

Introduction

This guide includes most hazardous substances, including their current Workplace Exposure Limits at the time of printing (where applicable). For the most up-to-date version of this guide, please visit our website at www.skcltd.com. For a full list of Workplace Exposure Limits, please consult EH40, available from HSE books or www.hse.gov.uk. This guide should not be used as an alternative to obtaining a copy of EH40 and reading the full supplementary data it contains.

The following statements are taken directly from EH40 Workplace Exposure Limits.

Workplace Exposure Limits (WELs)

WELs are British occupational exposure limits and are set in order to help protect the health of workers. WELs are concentrations of hazardous substances in the air, averaged over a specified period of time, referred to as a time-weighted average (TWA). Two time periods are used: long-term (8 hours) and short-term (15 minutes).

Short-term exposure limits (STELs) are set to help prevent effects such as eye irritation, which may occur following exposure for a few minutes.

WELs and the Control of Substances Hazardous to Health Regulations 2002 (COSHH)

Substances that have been assigned a WEL are subject to the requirements of COSHH. These regulations require employers to prevent or control exposure to hazardous substances. For further information, go to www.hse.gov.uk/coshh. Under COSHH, control is defined as adequate only if a) the

principles of good control practice are applied, b) any WEL is not exceeded, and c) exposure to asthmagens, carcinogens, and mutagens are reduced as low as is reasonably practicable.

The absence of a substance from the list of WELs does not indicate that it is safe. For these substances, exposure should be controlled to a level to which nearly all the working population could be exposed, day after day at work, without any adverse effects on health.

As part of the assessment required under regulation 6 of COSHH, employers should determine their own working practices and in-house standards for control of exposure. In some cases, there may be sufficient information available for employers to set an 'in-house' working standard, e.g., from manufacturers and suppliers of the substances, publications of industry associations, occupational medicine and hygiene journals, and other agencies such as NIOSH and OSHA.

Chemical Hazard	Agency Reference	SAMPLING								Analytical Method	SKC Collecting Equipment and Page No.			
		WEL		Vol. (liter)		Rate (ml/min)		Time						
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA (hr)	STEL (min)					
Acetaldehyde	MDHS 102	20 ppm (37 mg/m ³)	50 ppm (92 mg/m ³)	varies	varies	varies	varies	varies	varies	HPLC-PDA	ST 226-119 or CF/CST 225-9003	or ST 226-120 or 70		
Acetaldehyde	MDHS 88	20 ppm (37 mg/m ³)	50 ppm (92 mg/m ³)	diffusive	diffusive	diffusive	diffusive			HPLC	PS 500-100	94		
Acetic acid	MDHS 104	10 ppm (25 mg/m ³)	20 ppm (50 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01	50		
Acetic acid	MDHS 96	10 ppm (25 mg/m ³)	20 ppm (50 mg/m ³)	24		50		8		GC-FID	ST 226-01	50		
Acetic anhydride	OSHA 102	0.5 ppm (2.5 mg/m ³)	2 ppm (10 mg/m ³)	7.5	7.5	50	500	2.5	15	GC-NPD	CF/CST 225-9010	70	C/HLD 225-1	118
Acetone	MDHS 104	500 ppm (1210 mg/m ³)	1500 ppm (3620 mg/m ³)	2	2	50	200	40 min	10	GC-FID	ST 226-01	50		
Acetone	MDHS 88	500 ppm (1210 mg/m ³)	1500 ppm (3620 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002	84		
Acetone	MDHS 96	500 ppm (1210 mg/m ³)	1500 ppm (3620 mg/m ³)	2	0.75	20	50	100 min	15	GC-FID	ST 226-01	50		
Acetonitrile	MDHS 104	40 ppm (68 mg/m ³)	60 ppm (102 mg/m ³)	10		50		3		GC-FID	ST 226-09	50		
Acetonitrile	MDHS 88	40 ppm (68 mg/m ³)	60 ppm (102 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002	84		
Acetonitrile	MDHS 96	40 ppm (68 mg/m ³)	60 ppm (102 mg/m ³)	10		20(50)		8(3.3)		GC-FID	ST 226-09	50		
o-Acetylsalicylic acid	MDHS 14/4	5 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112
Acrolein (acrylaldehyde)	NIOSH 2501	0.02 ppm (0.05 mg/m ³)	0.05 ppm (0.12 mg/m ³)	24	3	50	200	8	15	GC-NPD	ST 226-118	52		
Acrolein (acrylaldehyde)	OSHA 52	0.02 ppm (0.05 mg/m ³)		48	3	100	200	8	15	GC-NPD	ST 226-117	52		
Acrylamide	MDHS 57/2	0.1 mg/m ³		48 (50)	15 (30)	100 (1000)	1000	8	15	HPLC-UV	IMP 225-36-1	72	IT 225-22	72
Acrylic Acid	OSHA PV2005	10 ppm (29 mg/m ³)	20 ppm (59 mg/m ³) - 1 min	24		100		240 min		LC-UV	ST 226-30-08	50		
Acrylonitrile	MDHS 104	2 ppm (4.4 mg/m ³)		10	3	50	200	3	15	GC-FID	ST 226-01	50		
Acrylonitrile	MDHS 88	2 ppm (4.4 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002	84		
Allyl alcohol	MDHS 104	2 ppm (4.8 mg/m ³)	4 ppm (9.7 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01	50		
Allyl alcohol	MDHS 88	2 ppm (4.8 mg/m ³)	4 ppm (9.7 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002	84		
Aluminium alkyl compounds	OSHA ID-121	2 mg/m ³		960		2000		8		AAS	F/CST 225-3-01	104	C/HLD 225-1	118
Aluminium metal (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112
Aluminium metal (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69	129	FLT 225-58F	112
Aluminium metal (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112
										FOAM	225-772	124		
Aluminium oxides (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112
Aluminium oxides (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69	129	FLT 225-58F	112
Aluminium oxides (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112
										FOAM	225-772	124		
2-Aluminium salts, soluble	OSHA ID-121	2 mg/m ³		960		2000		8		AA or AES	F/CST 225-3-01	104	C/HLD 225-1	118
Aminoethanol	MDHS 96	1 ppm (2.5 mg/m ³)	3 ppm (7.6 mg/m ³)	10		20		8		GC-FID	ST 226-10-04	50		
Ammonia anhydrous	NIOSH 6015	25 ppm (18 mg/m ³)	35 ppm (25 mg/m ³)	72	3	150	200	8	15	VAS	ST 226-10-06	50	F/CST 225-3-01	104
Ammonia anhydrous	NIOSH 6016	25 ppm (18 mg/m ³)	35 ppm (25 mg/m ³)	48	3	100	200	8	15	IC	ST 226-10-06	50	F/CST 225-3-01	104

See page 244 for abbreviations.

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Chemical Hazard	Agency Reference	S A M P L I N G										Analytical Method	SKC Collecting Equipment and Page No.
		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Ammonium chloride (fume)	MDHS 14/4	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15	GR, IC-ECN	IOM 225-70A 124 FLT 225-1930 104		
Ammonium sulphamate	MDHS 14/4	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15	GR	IOM 225-70A 124 FLT 225-1930 104		
Aniline	MDHS 104	1 ppm (4 mg/m ³)		96		200		8		GC-FID	ST 226-10 50		
Aniline	MDHS 104	1 ppm (4 mg/m ³)		12		100		2		TD, GC	ST 226-357 54		
Aniline	MDHS 75/2	1 ppm (4 mg/m ³)		200		2000		100 min		HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Aniline	NIOSH 2017	1 ppm (4 mg/m ³)		50		200		4		GC-FID	CF/CST 225-9004 70 C/HLD 225-1 118		
p-Antimony & compounds (as Sb)	MDHS 91/2	0.5 mg/m ³		960		2000		8		XRF	IOM 225-70A 124 FLT 225-1930 104		
Aramid respirable fibres	MDHS 87	0.5 fibres/ml		Refer to method						PCM	FLT/CL 225-54A 125 FLT 225-1913 104		
Aromatic carboxylic acid anhydrides (see individual compounds)	MDHS 62/2			960	30	2000	2000	8	15	HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Arsenic & compounds (except arsine) as As	MDHS 91/2	0.1 mg/m ³		960		2000		8		XRF	IOM 225-70A 124 FLT 225-1930 104		
Arsine	NIOSH 6001	0.05 ppm (0.16 mg/m ³)		10	3	20	200	8	15	AA-GF	ST 226-01 50		
Asbestos (chrysotile alone)	MDHS See HSG 248		0.1 fbr/cm ³	240	40	1000	4000	4	10	PCM	FLT/CL 225-54(A) 125 FLT 225-60F or 225-1913 104		
Asbestos, with crocidolite/amosite/mixtures	MDHS See HSG 248		0.1 fbr/cm ³	240	40	1000	4000	4	10	PCM	FLT/CL 225-54(A) 125 FLT 225-60F or 225-1913 104		
Asphalt (petroleum fumes)	NIOSH 5042	5 mg/m ³	10 mg/m ³	360	60	1000	4000	6	15	GR	FLT Contact SKC 110 SP 225-27 119 F/CST 225-2LF 113		
Azodicarbonamide	MDHS 92/2	1 mg/m ³	3 mg/m ³	960	30	2000	2000	8	15	HPLC	IOM 225-79A 124 FLT 225-58F 112		
Barium compounds (soluble) (as Ba)	MDHS 91/2	0.5 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Barium sulphate (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Barium sulphate (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		CYC	225-69 129 FLT 225-58F 112		
Barium sulphate (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Benzene	MDHS 104	1 ppm (3.25 mg/m ³)		10		50		3		GC-FID	ST 226-01 50		
Benzene	MDHS 104	1 ppm (3.25 mg/m ³)		12		100		2		TD, GC	ST 226-357 or ST 226-358 54		
Benzene	MDHS 88	1 ppm (3.25 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Benzyl butyl phthalate	MDHS 96	5 mg/m ³		10		20		8		GC-FID	ST 226-35 50		
Benzyl chloride	MDHS 104	0.5 ppm (2.6 mg/m ³)	1.5 ppm (7.9 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01 50		
Benzyl chloride	MDHS 88	0.5 ppm (2.6 mg/m ³)	1.5 ppm (7.9 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Beryllium & compounds (as Be) - Further analytical method required	MDHS 14/4	0.002 mg/m ³		960	120	2000	2000	8	60	GR, ICP	IOM 225-70A 124 FLT 225-1930 104		
Bisphenol A	MDHS 14/4	2 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Bornan-2-one	MDHS 104	2 ppm (13 mg/m ³)	3 ppm (19 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01 50		
Bornan-2-one	MDHS 88	2 ppm (13 mg/m ³)	3 ppm (19 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Bromine	NIOSH 6011	0.1 ppm (0.66 mg/m ³)	0.2 ppm (1.3 mg/m ³)	240	15	1000	1000	4	15	IC	CF/CST 225-9006 70 C/HLD 225-1 118		
1,3-Bromomethane	OSHA PV2040	5 ppm (20 mg/m ³)	15 ppm (59 mg/m ³)	3	3	50	200	1	15	GC-FID	ST 226-83 52		
Butadiene	MDHS 96	1 ppm (2.2 mg/m ³)		10		20(50)		8(3.3)		GC-FID	ST 226-09 50		
1,3-Butadiene	MDHS 104	1 ppm (2.2 mg/m ³)		10		50		3		GC-FID	ST 226-09 50		
1,3-Butadiene	MDHS 63/2	1 ppm (2.2 mg/m ³)		diffusive	diffusive	diffusive	diffusive		15	GC	ST 226-520 99		
1,3-Butadiene	MDHS 88	1 ppm (2.2 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Butan-1-ol	MDHS 104		50 ppm (154 mg/m ³)	3		200		15		GC-FID	ST 226-01 50		
Butan-1-ol	MDHS 104		50 ppm (154 mg/m ³)	1.5		100		15		TD, GC	ST 226-357 or ST 226-358 54		
Butan-1-ol	MDHS 88		50 ppm (154 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Butan-1-ol	MDHS 96		50 ppm (154 mg/m ³)	10	3	20(50)	200	8(3.3)	15	GC-FID	ST 226-01 50		
Butan-2-ol	MDHS 88	100 ppm (308 mg/m ³)	150 ppm (462 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Butan-2-ol	MDHS 96	100 ppm (308 mg/m ³)	150 ppm (462 mg/m ³)	10	3	20	200	8	15	GC-FID	ST 226-01 50		
Butan-2-one (MEK)	MDHS 104	200 ppm (600 mg/m ³)	300 ppm (899 mg/m ³)	4	3	50	200	3	15	GC-FID	ST 226-10 50		
Butan-2-one (MEK)	MDHS 88	200 ppm (600 mg/m ³)	300 ppm (899 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
2-Butane	MDHS 104	600 ppm (1450 mg/m ³)	750 ppm (1810 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01 50		
2-Butoxyethanol	MDHS 104	25 ppm (123 mg/m ³)	50 ppm (246 mg/m ³)	10	3	50	200	3	15	GC-FID	ST 226-01 50		
2-Butoxyethanol	MDHS 104	25 ppm (123 mg/m ³)	50 ppm (246 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-357 or ST 226-358 54		
2-Butoxyethanol	MDHS 88	25 ppm (123 mg/m ³)	50 ppm (246 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
n-Butoxyethanol acetate	MDHS 88	20 ppm (133 mg/m ³)	50 ppm (332 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
n-Butyl acetate	MDHS 88	150 ppm (724 mg/m ³)	200 ppm (966 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
sec-Butyl acetate	MDHS 88	200 ppm (966 mg/m ³)	250 ppm (1210 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
sec-Butyl acetate	MDHS 96	150 ppm (724 mg/m ³)	200 ppm (966 mg/m ³)	10	3	20	200	8	15	GC-FID	ST 226-01 50		
t-Butyl acetate	MDHS 104	200 ppm (966 mg/m ³)	250 ppm (1210 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-358 54		
t-Butyl acetate	MDHS 88	200 ppm (966 mg/m ³)	250 ppm (1210 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
t-Butyl acetate	MDHS 96	200 ppm (966 mg/m ³)	250 ppm (1210 mg/m ³)	10	3	20	200	8	15	GC-FID	ST 226-01 50		
Butyl acrylate	MDHS 88	1 ppm (5 mg/m ³)	5 ppm (26 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
n-Butyl carbitol	OSHA PV2095	10 ppm (67.5 mg/m ³)	15 ppm (101.2 mg/m ³)	10		200		50 min		GC-FID	ST 226-01 50		
Butyl chloroformate	ASTM D6209	1 ppm (5.7 mg/m ³)		varies		225				GC-MS	ST 226-131 57		
2-sec-Butyl lactate	OSHA PV2080	5 ppm (30 mg/m ³)		10		200		50 min		GC-FID	ST 226-01 50		
Butylphenol	OSHA PV2128	5 ppm (31 mg/m ³)		20		200		100 min		HPLC-UV	ST 226-95 52		

See page 244 for abbreviations.

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Cadmium & compounds (except oxide fume & sulphide pigments)	MDHS 91/2	0.025 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Cadmium oxide fume (as Cd)	MDHS 91/2	0.025 mg/m ³	0.05 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Cadmium sulphide & pigments (as Cd)	MDHS 91/2	0.03 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Calcium carbonate (inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium carbonate (respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8		CYC	225-69 129 FLT 225-58F 112		
Calcium carbonate (respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium cyanamide	OSHA ID-121	0.05 mg/m ³	1 mg/m ³	960		2000		8		AA	F/CST 225-3-01 or 225-1 118 F/CST 225-3100 104		
Calcium hydroxide	MDHS 14/4	1 mg/m ³	4 mg/m ³	1440	45	3000	3000	8	15	GR	CYC 225-69 129 FLT 225-58F 112		
Calcium hydroxide	MDHS 14/4	5 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium hydroxide	MDHS 14/4	1 mg/m ³	4 mg/m ³	960	30	2000	2000	8	15	GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium hydroxide	MDHS 14/4	1 mg/m ³	4 mg/m ³	960		2000		8		FOAM	225-772 124		
Calcium oxide	MDHS 14/4	1 mg/m ³	4 mg/m ³	1440	45	3000	2000	8	15	GR	CYC 225-69 129 FLT 225-58F 112		
Calcium oxide	MDHS 14/4	2 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium oxide	MDHS 14/4	1 mg/m ³	4 mg/m ³	960	30	2000	2000	8	15	GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium silicate (inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Calcium silicate (respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8	15	GR	CYC 225-69 129 FLT 225-58F 112		
Calcium silicate (respirable)	MDHS 14/4	4 mg/m ³		960		2000		8	15	GR	IOM 225-70A 124 FLT 225-58F 112		
Captan (ISO)	MDHS 94/2	5 mg/m ³	15 mg/m ³	240	30	2000	2000	8	15	GC-MS	IOM 225-70A 124 FLT 225-58F 112		
Carbon black	MDHS 14/4	3.5 mg/m ³	7 mg/m ³	960	30	2000	2000	8	15	GR	IOM 225-70A 124 FLT 225-58F 112		
Carbon dioxide	OSHA ID-172	5000 ppm (9150 mg/m ³)	15000 ppm (27400 mg/m ³)	2-5	2-5	10-50	300	4-8	15	GC	SB 263-Series or SB 253-Series 64		
Carbon dioxide (by portable GC)	NIOSH 6603	5000 ppm (9150 mg/m ³)	15000 ppm (27400 mg/m ³)	varies	varies	20-100	20-100	varies	varies	GC	SB 232-Series 63		
Carbon disulphide	NIOSH 1600	5 ppm (15 mg/m ³)		10	3	20(50)	200	8(3.3)	15	GC	ST 226-01 50		
Carbon monoxide	OSHA ID-210	20 ppm (23 mg/m ³)	100 ppm (117 mg/m ³)	2-5	2-5	10-50	1000	varies	varies				

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA	STEL		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA (hr)	STEL (min)				
Copper dust & mists (as Cu)	MDHS 91/2	1 mg/m ³	2 mg/m ³	960	30	2000	2000	8	15			XRF/PS	IOM 225-70A 124 FLT 225-1930 104
Copper fume	MDHS 91/2	0.2 mg/m ³		960		2000		8				XRF/PS	IOM 225-70A 124 FLT 225-1930 104
Cotton dust	MDHS 14/4	2.5 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112
Cryofluorane (INN)	MDHS 88	1000 ppm (7110 mg/m ³)	1250 ppm (8890 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Cryofluorane (INN)	MDHS 96	1000 ppm (7110 mg/m ³)	1250 ppm (8890 mg/m ³)	3	1.5	20	100	2.5	15			GC-FID	ST 226-09 & ST 226-01 50
Cumene	MDHS 104	25 ppm (125 mg/m ³)	50 ppm (250 mg/m ³)	24	3	50	200	8	15			GC-FID	ST 226-01 50
Cumene	MDHS 104	25 ppm (125 mg/m ³)	50 ppm (250 mg/m ³)	12	1.5	100	100	2	15			TD, GC	ST 226-357 54
Cumene	MDHS 88	25 ppm (125 mg/m ³)	50 ppm (250 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
Cumene	MDHS 96	25 ppm (125 mg/m ³)	50 ppm (250 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
Cyanides (except HCN, cyanogen & cyanogen chloride)	NIOSH 7904	5 mg/m ³		120		500		4				ISE	FLT 225-3705 110 CST 225-2LF 113 IMP 225-36-2 72 IT 225-22 72 C/HLD 225-1 118
Cyclohexane	MDHS 88	100 ppm (350 mg/m ³)	300 ppm (1050 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
Cyclohexane	MDHS 96	100 ppm (350 mg/m ³)	300 ppm (1050 mg/m ³)	5	1.5	20	100	4	15			GC-FID	ST 226-01 50
Cyclohexanol	MDHS 88	50 ppm (208 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
Cyclohexanol	MDHS 96	50 ppm (208 mg/m ³)		10		20		8				GC-FID	ST 226-01 50
Cyclohexanone	MDHS 88	10 ppm (41 mg/m ³)	20 ppm (82 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Cyclohexanone	MDHS 96	10 ppm (41 mg/m ³)	20 ppm (82 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
2,4-Cyclohexylamine	OSHA PV2016	10 ppm (41 mg/m ³)		20		200		100 min				GC-FID	ST 226-98 52
D (ISO)	NIOSH 5602	10 mg/m ³	20 mg/m ³	480		1000		8				GC-ECD	ST 226-58 51
Dialkyl phthalate C7-C9	OSHA 104	5 mg/m ³		240		1000		4				GC-FID	ST 226-56 51
Diatomaceous earth (natural respirable dust)	MDHS 14/4	1.2 mg/m ³		1440		3000		8				GR	CYC 225-69 129 FLT 225-58F 112
Diatomaceous earth (natural respirable dust)	MDHS 14/4	1.2 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124
Dibenzoyl peroxide	NIOSH 5009	5 mg/m ³		90		1500		1				HPLC-UV	F/CST 225-3-01 104
Dibismuth tritelluride	MDHS 91/2	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15			XRF/PS	IOM 225-70A 124 FLT 225-1930 104
1,2-Diboron trioxide	MDHS 14/4	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15			GR	IOM 225-70A 124 FLT 225-58F 112
Dibromoethane	MDHS 96	0.5 ppm (3.9 mg/m ³)		24		50		8				GC-ECD	ST 226-01 50
1,2-Dibromoethane	MDHS 88	0.5 ppm (3.9 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-001 84
Dibutyl hydrogen phosphate	NIOSH 5017	1 ppm (8.7 mg/m ³)	2 ppm (17 mg/m ³)	240		2000		2				GC-FPD	FLT 225-17-01 110 CST 225-2LF 113 C/HLD 225-1 118
2,2'-Dibutyl phthalate	OSHA 104	5 mg/m ³	10 mg/m ³	240		1000		4				GC-FID	ST 226-56 51
1,3-Dichloro-4,4'-methylene dianiline (MbOCA)	MDHS 75/2	0.005 mg/m ³		200		2000		100 min				HPLC-UV	IOM 225-70A 124 FLT 225-58F 112
2,2-Dichloro-4,4'-methylene dianiline (MbOCA)	OSHA 71	0.005 mg/m ³		100		1000		100 min				GC-ECD	F/CST 225-9004 70 C/HLD 225-1 118
1,2-Dichlorobenzene (ortho-dichlorobenzene)	MDHS 88	25 ppm (153 mg/m ³)	50 ppm (306 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
1,4-Dichlorobenzene (ortho-dichlorobenzene)	MDHS 96	25 ppm (153 mg/m ³)	50 ppm (306 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
1,1-Dichlorobenzene (para-dichlorobenzene)	MDHS 96	2 ppm (12 mg/m ³)	10 ppm (60 mg/m ³)	24	3	50	200	8	15			GC-FID	ST 226-01 50
1,4-Dichlorobenzene (para-dichlorobenzene)	MDHS 88	2 ppm (12 mg/m ³)	10 ppm (60 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
1,2-Dichloroethane	MDHS 96	100 ppm		5	3	20	200	4	15			GC-FID	ST 226-01 50
1,2-Dichloroethane (ethylene dichloride)	MDHS 104	5 ppm (21 mg/m ³)		12		100		2				TD, GC	ST 226-358 54
1,2-Dichloroethane (ethylene dichloride)	MDHS 88	5 ppm (21 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
1,2-Dichloroethane (ethylene dichloride)	MDHS 96	5 ppm (21 mg/m ³)		24		50		8				GC-FID	ST 226-01 50
Dichloroethylene cis:trans isomers 60:40	MDHS 96	200 ppm (806 mg/m ³)	250 ppm (1010 mg/m ³)	5		50		100 min				GC-FID	ST 226-01 50
1,2-Dichloroethylene cis:trans isomers 60:40	MDHS 88	200 ppm (806 mg/m ³)	250 ppm (1010 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Dichlorofluoromethane	MDHS 96	10 ppm (43 mg/m ³)		3		20		2.5				GC-FID	ST (2) 226-09 √ 50
Dichloromethane	MDHS 104	100 ppm (353 mg/m ³)	200 ppm (706 mg/m ³)	3		50		1				TD, GC	ST 226-358 54
Dichloromethane	MDHS 88	100 ppm (353 mg/m ³)	200 ppm (706 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Dichloromethane	MDHS 96	100 ppm (353 mg/m ³)	200 ppm (706 mg/m ³)	2	1.5	20	100	1.6	15			GC-FID	ST (2) 226-01 √ 50
Dicyclopentadiene	MDHS 88	5 ppm (27 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Diethyl ether	MDHS	100 ppm (310 mg/m ³)	200 ppm (620 mg/m ³)	3		20		2.5				GC-FID	ST 226-01 50
Diethyl ether	MDHS 88	100 ppm (310 mg/m ³)	200 ppm (620 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Diethyl phthalate	OSHA 104	5 mg/m ³	10 mg/m ³	240		1000		4				GC-FID	ST 226-56 51
Diethyl sulphate	MDHS 104	0.05 ppm (0.32 mg/m ³)		12		100		2				TD, GC	ST 226-357 54
Diethyl sulphate	MDHS 89	0.05 ppm (0.32 mg/m ³)		96	3	200	200	8	15			GC-MS	ST 226-357 54
Diethylamine	MDHS 96	5 ppm (15 mg/m ³)	10 ppm (30 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-10 50
Diisopropyl ether	MDHS 88	250 ppm (1060 mg/m ³)	310 ppm (1310 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Diisopropyl ether	MDHS 96	251 ppm (1060 mg/m ³)	311 ppm (1310 mg/m ³)	1.5		20		75 min				GC-FID	ST 226-01 50
Dimethoxymethane	MDHS 88	1000 ppm (3160 mg/m ³)	1250 ppm (3950 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Dimethoxymethane	MDHS 96	1000 ppm (3160 mg/m ³)	1250 ppm (3950 mg/m ³)	1.5		20		75 min				GC-FID	ST 226-01 50
Dimethyl phthalate	OSHA 104	5 mg/m ³	10 mg/m ³	240		1000		4				GC-FID	ST 226-56 51
Dimethyl sulphate	MDHS 89	0.05 ppm (0.26 mg/m ³)		96	3	200	200	8	15			GC-MS	ST 226-357 54

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA	STEL		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA (hr)	STEL (min)				
N,N-Dimethyl sulphate	MDHS 96	0.05 ppm (0.26 mg/m ³)		12		50		4				GC-FID	ST 226-114 52
Dimethylacetamide	MDHS 96	10 ppm (36 mg/m ³)	20 ppm (72 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-10 50
2-Dimethylamine	MDHS 96	2 ppm (3.8 mg/m ³)	6 ppm (11 mg/m ³)	24	3	50	200	8	15			GC-FID	ST 226-10 50
N,N-Dimethylaminoethanol	NIOSH 2561	2 ppm (7.4 mg/m ³)	6 ppm (22 mg/m ³)	24		100		4				GC-FID	ST 226-94 52
N,N-Dimethylaniline	MDHS 88	5 ppm (25 mg/m ³)	10 ppm (50 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
N,N-Dimethylaniline	MDHS 96	5 ppm (25 mg/m ³)	10 ppm (50 mg/m ³)	24	3	50	200	8	15			GC-FID	ST 226-10 50
2,6-Dimethylformamide	MDHS 88	5 ppm (15 mg/m ³)	10 ppm (30 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Dimethylheptan-4-one	MDHS 96	25 ppm (148 mg/m ³)		10		20		8				GC-FID	ST 226-01 50
2,6-Dimethylheptan-4-one	MDHS 88	25 ppm (148 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Dioxane	MDHS 96	20 ppm (73 mg/m ³)		10		20		8				GC-FID	ST 226-01 50
1,4-Dioxane	MDHS 88	20 ppm (73 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Diphenyl ether (vapour)	MDHS 88	1 ppm (7 mg/m ³)	2 ppm (14 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Diphenyl ether (vapour)	MDHS 96	2 ppm (7 mg/m ³)	2 ppm (14 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
Diphenylamine	OSHA 78		20 mg/m ³	100		1000		100 min				HPLC-UV	F/CST 225-9004 70 C/HLD 225-1 118
Diphosphorus pentasulphide	OSHA ID-128SG	1 mg/m ³	2 mg/m ³	120		2000		8				IC	F/CST 225-802 109 C/HLD 225-1 118
Diphosphorus pentoxide	OSHA ID-111	1 mg/m ³	2 mg/m ³	960		2000		8				IC	F/CST 225-3-01 104 C/HLD 225-1 118
Dipropylene glycol methyl ether	MDHS 104	50 ppm (308 mg/m ³)		10		50		3				GC-FID	ST 226-01 50
Dipropylene glycol methyl ether	MDHS 88	50 ppm (308 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Di-tert-butyl-p-cresol	OSHA PV2108	10 mg/m ³		100		1000		100 min				GC-FID	ST 226-57 51
Diuron (ISO)	NIOSH 5601	10 mg/m ³		240		1000		4				HPLC-UV	ST 226-58 or ST 226-30-16 50
Dusts (Inhalable)													

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Ferrous foundry particulate (respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Flour dust	MDHS 14/4	10 mg/m ³	30 mg/m ³			2000	2000	8	15	GR	IOM 225-70A 124 FLT 225-58F 112		
Fluoride (inorganic as F)	OSHA ID-110	2.5 mg/m ³		90	22.5	1500	1500	1	15	ISE	CF/CST 225-9001 70 C/HLD 225-1 118		
Fluorine	OSHA ID-110	1 ppm (1.6 mg/m ³)	1 ppm (1.6 mg/m ³)	90	22.5	1500	1500	1	15	ISE	F/CST 225-3-01 or F/CST 225-508 104		
Formaldehyde	MDHS 102	2 ppm (2.5 mg/m ³)	2 ppm (2.5 mg/m ³)	varies	varies	varies	varies	varies	varies	HPLC-PDA	ST 226-119 or ST 226-120 or CF/CST 225-9003 70		
Formaldehyde	NIOSH 2541	2 ppm (2.5 mg/m ³)	2 ppm (2.5 mg/m ³)	24	1	100	100	4	10	GC-FID	ST 226-118 52		
Formic acid	NIOSH 2011	5 ppm (9.6 mg/m ³)		24		200		2		IC-CD	FLT 225-1728 110 CST 225-325LF 113 ST 226-10-03 50 C/HLD 225-1 118		
2-Furaldehyde (furfural)	MDHS 104	2 ppm (8 mg/m ³)	5 ppm (20 mg/m ³)	12		100		2		TD, GC	ST 226-357 54		
2-Furaldehyde (furfural)	NIOSH 2529	2 ppm (8 mg/m ³)	5 ppm (20 mg/m ³)	5		20		4		GC-FID	ST 226-118 52		
2-Furaldehyde (furfural)	OSHA 72	2 ppm (8 mg/m ³)	5 ppm (20 mg/m ³)	180		1000		3		GC-FID	ST 226-81A 51		
Glutaraldehyde	MDHS 102	0.05 ppm (0.2 mg/m ³)	0.05 ppm (0.2 mg/m ³)	varies	varies	varies	varies	varies	varies	HPLC-PDA	ST 2256-119 or ST 226-118 or CF/CST 225-9003 70		
Glycerol mist	NIOSH 600	10 mg/m ³		360		3000		2		GR	CYC 225-01-02 129 FLT 225-37-P 109 CST 225-3LF 113 C/HLD 225-1 118		
Grain dust	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Graphite (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Graphite (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Graphite (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Gypsum (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Gypsum (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Gypsum (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Halogeno platinum compounds as Pt	MDHS 91/2	0.002 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Haloethane	MDHS 88	10 ppm (82 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Hardwood dust	MDHS 14/4	3 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Heptan-2-one	MDHS 88	50 ppm (237 mg/m ³)	100 ppm (475 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Heptan-2-one	MDHS 96	50 ppm (237 mg/m ³)	100 ppm (475 mg/m ³)	5		20		4		GC-FID	ST 226-01 50		
Heptan-3-one	MDHS 88	35 ppm (166 mg/m ³)	100 ppm (475 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
Heptan-3-one	MDHS 96	35 ppm (166 mg/m ³)	100 ppm (475 mg/m ³)	5		20		4		GC-FID	ST 226-01 50		
n-Heptane	MDHS 104	500 ppm (2085 mg/m ³)		12		100		2		TD, GC	ST 226-357 or ST 226-358 54		
n-Heptane	MDHS 88	500 ppm (2085 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
n-Heptane	MDHS 96	500 ppm (2085 mg/m ³)		0.5		50		10 min		GC-FID	ST 226-01 50		
Hexan-2-one	MDHS 88	5 ppm (21 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Hexan-2-one	MDHS 96	5 ppm (21 mg/m ³)		10		20		8		GC-FID	ST 226-01 50		
n-Hexane	MDHS 104	20 ppm (72 mg/m ³)		6		50		2		TD, GC	ST 226-357 or ST 226-358 54		
n-Hexane	MDHS 88	20 ppm (72 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
n-Hexane	MDHS 96	20 ppm (72 mg/m ³)		10		20		8		GC-FID	ST 226-01 50		
Hydrazine	MDHS 86/2	0.01 ppm (0.013 mg/m ³)	0.1 ppm (0.13 mg/m ³)	480		1000		8		HPLC-UV	IMP 225-36-2 72 IT 225-22 72		
Hydrazine	MDHS 86/2	0.01 ppm (0.013 mg/m ³)	0.1 ppm (0.13 mg/m ³)	240		2000		2		HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Hydrazine	OSHA 108	0.01 ppm (0.013 mg/m ³)	0.1 ppm (0.13 mg/m ³)	240		1000		4		IC-UV	CF/CST 225-9012 70 C/HLD 225-1 118		
Hydrogen bromide	NIOSH 7907		3 ppm (10 mg/m ³)		30		2000		15	IC-CD	CF/CST 225-9032 70 C/HLD 225-1 118		
Hydrogen bromide	OSHA ID-165SG		3 ppm (10 mg/m ³)	97	3	200	200	8	15	IC	ST 226-10-03 50		
Hydrogen chloride (gas & aerosol mists)	NIOSH 7907	1 ppm (2 mg/m ³)	5 ppm (8 mg/m ³)	600	30	2000	2000	5	15	IC-CD	CF/CST 225-9032 70 C/HLD 225-1 118		
Hydrogen chloride (gas & aerosol mists)	OSHA ID-174SG	1 ppm (2 mg/m ³)	5 ppm (8 mg/m ³)		7.5		500		15	IC	ST 226-10-03 50		
Hydrogen cyanide	MDHS 56/3	0.9 ppm (1 mg/m ³)	4.5 ppm (5 mg/m ³)	40	15	200	1000	3	15	ISE	IMP 225-36-2 72 IT 225-22 72 IOM 225-70A 124 FLT 225-1930 104		
Hydrogen fluoride (as F)	OSHA ID-110	1.8 ppm (1.5 mg/m ³)	3 ppm (2.5 mg/m ³)	90	22	14500	1500	1	15	ISE	CF/CST 225-9001 70 C/HLD 225-1 118		
Hydrogen peroxide	OSHA 1019	1 ppm (1.4 mg/m ³)	2 ppm (2.8 mg/m ³)	240	30	1000	2000	4	15	VAS	CF/CST 225-9030 70 C/HLD 225-1 118		
Hydrogen sulphide	OSHA 1008	5 ppm (7 mg/m ³)	10 ppm (14 mg/m ³)	12	7.5	50	500	4	15	IC	ST 226-177 53		
Hydroquinone	MDHS 98/3	0.5 mg/m ³		30		2000		15		HPLC-UV	IOM 225-70A 124 FLT 225-58F 112 ST (2) 226-35-03 ✓ 50		
4-Hydroxy-4-methylpentan-2-one	MDHS 88	50 ppm (241 mg/m ³)	75 ppm (362 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
4-Hydroxy-4-methylpentan-2-one	MDHS 96	50 ppm (241 mg/m ³)	75 ppm (362 mg/m ³)	6		20		5		GC-FID	ST 226-01 50		
2-Hydroxypropyl acrylate	OSHA PV2078	0.5 ppm (2.7 mg/m ³)		10		100		100 min		GC-FID	ST 226-73 51		
Indium & compounds (as In)	MDHS 91/2	0.1 mg/m ³	0.3 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Iodine	NIOSH 6005		0.1 ppm (1.1 mg/m ³)		15		1000		15	IC	ST 226-67 51		
Iodomethane	MDHS 88	2 ppm (12 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Iodomethane	MDHS 96	2 ppm (12 mg/m ³)		10		20		8		GC-FID	ST 226-01 50		
Iron oxide (fume) (as Fe)	MDHS 91/2	5 mg/m ³	10 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Iron salts (as Fe)	MDHS 91/2	1 mg/m ³	2 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Isobutyl acetate	MDHS 104	150 ppm (724 mg/m ³)	187 ppm (903 mg/m ³)	6		50		2		TD, GC	ST 226-357 or ST 226-358 54		
Isobutyl acetate	MDHS 88	150 ppm (724 mg/m ³)	187 ppm (903 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Isobutyl acetate	MDHS 96	150 ppm (724 mg/m ³)	187 ppm (903 mg/m ³)	10		20		8		GC-FID	ST 226-01 50		

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Isocyanates (all) (as -NCO)	MDHS 25/4	0.02 mg/m ³	0.07 mg/m ³	960		2000		8		HPLC	IOM 225-79A 124 FLT 225-9011 70		
Isoflurane	MDHS 88	50 ppm (383 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Isooctyl alcohol (mixed isomers)	MDHS 88	50 ppm (271 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Isopentane	MDHS 88	600 ppm (1800 mg/m ³)		diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Isopentane	MDHS 96	600 ppm (1800 mg/m ³)		varies	varies	varies	varies	varies	varies	GC-FID	ST 226-01 50		
Isopropyl acetate	MDHS 104		200 ppm (849 mg/m ³)		1.5		100		15	TD, GC	ST 226-357 or ST 226-358 54		
Isopropyl acetate	MDHS 88		200 ppm (849 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Isopropyl acetate	MDHS 96		200 ppm (849 mg/m ³)		1.5		100		15	GC-FID	ST 226-01 50		
Kaolin (respirable dust)	MDHS 14/4	2 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Kaolin (respirable dust)	MDHS 14/4	2 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124		
Lead & inorganic compounds	MDHS 91/2	0.15 mg/m ³		960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Limestone (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Limestone (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Limestone (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124		
Lithium hydride - Further analytical method required	MDHS 14/4		0.02 mg/m ³	960	120	2000	2000	8	60	GR, ICP	IOM 225-70A 124 FLT 225-1930 104		
Lithium hydroxide	OSHA ID-121		1 mg/m ³	960		2000		8		AA or AES	F/CST 225-3-01 104 C/HLD 225-1 118		
Machine made mineral fibre (MMMF) (except for ceramic refractory)	MDHS 59/2	5 mg/m ³ & 2 fibres/ml		240		1000		8		GR + PCM	FLT/CL 225-54A 125 FLT 225-1913 104		
Magnesite (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Magnesite (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Magnesite (respirable dust)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124		
Magnesium oxide (as Mg) (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124		
Magnesium oxide (as Mg) (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Magnesium oxide (as Mg) (respirable dust)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Malathion	OSHA 62	10 mg/m ³		60		1000		1		TD, GC	ST 226-30-16 50		
Maleic anhydride	MDHS 104	1 mg/m ³	3 mg/m ³	12		100		2		GC-FID	ST 226-357 54		
Maleic anhydride	OSHA 86	1 mg/m ³	3 mg/m ³	60		500		2		HPLC-UV	CF/CST 225-9021 70 C/HLD 225-1 118		
Manganese & inorganic compounds (as Mn) (inhalable)	MDHS 91/2	0.2 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Manganese & inorganic compounds (as Mn) (respirable)	MDHS 91/2	0.05 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Manganese in welding fume	ISO 10882-1	0.5 mg/m ³		varies		750		varies		GR	H/SET 225-6200 121 MINI 225-6201 121 CAL 225-6202 121 FLT 225-8050 104		
Marble (total inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Marble (total respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Marble (total respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112 FOAM 225-772 124		
Mercury & compounds (except alkyl compounds)	NIOSH 6009	0.02 mg/m ³											

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Methyl isocyanate	OSHA 54		0.02 ppm	15		50		300				HPLC-FD	ST 226-94 52
Methyl methacrylate	MDHS 104	50 ppm (208 mg/m ³)	100 ppm (416 mg/m ³)	12	1.5	100	100	2	15			TD, GC	ST 226-357 54
Methyl methacrylate	MDHS 88	50 ppm (208 mg/m ³)	100 ppm (416 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Methyl methacrylate	MDHS 96	50 ppm (208 mg/m ³)	100 ppm (416 mg/m ³)	5	1.5	20	100	4	15			GC-FID	ST 226-30-06 50
N-Methyl-2-pyrrolidone	MDHS 96	10 ppm (40 mg/m ³)	20 ppm (80 mg/m ³)	24	3	50	200	8	15			GC-FID	ST 226-01 50
N-Methylacrylonitrile	OSHA 37	1 ppm (2.8 mg/m ³)		20		200		100 min				GC-NPD	ST 226-01 50
3-Methylaniline	NIOSH 3511	0.5 ppm (2.2 mg/m ³)		100		1000		100 min				GC-FID	IMP 225-36-2 or IMP 225-22 72
Methylbutan-1-ol	MDHS 96	100 ppm (366 mg/m ³)	125 ppm (458 mg/m ³)	5	3	20	200	4	15			GC-FID	ST 226-01 50
3-Methylbutan-1-ol	MDHS 88	100 ppm (366 mg/m ³)	125 ppm (458 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Methylcyclohexanol	MDHS 88	50 ppm (237 mg/m ³)	75 ppm (356 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
2-Methylcyclohexanol	MDHS 96	50 ppm (237 mg/m ³)	75 ppm (356 mg/m ³)	5	3	20	200	4	15			GC-FID	ST 226-01 50
2-Methylcyclohexanone	MDHS 104	50 ppm (233 mg/m ³)	75 ppm (350 mg/m ³)	24		200	100	2	15			TD, GC	ST 226-357 54
4,4-Methylcyclohexanone	MDHS 96	50 ppm (233 mg/m ³)	75 ppm (350 mg/m ³)	5		20		4				GC-FID	ST 226-115 52
4,4'-Methylenebis(orthochloroaniline) (MbOCA)	MDHS 75/2	0.005 mg/m ³		200		2000		100 min				HPLC-UV	IOM 225-70A 124 FLT 225-58F 112
5-Methylenedianiline (MDA)	MDHS 75/2	0.01 ppm (0.08 mg/m ³)		200		2000		100 min				HPLC-UV	IOM 225-70A 124 FLT 225-58F 112
5-Methylheptane-3-one	MDHS 88	10 ppm (53 mg/m ³)	20 ppm (107 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
5-Methylheptane-3-one	MDHS 96	10 ppm (53 mg/m ³)	20 ppm (107 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
4-Methylhexan-2-one	MDHS 88	20 ppm (95 mg/m ³)	40 ppm (170 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
4-Methylpentan-2-ol	MDHS 88	25 ppm (106 mg/m ³)	40 ppm (170 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
4-Methylpentan-2-ol	MDHS 96	25 ppm (106 mg/m ³)	40 ppm (170 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
2-Methylpentan-2-one	MDHS 96	50 ppm (208 mg/m ³)	100 ppm (416 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
4-Methylpentan-2-one	MDHS 88	50 ppm (208 mg/m ³)	100 ppm (416 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
2-Methylpentane-2,4-diol	OSHA PV2101	25 ppm (123 mg/m ³)	25 ppm (123 mg/m ³)	3		200		15				GC-FID	ST 226-01 50
Methylpropan-1-ol	MDHS 96	50 ppm (154 mg/m ³)	75 ppm (231 mg/m ³)	10		20(50)		8(3.3)				GC-FID	ST 226-01 50
2-Methylpropan-1-ol	MDHS 88	50 ppm (154 mg/m ³)	75 ppm (231 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Methyl-tert-butyl-ether	MDHS 88	50 ppm (183.5 mg/m ³)	100 ppm (367 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Methyl-tert-butyl-ether	NIOSH 1615	50 ppm (183.5 mg/m ³)	100 ppm (367 mg/m ³)	96		200		8				GC-FID	ST 226-37 51
Mica (total inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112
Mica (total respirable)	MDHS 14/4	0.8 mg/m ³		1440		3000		8				GR	CYC 225-69 129 FLT 225-58F 112
Mica (total respirable)	MDHS 14/4	0.8 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112
Molybdenum compounds (insoluble) (as Mo)	MDHS 91/2	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15			XRFS	IOM 225-70A 124 FLT 225-1930 104
Molybdenum compounds (soluble) (as Mo)	MDHS 91/2	5 mg/m ³	10 mg/m ³	960	30	2000	2000	8	15			XRFS	IOM 225-70A 124 FLT 225-1930 104
Monochloroacetic acid	NIOSH 2008	0.3 ppm (1.2 mg/m ³)		48		100		8				IC-CD	ST 226-47-01 51
Nickel (insoluble compounds except nickel tetracarbonyl) (as Ni)	MDHS 91/2	0.5 mg/m ³		960		2000		8				XRFS	IOM 225-70A 124 FLT 225-1930 104
Nickel (soluble compounds except nickel tetracarbonyl) (as Ni)	MDHS 91/2	0.1 mg/m ³		960		2000		8				XRFS	IOM 225-70A 124 FLT 225-1930 104
Nicotine	MDHS 104	0.5 mg/m ³	1.5 mg/m ³	360		1000		6				GC-NPD	ST 226-95 52
Nicotine	MDHS 96	0.5 mg/m ³	1.5 mg/m ³	360		1000		6				GC-NPD	ST 226-30-04 50
Nitric acid	NIOSH 7907		1 ppm (2.6 mg/m ³)	600	30	2000	2000	5	15			IC-CD	CF/CST 225-9032 70 C/HLD 225-1 118
Nitrobenzene	MDHS 104	0.2 ppm (1 mg/m ³)		12		100		2				TD, GC	ST 226-357 54
Nitrobenzene	MDHS 104	0.2 ppm (1 mg/m ³)		12		100		2				TD, GC	ST 226-357 54
Nitrobenzene	MDHS 96	0.2 ppm (1 mg/m ³)		48		100		8				GC-FID	ST 226-10 50
Nitrobenzene	NIOSH 2017	0.2 ppm (1 mg/m ³)		24		200		2				GC-FID	CF/CST 225-9004 70 C/HLD 225-1 118
Nitrogen dioxide	NIOSH 6014	0.1 mg/m ³		1.5-6		25-200		1-4				VAS	ST 226-40-02 51
Nitrogen monoxide	NIOSH 6014	0.5 mg/m ³		1.5-6		25-200		1-4				VAS	ST 226-40-02 51
2-Nitromethane	NIOSH 2527	100 ppm (254 mg/m ³)	150 ppm (381 mg/m ³)	2.4		20		2				GC-NSD	ST 226-111A 52
di-n-Nitropropane	MDHS 96	5 ppm (18 mg/m ³)		1.8		20		1.5				GC-FID	ST 226-110 52
Octyl phthalate	OSHA 104	5 mg/m ³	10 mg/m ³	240		1000		4				GC-FID	ST 226-56 51
Oil mist	MDHS 84/2			960	240	2000	2000	8	120			GR	IOM 225-70A 124 FLT 225-58F 112
Orthotoluidine	MDHS 75/2	0.1 ppm (0.5 mg/m ³)		200		2000		100 min				HPLC-UV	IOM 225-70A 124 FLT 225-58F 112
Osmium tetroxide (as Os)	MDHS 91/2	0.0002 ppm (0.002 mg/m ³)	0.0006 ppm (0.006 mg/m ³)	960	30	2000	2000	8	15			XRFS	IOM 225-70A 124 FLT 225-1930 104
2,2-Oxalic acid	OSHA PV2115	1 mg/m ³	2 mg/m ³	100		1000		100 min				IC	FLT 225-701 112 CST 225-3LF 113
Oxydiethanol	NIOSH 5523	23 ppm (101 mg/m ³)		60		1000		1				GC-FID	ST 226-57 51
Ozone	OSHA ID-214		0.2 ppm (0.4 mg/m ³)	22.5		1500		15				IC	CF/CST 225-9014 70 C/HLD 225-1 118
Paracetamol (inhalable dust)	MDHS 14/4	10 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112
Paraffin wax (fume)	OSHA PV2047	2 mg/m ³	6 mg/m ³	100		1000		100 min				GC-FID	CF/CST 225-706 112 C/HLD 225-1 118
Paraquat dichloride (ISO) (respirable dust)	MDHS 14/4	0.08 mg/m ³		1440		3000		8				GR	CYC 225-69 129 FLT 225-58F 112
Paraquat dichloride (ISO) (respirable dust)	MDHS 14/4	0.08 mg/m ³		960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112
Pentaerythritol (inhalable dust)	MDHS 14/4	10 mg/m ³	20 mg/m ³	960		2000		8				GR	IOM 225-70A 124 FLT 225-58F 112

See page 244 for abbreviations.

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Pentaerythritol (respirable dust)	MDHS 14/4	4 mg/m ³				1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112
Pentaerythritol (respirable dust)	MDHS 14/4	4 mg/m ³				960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112
Pentane-2-one	MDHS 88	200 ppm (716 mg/m ³)	250 ppm (895 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Pentane-2-one	MDHS 96	200 ppm (716 mg/m ³)	250 ppm (895 mg/m ³)	10		20		8				GC-FID	ST 226-01 50
Pentane-3-one	MDHS 88	200 ppm (716 mg/m ³)	250 ppm (895 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 or PS 575-002 84
Pentane	MDHS 104	600 ppm (1800 mg/m ³)		6		50		2				TD, GC	ST 226-358 54
Pentane	MDHS 88	600 ppm (1800 mg/m ³)		diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Pentyl acetates (all isomers)	MDHS 88	50 ppm (270 mg/m ³)	100 ppm (541 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-001 84
Pentyl acetates (all isomers)	MDHS 96	50 ppm (270 mg/m ³)	100 ppm (541 mg/m ³)	5		20		4				GC-FID	ST 226-01 50
Peroxodisulphate salts	MDHS 79/2			960	30	2000	2000	8	15			IC	IOM 225-70A 124 FLT 225-1930 104
p-Phenol	MDHS 104	2 ppm (7.8 mg/m ³)	4 ppm (16 mg/m ³)	12	1.5	100	100	2	15			TD, GC	ST 226-357 54
p-Phenol	MDHS 96	2 ppm (7.8 mg/m ³)	4 ppm (16 mg/m ³)	24	3	100	200	4	15			GC-FID	ST 226-95 52
2-Phenyldiamine	OSHA 87	0.1 mg/m ³		100		1000		100 min				HPLC-UV	CF/CST 225-9004 70 C/HLD 225-1 118
Phenylpropene (alpha-methyl styrene)	MDHS 96	50 ppm (246 mg/m ³)	100 ppm (491 mg/m ³)	10	3	20	200	8	15			GC-FID	ST 226-01 50
2-Phenylpropene (alpha-methyl styrene)	MDHS 104	50 ppm (246 mg/m ³)	100 ppm (491 mg/m ³)	12	1.5	100	100	2	15			TD, GC	ST 226-357 54
2-Phenylpropene (alpha-methyl styrene)	MDHS 88	50 ppm (246 mg/m ³)	100 ppm (491 mg/m ³)	diffusive	diffusive	diffusive	diffusive					GC-FID	PS 575-002 84
Phorate (ISO)	NIOSH 5600	0.05 mg/m ³	0.2 mg/m ³	240		1000		4				GC-FPD	ST 226-58 51
Phosgene	OSHA 61	0.02 ppm (0.08 mg/m ³)	0.06 ppm (0.25 mg/m ³)	240		1000		4				GC-NPD	ST 226-117 52
Phosphine	OSHA 1003	0.1 ppm (0.14 mg/m ³)	0.2 ppm (0.28 mg/m ³										

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		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
Pyrethrum	OSHA 70	1 mg/m ³		60		1000		1		GC-ECD	ST 226-30-16 50		
Pyridine	MDHS 104	5 ppm (16 mg/m ³)	10 ppm (33 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-357 54		
Pyridine	MDHS 88	5 ppm (16 mg/m ³)	10 ppm (33 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
2-Pyridine	MDHS 96	5 ppm (16 mg/m ³)	10 ppm (33 mg/m ³)	48		100		8		GC-FID	ST 226-01 50		
Pyridylamine	OSHA PV2143	0.5 ppm (2 mg/m ³)	2 ppm (7.8 mg/m ³)	240		1000		4		GC-NPD	CF/CST 225-9004 70 C/HLD 225-1 118		
Pyrocatechol	OSHA PV2014	5 ppm (23 mg/m ³)		100		1000		100 min		HPLC-UV	ST 226-57 51		
Refractory ceramic & special purpose fibres	MDHS 14/4	5 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Refractory ceramic & special purpose fibres	MDHS 59/2	0.3 fibre/ml		240		1000		8		PCM	FLT/CL 225-54A 125 FLT 225-1913 104		
Rhodium (metal fume & dust) as Rh	MDHS 91/2	0.1 mg/m ³	0.3 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Rhodium (soluble salts) as Rh	MDHS 91/2	0.001 mg/m ³	0.003 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Rosin-based solder flux fume	MDHS 83/3	0.05 mg/m ³	0.15 mg/m ³	960	30	2000	2000	8	15	GC-FID	FLT 225-8050 104		
Rotenone (ISO)	NIOSH 5007	5 mg/m ³	10 mg/m ³	120		1000		2		HPLC-UV	FLT 225-17-01 110 CST 225-4 118		
Rouge (total inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Rouge (total respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Rouge (total respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Rubber fume	MDHS 47/3	0.6 mg/m ³		960		2000		8		GR, SE	IOM 225-70A 124 FLT 225-58F 112		
Rubber process dust	MDHS 14/4	6 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Selenium & compounds (except hydrogen selenide) (as Se)	MDHS 91/2	0.1 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Silica amorphous (inhalable dust)	MDHS 14/4	6 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Silica amorphous (respirable dust)	MDHS 14/4	2.4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Silica amorphous (respirable dust)	MDHS 14/4	2.4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Silica fused (respirable dust)	MDHS 14/4	0.08 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Silica fused (respirable dust)	MDHS 14/4	0.08 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Silica crystalline (respirable)	MDHS 101/2	0.1 mg/m ³		1440		3000		8		IR, XRD	CYC 225-69 129 FLT 225-58F 112		
Silica crystalline (respirable)	MDHS 101/2	0.1 mg/m ³		960		2000		8		IR, XRD	IOM 225-70A 124 FLT 225-58F 112		
Silicon carbide (not whiskers) (total inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Silicon carbide (not whiskers) (total respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Silicon carbide (not whiskers) (total respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Silver (soluble compounds as Ag)	MDHS 91/2	0.01 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Silver metallic	MDHS 91/2	0.1 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Sodium azide (as NaN ₃)	OSHA ID-211	0.1 mg/m ³	0.3 mg/m ³		5		1000		5 min	IC-UV	ST 226-55 51 FLT 225-537-P 109		
Sodium hydrogen sulphite	OSHA ID-121	5 mg/m ³		960		2000		8		AA or AES	F/CST 225-3-01 104 C/HLD 225-1 118		
Sodium hydroxide - Further analytical method required	MDHS 14/4		2 mg/m ³		10		2000		15	GR, AA or AES	IOM 225-70A 124 FLT 225-1930 104		
Softwood dust	MDHS 14/4	5 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Starch (respirable)	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Starch (respirable)	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Starch (total inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Styrene	MDHS 104	100 ppm (430 mg/m ³)	250 ppm (1080 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-358 54		
Styrene	MDHS 88	100 ppm (430 mg/m ³)	250 ppm (1080 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-006 84		
Styrene	MDHS 96	100 ppm (430 mg/m ³)	250 ppm (1080 mg/m ³)	10	5	20	330	8	15	GC-FID	ST 226-01 50		
Sucrose	MDHS 14/4	10 mg/m ³	20 mg/m ³	960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Sulfur dioxide	NIOSH 6004	0.5 ppm (1.3 mg/m ³)	1 ppm (2.7 mg/m ³)	180	15	1000	1000	3	15	IC	CF/CST 225-9004 70 C/HLD 225-1 118		
Sulphuric acid	NIOSH 7908	0.05 mg/m ³		960		2000		8		IC-CD	CF/CST 225-9033 70 C/HLD 225-1 118		
Sulphuric acid	OSHA 113	0.05 mg/m ³		480		2000		4		IC	PFI 225-3861 130 FLT 225-5 104		
Sulphuric acid										IS	225-388 130 SP 225-27 118		
Sulphur dioxide	NIOSH 6012	5 ppm (21 mg/m ³)	10 ppm (42 mg/m ³)	10		20		8		IC-ECN	ST 226-16 50		
Talc (respirable dust)	MDHS 14/4	1 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Talc (respirable dust)	MDHS 14/4	1 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Tantalum	MDHS 91/2	5 mg/m ³	10 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Tellurium & compounds (except hydrogen telluride) as Te	MDHS 91/2	0.1 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
1,1,2,2-Terphenyls (o- isomers)	NIOSH 5021		0.5 ppm (4.8 mg/m ³)		22.5		1500		15	GC-FID	F/CST 225-1713 110 C/HLD 225-1 118		
Tetrabromomethane	MDHS 96	0.5 ppm (7.2 mg/m ³)		96		200		8		GC-FID	ST 226-10 50		
Tetrachloroethane	MDHS 96			24		50		8		GC-FID	ST 226-81A 51		

See page 244 for abbreviations.

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Chemical Hazard	Agency Reference	S A M P L I N G										Analytical Method	SKC Collecting Equipment and Page No.
		WEL		Vol. (liter)		Rate (ml/min)		Time		TWA (hr)	STEL (min)		
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA	STEL				
1,1,2,2-Tetrachloroethane	MDHS 88			diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Tetrachloroethylene	MDHS 104	20 ppm (138 mg/m ³)	40 ppm (275 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-357 54		
Tetrachloroethylene	MDHS 104	20 ppm (138 mg/m ³)	40 ppm (275 mg/m ³)	12		100		2		GC-FID	ST 226-357 54		
Tetrachloroethylene	MDHS 88	20 ppm (138 mg/m ³)	40 ppm (275 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 or PS 575-002 84		
Tetrachloroethylene	MDHS 96	20 ppm (138 mg/m ³)	40 ppm (275 mg/m ³)	3		20		2.5		GC-FID	ST 226-01 50		
Tetrachlorophthalic anhydride	MDHS 62/2			960	30	2000	2000	8	15	HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Tetraethyl lead (as Pb)	NIOSH 2533			96		200		8		GC-PID	ST 226-30-04 50		
Tetrahydrofuran	MDHS 88	50 ppm (150 mg/m ³)	100 ppm (300 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-002 84		
Tetrahydrofuran	MDHS 96	50 ppm (150 mg/m ³)	100 ppm (300 mg/m ³)	9	1.5	20	100	7	15	GC-FID	ST 226-01 50		
Thallium (soluble compounds) (as Tl)	MDHS 91/2	0.1 mg/m ³		960		2000		8		XRFS	IOM 225-70A 124 FLT 225-1930 104		
Tin compounds (inorganic except SnH ₄) (as Sn)	MDHS 91/2	2 mg/m ³	4 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A 124 FLT 225-1930 104		
Tin compounds (organic except cyhexatin) (ISO) (as Sn)	NIOSH 5504	0.1 mg/m ³	0.2 mg/m ³	480		1000		8		HPLC AA-GF	ST 226-30 50 F/CST 225-706 112		
Titanium dioxide - respirable	MDHS 14/4	4 mg/m ³		1440		3000		8		GR	CYC 225-69 129 FLT 225-58F 112		
Titanium dioxide - respirable	MDHS 14/4	4 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Titanium dioxide (inhalable)	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A 124 FLT 225-58F 112		
Toluene	MDHS 104	50 ppm (191 mg/m ³)	100 ppm (384 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-358 54		
Toluene	MDHS 88	50 ppm (191 mg/m ³)	100 ppm (384 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Toluene	MDHS 96	50 ppm (191 mg/m ³)	100 ppm (384 mg/m ³)	6	3	100	200	1	15	GC-FID	ST 226-01 50		
o-Toluidine	MDHS 75/2	0.1 ppm (0.5 mg/m ³)		200		2000		100 min		HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
o-Toluidine	MDHS 96	0.1 ppm (0.5 mg/m ³)		48		100		8		GC-FID	ST 226-01 50		
o-Toluidine	NIOSH 2017	0.1 ppm (0.5 mg/m ³)		24		200		2		GC-FID	CF/CST 225-9004 70 C/HLD 225-1 118		
Tributyl phosphate (all isomers)	NIOSH 5034	5 mg/m ³	5 mg/m ³	90		1500		1		GC-FPD	F/CST 225-3-01 104 C/HLD 225-1 118		
1,2,4-Trichlorobenzene	NIOSH 5517	1 ppm	5 ppm	12	3	25	200	8	15	GC-ECD	FLT 225-17-03 110 ST 226-30-04 50		
1,1,1-Trichloroethane	MDHS 104	100 ppm (555 mg/m ³)	200 ppm (1110 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-358 54		
1,1,1-Trichloroethane	MDHS 88	100 ppm (555 mg/m ³)	200 ppm (1110 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
1,1,1-Trichloroethane	MDHS 96	100 ppm (555 mg/m ³)	200 ppm (1110 mg/m ³)			200		15		GC-FID	ST 226-01 50		
1,1,2-Trichloroethane	MDHS 88			diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
1,1,2-Trichloroethane	MDHS 96			10		20		8		GC-FID	ST 226-01 50		
Trichloroethylene	MDHS 88	100 ppm (550 mg/m ³)	150 ppm (820 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
Trichloroethylene	MDHS 96	100 ppm (550 mg/m ³)	150 ppm (820 mg/m ³)	10	2	20	200	8	15	GC-FID	ST 226-01 50		
1,1,2-Trichloroethylene	MDHS 104	100 ppm (550 mg/m ³)	150 ppm (820 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-357 54		
Trichloronitromethane	OSHA PV2103	0.1 ppm (0.68 mg/m ³)	0.3 ppm (2.1 mg/m ³)	5		200		25 min		GC-ECD	ST 226-93 52		
Triethylamine	OSHA PV2060	2 ppm (8 mg/m ³)	4 ppm (17 mg/m ³)	10		100		100 min		GC-FID	ST 226-98 52		
Triglycidyl isocyanurate (TGIC)	MDHS 85/2	0.1 mg/m ³		200	30	2000	2000	100 min	15	HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Triglycidyl isocyanurate (TGIC)	OSHA PV2055	0.1 mg/m ³		60		1000		1		GC-ECD	CF/CST 225-9027 70 C/HLD 225-1 118		
Trimellitic anhydride	MDHS 62/2	0.04 mg/m ³	0.12 mg/m ³	960	30	2000	2000	8	15	HPLC-UV	IOM 225-70A 124 FLT 225-58F 112		
Trimethylbenzenes (all isomers or mixtures)	MDHS 104	25 ppm (125 mg/m ³)		12		100		2		TD, GC	ST 226-357 or ST 226-358 54		
3,5,5-Trimethylbenzenes (all isomers or mixtures)	MDHS 88			diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001 84		
2,4,6-Trimethylcyclohex-2-enone	MDHS 96		5 ppm (29 mg/m ³)	10		20		8		GC-FID	ST 226-81A 51		
3,5,5-Trimethylcyclohex-2-enone	MDHS 104		5 ppm (29 mg/m ³)		1.5								

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Chemical Hazard	Agency Reference	S A M P L I N G								Analytical Method	SKC Collecting Equipment and Page No.				
		WEL		Vol. (liter)		Rate (ml/min)		Time							
		TWA (ppm)	STEL (ppm)	TWA	STEL	TWA	STEL	TWA (hr)	STEL (min)						
Wood dust (respirable)	MDHS 14/4	See hardwood / soft wood		1440		3000		8		GR	CYC 225-69	129	FLT 225-58F	112	
Wood dust (respirable)	MDHS 14/4	See hardwood / soft wood		960		2000		8		GR	IOM 225-70A FOAM 225-772	124	FLT 225-58F	112	
Wool process dust	MDHS 14/4	10 mg/m ³		960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112	
Xylene (o-,m-,p-, or mixed isomers)	MDHS 104	50 ppm (220 mg/m ³)	100 ppm (441 mg/m ³)	12	1.5	100	100	2	15	TD, GC	ST 226-357	or	ST 226-358	54	
Xylene (o-,m-,p-, or mixed isomers)	MDHS 88	50 ppm (220 mg/m ³)	100 ppm (441 mg/m ³)	diffusive	diffusive	diffusive	diffusive			GC-FID	PS 575-001	or	PS 575-002	84	
Xylene (o-,m-,p-, or mixed isomers)	MDHS 96	50 ppm (220 mg/m ³)	100 ppm (441 mg/m ³)	21	3	50	200	7	15	GC-FID	ST 226-01		50		
Yttrium	MDHS 91/2	1 mg/m ³	3 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A	124	FLT 225-1930	104	
Zinc chloride (fume)	MDHS 91/2	1 mg/m ³	2 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A	124	FLT 225-1930	104	
Zinc distearate (inhalable dust)	MDHS 91/2	10 mg/m ³	20 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A	124	FLT 225-1930	104	
Zinc distearate (respirable dust)	MDHS 91/2	4 mg/m ³		1440		3000		8		XRFS	CYC 225-69	129	FLT 225-1930	104	
Zinc distearate (respirable dust)	MDHS 91/2	4 mg/m ³		960		2000		8		XRFS	IOM 225-70A FOAM 225-772	124	FLT 225-1930	104	
Zinc oxide	MDHS 14/4			960		2000		8		GR	IOM 225-70A	124	FLT 225-58F	112	
Zirconium compounds (as Zr)	MDHS 91/2	5 mg/m ³	10 mg/m ³	960	30	2000	2000	8	15	XRFS	IOM 225-70A	124	FLT 225-1930	104	

√ This application requires two tubes.

¶ Use two Cat. No. 226-36 tubes.



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See page 244 for abbreviations.