestos)*	OSHA ID 160										
Talc (respirable, no asbestos)	OSHA PV2121	20 mppcf		varies		varies		varies		GR	CYC 225-105 124 C/HLD 225-1 114 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 225-36-1 70 CF/CST 225-9029 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 225-36-1 70 CF/CST 225-9029 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 ∞															
		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 HNO_3 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 HNO_3/$HClO_4$ 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				
Terbuthiuron	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 ∞																	
		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			
Thalium (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 114	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 HNO_3 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 HNO_3/$HClO_4$ 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 Tl)	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 114	F/CST	225-803 ¥	105			
Tin (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 114	F/CST	225-803 ¥	105			
Titanium (Elements by ICP HNO_3 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 HNO_3/$HClO_4$ 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 CST	225-1 225-3LF	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-17P 106 C/HLD 225-1 114 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 226-300 Series 52 CPC 224-26-CPC 37 TH 224-26-02 37
Toluene	Internal					14.5 ml/min		8-24 hrs		TD, GC	PS 690-101 or PS 690-104 96 PS 690-103 or
Toluene	Internal					0.63 ml/min		24 hrs-7 days		TD, GC	PS 690-101 or PS 690-104 with PS 690-103 or RR 690-300 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 225-9002 or CF/CST 225-9022 ▼ 68 CF/CST 225-9013 or C/HLD 225-1 114
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 225-9002 or CF/CST 225-9022 ▼ 68 CF/CST 225-9013 or C/HLD 225-1 114
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 225-36-1 70 CF/CST 225-9029 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 225-36-1 70 CF/CST 225-9029 68 IT 225-22 70
2,4-Toluene diisocyanate (isocyanates, total)	NIOSH 5525	LFC		1-500		1000-2000		varies		HPLC-UV	FLT 225-7 ‡ 108 SP 225-27 or FLT 225-702 ‡ 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 225-7 ‡ 108 SP 225-27 or FLT 225-702 ‡ 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time C/STEL (min)	Analytical Method	SKC Collecting Equipment & Page Number
Tremolite *(see asbestos fibers)*	NIOSH 7400										
Tremolite fibers *(see asbestos)*	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 226-30 48 C/HLD 225-1 114 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 *(see tin, organic compounds)*											
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 NA SKC ST 226-30-04 48 C/HLD 225-1 114
1,2,4-Trichlorobenzene (polychlorobenzenes)	NIOSH 5517		5	3-12		10-200		varies	15	GC-ECD	FLT Special order CST Special order ST 226-30-04 48 C/HLD 225-1 114
1,1,2-Trichloroethane	EPA TO-17			1 L & 4 L		16.7 ml/min & 66.7 ml/min		1		TD, GC	ST 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 *(see 2,4,5-T)*											
1,2,3-Trichloropropane	Internal					11.9 ml/min		8-24 hrs		TD, GC	PS 690-101 or PS 690-103 or PS 690-104 96
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 226-30 48 C/HLD 225-1 114 F/CST 225-709 108
Tridymite *(see silica, respirable crystalline)*	OSHA ID 142 (v4)										
Tridymite (Silica, Cystalline (respirable) by XRD)	NIOSH 7500	0.05 mg/m³		400-1000		2500		varies		XRD	F/CST 225-803 105 CYC 225-01-02 125 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 ∞																	
		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		10-20ψ		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-triazinetrione	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-Trinitrofluoren-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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Tungsten (Elements by ICP HNO_3/$HClO_4$ 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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 HNO_3 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 HNO_3/$HClO_4$ 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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Vanadium (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W 225-2414 170 TMP 225-2415 170
Vanadium fume (as V_2O_5)	OSHA ID 125G	0.05 mg/m³	0.1	480	20	2000	1000	4	20	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 105 C/HLD 225-1 114
Vanadium oxides	NIOSH 7504		0.05 mg/m³ (15 min)	200-1000		2.2 (HD cyclone) 1.7 (nylon cyclone)		varies		XRD	F/CST 225-803 105 C/HLD 225-1 114 CYC 225-01-02 125
Vanadium pentoxide (V_2O_5) *(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 225-803 105 C/HLD 225-1 114 CYC 225-105 124
Vanadium respirable dust (as V_2O_5)	OSHA ID 125G		0.5 mg/m³		varies		varies		varies	ICP-AES	F/CST 225-3-01 100 CYC 225-105 124 C/HLD 225-1 114
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 226-300 Series 52 TH 224-26-02 37 CPC 224-26-CPC 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 ∞																	
		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 or 232-939	or	VAC SB	231-940 or 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-Xylidine (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 HNO_3 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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	Agency Standard C/STEL (ppm)	Vol. (liter) TWA	Vol. (liter) C/STEL	Rate (ml/min) TWA	Rate (ml/min) C/STEL	Time TWA (hrs)	Time 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 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 C/HLD 225-1 114 105
Zinc & compounds (as Zn)	NIOSH 7030	5 mg/m³ (ZnO)	15 mg/m³ (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/m³	15 mg/m³ C (dust) 10 mg/m³ (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 225-3-01 or F/CST 225-803 ¥ 105 C/HLD 225-1 114
Zinc (Elements by ICP HNO_3 Digestion)	NIOSH 7303	5 mg/m³ (ZnO)	15 mg/m³ (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/m³ (ZnO)	10 mg/m³ (ZnO)	5-200	5-200	1000-4000	1000-4000	varies	varies	ICP-AES	F/CST 225-3-01 or F/CST 225-8408 100 C/HLD 225-1 114
Zinc (Elements on Wipes)	NIOSH 9102			wipe						ICP-AES	W 225-2414 170 TMP 225-2415 170
Zinc bromide *(see Particulates Not Otherwise Regulated, total and respirable)*											
Zinc chloride fume	OSHA ID 121	1 mg/m³		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/m³		480	30	2000	2000	4	15	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 C/HLD 225-1 114 105
Zinc 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
Zinc chromates (as CrO_3)	OSHA ID 215 (V2)	0.005 mg/m³		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/m³	15 mg/m³ (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/m³	15 mg/m³	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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Zinc oxide (particulates, total)	NIOSH 0500			120		2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Zinc oxide dust (respirable dust)	OSHA PV2121	5 mg/m³		varies		varies		varies		GR	F/CST 225-803 105 C/HLD 225-1 114 CYC 225-105 124
Zinc oxide dust (total dust)	OSHA PV2121	15 mg/m³		960		2000		4-8		GR	F/CST 225-802 105 C/HLD 225-1 114
Zinc oxide fume	OSHA ID 121	5 mg/m³		960	30	2000	2000	8	15	AA or AES	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Zinc oxide fume	OSHA ID 125G	5 mg/m³		480	30	2000	2000	4	15	ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 C/HLD 225-1 114 105
Zinc oxide fume	OSHA ID 143	5 mg/m³		960	30	2000	2000	8	15	XRD	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Zinc oxide fume (ICP analysis of metal/metalloid particulates from solder operations)	OSHA ID 206	5 mg/m³		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 225-5-37-P 105 C/HLD 225-1 114 CYC 225-01-02 125 CST 225-3LF 113
Zinc stearate (particulates, total)	NIOSH 0500			133		1000-2000		1		GR	FLT 225-5-37-P 105 C/HLD 225-1 114 CST 225-2LF 113
Zinc stearate (respirable dust)	OSHA PV2121	5 mg/m³		varies		varies		varies		GR	F/CST 225-803 105 C/HLD 225-1 114 CYC 225-105 124
Zinc stearate (total dust)	OSHA ID 121	15 mg/m³		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/m³		480		2000		4		ICP-AES	F/CST 225-3-01 or F/CST 225-3100 or F/CST 225-803 or F/CST 225-8215 C/HLD 225-1 114 105
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/m³	10 mg/m³	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.

Chemical Hazard	Agency Reference	SAMPLING ∞ Agency Standard TWA (ppm)	C/STEL (ppm)	Vol. (liter) TWA	C/STEL	Rate (ml/min) TWA	C/STEL	Time 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 225-3-01 or F/CST 225-803 105 C/HLD 225-1 114
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 225-3-01 or F/CST 225-803 105 C/HLD 225-1 114
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.*

∑ ..... *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)*