SGS EHS NAM

SGS IS THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

Air Sampling and Analysis

Lower Detection Limits Tables

Standard TO-15 Analysis

Analyte	CAS #	RL (ug/m3)	MDL (ug/m3)
Acetone	67-64-1	0.48	0.27
1,3-Butadiene	106-99-0	0.44	0.1
Benzene	71-43-2	0.64	0.038
Bromodichloromethane	75-27-4	1.3	0.18
Bromoform	75-25-2	2.1	0.39
Bromomethane	74-83-9	0.78	0.085
Bromoethene	593-60-2	0.87	0.096
Benzyl Chloride	100-44-7	1	0.29
Carbon disulfide	75-15-0	0.62	0.073
Chlorobenzene	108-90-7	0.92	0.12
Chloroethane	75-00-3	0.53	0.13
Chloroform	67-66-3	0.98	0.097
Chloromethane	74-87-3	0.41	0.032
3-Chloropropene	107-05-1	0.63	0.12
2-Chlorotoluene	95-49-8	1	0.13
Carbon tetrachloride	56-23-5	1.3	0.15
Cyclohexane	110-82-7	0.69	0.076
1,1-Dichloroethane	75-34-3	0.81	0.047
1,1-Dichloroethylene	75-35-4	0.79	0.066
1,2-Dibromoethane	106-93-4	1.5	0.14
1,2-Dichloroethane	107-06-2	0.81	0.084
1,2-Dichloropropane	78-87-5	0.92	0.089
1,4-Dioxane	123-91-1	0.72	0.19
Dichlorodifluoromethane	75-71-8	0.99	0.082
Dibromochloromethane	124-48-1	1.7	0.28
trans-1,2-Dichloroethylene	156-60-5	0.79	0.029
cis-1,2-Dichloroethylene	156-59-2	0.79	0.046
cis-1,3-Dichloropropene	10061-01-5	0.91	0.089

m-Dichlorobenzene	541-73-1	1.2	0.11
o-Dichlorobenzene	95-50-1	1.2	0.13
p-Dichlorobenzene	106-46-7	1.2	0.11
trans-1,3-Dichloropropene	10061-02-6	0.91	0.089
Ethanol	64-17-5	0.94	0.41
Ethylbenzene	100-41-4	0.87	0.066
Ethyl Acetate	141-78-6	0.72	0.14
4-Ethyltoluene	622-96-8	0.98	0.15
Freon 113	76-13-1	1.5	0.13
Freon 114	76-14-2	1.4	0.13
Heptane	142-82-5	0.82	0.072
Hexachlorobutadiene	87-68-3	2.1	0.49
Hexane	110-54-3	0.7	0.037
2-Hexanone	591-78-6	0.82	0.15
Isopropyl Alcohol	67-63-0	0.49	0.16
Methylene chloride	75-09-02	0.69	0.05
Methyl ethyl ketone	78-93-3	0.59	0.12
Methyl Isobutyl Ketone	108-10-1	0.82	0.15
Methyl Tert Butyl Ether	1634-04-4	0.72	0.069
Methylmethacrylate	80-62-6	0.82	0.13
Propylene	115-07-1	0.86	0.027
Styrene	100-42-5	0.85	0.08
1,1,1-Trichloroethane	71-55-6	1.1	0.18
1,1,2,2-Tetrachloroethane	79-34-5	1.4	0.19
1,1,2-Trichloroethane	79-00-5	1.1	0.17
1,2,4-Trichlorobenzene	120-82-1	1.5	0.66
1,2,4-Trimethylbenzene	95-63-6	0.98	0.16
1,3,5-Trimethylbenzene	108-67-8	0.98	0.16
2,2,4-Trimethylpentane	540-84-1	0.93	0.1
Tertiary Butyl Alcohol	75-65-0	0.61	0.042
Tetrachloroethylene	127-18-4	0.27	0.21
Tetrahydrofuran	109-99-9	0.59	0.15
Toluene	108-88-3	0.75	0.054
Trichloroethylene	79-01-06	0.21	0.1
Trichlorofluoromethane	75-69-4	1.1	0.16
Vinyl chloride	75-01-04	0.51	0.057
Vinyl Acetate	108-05-4	0.7	0.12
m,p-Xylene		0.87	0.15
o-Xylene	95-47-6	0.87	0.074
Xylenes (total)	1330-20-7	0.87	0.074
Additions:			
Naphthalene	91-20-3	1	0.48

Standard TO-15 + SIM Analysis

Analyte	CAS #	RL (ug/m3)	MDL (ug/m3)
Acetone	67-64-1	0.48	0.27
1,3-Butadiene	106-99-0	0.44	0.1
Benzene	71-43-2	0.016	0.008
Bromodichloromethane	75-27-4	0.033	0.0067
Bromoform	75-25-2	2.1	0.39
Bromomethane	74-83-9	0.78	0.085
Bromoethene	593-60-2	0.87	0.096
Benzyl Chloride	100-44-7	1	0.29
Carbon disulfide	75-15-0	0.62	0.073
Chlorobenzene	108-90-7	0.92	0.12
Chloroethane	75-00-3	0.53	0.13
Chloroform	67-66-3	0.024	0.0049
Chloromethane	74-87-3	0.41	0.032
3-Chloropropene	107-05-1	0.63	0.12
2-Chlorotoluene	95-49-8	1	0.13
Carbon tetrachloride	56-23-5	0.031	0.013
Cyclohexane	110-82-7	0.69	0.076
1,1-Dichloroethane	75-34-3	0.81	0.047
1,1-Dichloroethylene	75-35-4	0.0079	0.004
1,2-Dibromoethane	106-93-4	0.038	0.0077
1,2-Dichloroethane	107-06-2	0.02	0.0081
1,2-Dichloropropane	78-87-5	0.023	0.0092
1,4-Dioxane	123-91-1	0.72	0.19
Dichlorodifluoromethane	75-71-8	0.99	0.082
Dibromochloromethane	124-48-1	0.043	0.0085
trans-1,2-Dichloroethylene	156-60-5	0.79	0.029
cis-1,2-Dichloroethylene	156-59-2	0.79	0.046
trans-1,3-Dichloropropene	10061-02-6	0.023	0.0091
m-Dichlorobenzene	541-73-1	1.2	0.11
o-Dichlorobenzene	95-50-1	1.2	0.13
p-Dichlorobenzene	106-46-7	0.012	0.009
trans-1,3-Dichloropropene	10061-02-6	0.91	0.089
Ethanol	64-17-5	0.94	0.41
Ethylbenzene	100-41-4	0.87	0.066
Ethyl Acetate	141-78-6	0.72	0.14
4-Ethyltoluene	622-96-8	0.98	0.15
Freon 113	76-13-1	1.5	0.13
Freon 114	76-14-2	1.4	0.13

Heptane	142-82-5	0.82	0.072
Hexachlorobutadiene	87-68-3	2.1	0.49
Hexane	110-54-3	0.7	0.037
2-Hexanone	591-78-6	0.82	0.15
Isopropyl Alcohol	67-63-0	0.49	0.16
Methylene chloride	75-09-02	0.69	0.05
Methyl ethyl ketone	78-93-3	0.59	0.12
Methyl Isobutyl Ketone	108-10-1	0.82	0.15
Methyl Tert Butyl Ether	1634-04-4	0.72	0.069
Methylmethacrylate	80-62-6	0.82	0.13
Propylene	115-07-1	0.86	0.027
Styrene	100-42-5	0.85	0.08
1,1,1-Trichloroethane	71-55-6	0.011	0.0082
1,1,2,2-Tetrachloroethane	79-34-5	0.034	0.0069
1,1,2-Trichloroethane	79-00-5	0.027	0.0055
1,2,4-Trichlorobenzene	120-82-1	1.5	0.66
1,2,4-Trimethylbenzene	95-63-6	0.98	0.16
1,3,5-Trimethylbenzene	108-67-8	0.98	0.16
2,2,4-Trimethylpentane	540-84-1	0.93	0.1
Tertiary Butyl Alcohol	75-65-0	0.61	0.042
Tetrachloroethylene	127-18-4	0.014	0.01
Tetrahydrofuran	109-99-9	0.59	0.15
Toluene	108-88-3	0.75	0.054
Trichloroethylene	79-01-06	0.011	0.0081
Trichlorofluoromethane	75-69-4	1.1	0.16
Vinyl chloride	75-01-04	0.0051	0.0038
Vinyl Acetate	108-05-4	0.7	0.12
m,p-Xylene		0.87	0.15
o-Xylene	95-47-6	0.87	0.074
Xylenes (total)	1330-20-7	0.87	0.074
Additions:			
Naphthalene	91-20-3	1	0.48

TO-15 SIM Analysis

Analyte	CAS #	RL (ug/m3)	MDL (ug/m3)
Benzene	71-43-2	0.016	0.008
Bromodichloromethane	75-27-4	0.033	0.0067
Chloroform	67-66-3	0.024	0.0049
Carbon tetrachloride	56-23-5	0.031	0.013
1,1-Dichloroethylene	75-35-4	0.0079	0.004
1,2-Dibromoethane	106-93-4	0.038	0.0077
1,2-Dichloroethane	107-06-2	0.02	0.0081
1,2-Dichloropropane	78-87-5	0.023	0.0092
Dibromochloromethane	124-48-1	0.043	0.0085
cis-1,3-Dichloropropene	10061-01-5	0.023	0.0091
p-Dichlorobenzene	106-46-7	0.012	0.009
trans-1,3-Dichloropropene	10061-02-6	0.023	0.0091
1,1,1-Trichloroethane	71-55-6	0.011	0.0082
1,1,2,2-Tetrachloroethane	79-34-5	0.034	0.0069
1,1,2-Trichloroethane	79-00-5	0.027	0.0055
Tetrachloroethylene	127-18-4	0.014	0.01
Trichloroethylene	79-01-06	0.011	0.0081
Vinyl chloride	75-01-04	0.0051	0.0038

TO-15 MADEP APH

Analyte	CAS #	RL (ug/m3)	MDL (ug/m3)
Benzene	71-43-2	1.3	0.17
1,3-Butadiene	106-99-0	0.88	0.22
Ethylbenzene	100-41-4	1.7	0.7
Methyl Tert Butyl Ether	1634-04-4	1.4	0.41
Naphthalene	91-20-3	2.1	1.1
Toluene	108-88-3	1.5	0.58
m,p-Xylene		1.7	1.4
o-Xylene	95-47-6	1.7	0.61
C5- C8 Aliphatics (Unadj.)		9.1	5
C9- C12 Aliphatics (Unadj.)		14	6.6
C5- C8 Aliphatics (APH)		9.1	
C9- C12 Aliphatics (APH)		14	
C9- C10 Aromatics (APH)		10	4

TO-3 Analysis

Analyte	RL (ug/m3)	MDL (ug/m3)
TPH (C1-C4) as Methane	5	0.373
TPH (C1-C4) as Propane	5	0.0635
TPH (C5-C10) as Pentane	5	0.0771
TPH (C5-C10) as Hexane	5	0.0425
TPH as Equiv Pentane	5	0.0745
TPH as Equiv Methane	5	0.423
TPH as Equiv Hexane	5	0.0437

TO-15 Ontario PHC

Analyte	CAS No.	RL (ug/m3)	MDL (ug/m3)
Benzene	71-43-2	0.2	0.01
Ethylbenzene	100-41-4	0.2	0.009
Naphthalene	91-20-3	0.2	0.086
Toluene	108-88-3	0.2	0.01
m,p-Xylene		0.2	0.037
o-Xylene	95-47-6	0.2	0.011
PHC F1 (C6-C10)		1.6	0.6
PHC F1 (C6-C10) - BTEX		1.6	0.6
PHC F2 (> C10-C16)		0.6	0.4
PHC F2 (> C10-C16) - Nap		0.6	0.4
Aliphatics C6-C8 (Unadj.)		1	0.061
Aliphatics > C8-C10 (Unadj.)		0.6	0.12
Aliphatics > C10-C12 (Unadj.)		0.6	0.061
Aromatics > C8-C10 (Unadj.)		0.6	0.03
Aromatics > C10-C12 (Unadj.)		0.4	0.025
15 compounds reported in list ONAPH			