22.8.2016

LDL FOR DX-4040 GAS-LIB-402 & GAS-LIB-406 COMPOUNDS

#	Compound name	Formula	CAS number	*LDL in N2 (ppm)
	Standard components			
1	Water	H_2O	7732-18-5	
2	Carbon dioxide	CO_2	124-38-9	
3	Carbon monoxide	CO	630-08-0	0.071
4	Nitrous oxide	N_2O	10024-97-2	0.008
5	Methane	CH_4	74-82-8	0.053
	Additional components			
	Hydrocarbons			
6	1,3-Butadiene	CH_2=CHCH=CH_2	106-99-0	0.102
7	1-Butene	C_4H_8	106-98-9	0.052
8	1-Heptene	C_7H_{14}	592-76-7	0.019
9	1-Hexene	CH_2=CHC_4H_9	592-41-6	0.027
10	1-Pentene	CH_2=$CHCH_2CH_2CH_3$	109-67-1	0.034
11	2,2-Dimethylbutane	C_6H_{14}	75-83-2	0.012
12	2,3-Dimethylbutane	C_6H_{14}	79-29-8	0.012
13	Acetylene (Ethyne)	CH≡CH	74-86-2	0.134
14	*cis* -2-Butene	CH_3CH=$CHCH_3$	590-18-1	0.069
15	cis-2-Pentene	C_2H_5CH=$CHCH_3$	627-20-3	0.171
16	Ethane	C_2H_6	74-84-0	0.063
17	Ethylene (Ethene)	C_2H_4	74-85-1	0.088
18	Isobutane (2-Methyl propane)	$CH_3CH(CH_3)CH_3$	75-28-5	0.017
19	Isobutene (2-Methyl-1-propene)	CH_2=$C(CH_3)_2$	115-11-7	0.055
20	Isohexane (2-Methyl pentane)	$(CH_3)_2CHC_3H_7$	107-83-5	0.014
21	Isooctane (2,2,4-Trimethyl pentane)	$(CH_3)_3CCH_2CH(CH_3)_2$	540-84-1	0.010
22	Isopentane (2-Methyl butane)	$(CH_3)_2CHC_2H_5$	78-78-4	0.014
23	*n* -Butane	C_4H_{10}	106-97-8	0.022
24	*n* -Decane	$C_{10}H_{22}$	124-18-5	0.014
25	*n*- Dodecane	$C_{12}H_{26}$	112-40-3	0.006
26	*n* -Heptane	C_7H_{16}	142-82-5	0.013
27	*n* -Hexane	C_6H_{14}	110-54-3	0.015
28	*n* -Nonane	C_9H_{20}	111-84-2	0.008
29	*n* -Octane	C_8H_{18}	111-65-9	0.010
30	*n* -Pentane	C_5H_{12}	109-66-0	0.018

31	*n*-Propane	C_3H_8	74-98-6	0.027
32	*n*-Propene	C_3H_6	115-07-1	0.122
33	*n*-Undecane	$C_{11}H_{24}$	1120-21-4	0.007
34	*trans*-2-Butene	$CH_3CH=CHCH_3$	624-64-6	0.052
35	trans-2-Pentene	$C_2H_5CH=CHCH_3$	646-04-8	0.092
	Aromatic or cyclic hydrocarbons			
36	1,2,3-Trimethylbenzene	$1,2,3\text{-}(CH_3)_3C_6H_3$	526-73-8	0.052
37	1,2,4-Trimethylbenzene	$1,2,4\text{-}(CH_3)_3C_6H_3$	95-63-6	0.037
38	1,2-Diethylbenzene (o-diethylbenzene)	$C_{10}H_{14}$	135-01-3	0.017
39	1,3,5-Trimethylbenzene	$1,3,5\text{-}(CH_3)_3C_6H_3$	108-67-8	0.033
40	1,3-Diethylbenzene (m-diethylbenzene)	$C_{10}H_{14}$	141-93-5	0.016
41	1,4-Diethylbenzene (p-diethylbenzene)	$C_{10}H_{14}$	105-05-5	0.016
42	2-Ethyltoluene	$2\text{-}CH_3CH_2\text{-}C_6H_5CH_3$	611-14-3	0.033
43	3-Ethyltoluene	$3\text{-}CH_3CH_2\text{-}C_6H_5CH_3$	620-14-4	0.040
44	4-Ethyltoluene	$4\text{-}CH_3CH_2\text{-}C_6H_5CH_3$	622-96-8	0.041
45	Benzene	C_6H_6	71-43-2	0.067
46	Cyclohexane	C_6H_{12}	110-82-7	0.007
47	Cyclopentane	C_5H_{10}	287-92-3	0.015
48	Cyclopentene	C_5H_8	142-29-0	0.037
49	Delta-3-Carene	$C_{10}H_{16}$	13466-78-9	0.020
50	Ethyl benzene	$C_6H_5C_2H_5$	100-41-4	0.041
51	Ethylcyclohexane	$C_6H_{11}C_2H_5$	1678-91-7	0.008
52	Limonene	$C_{10}H_{16}$	138-86-3	0.023
53	Methylcyclohexane	$C_6H_{11}CH_3$	108-87-2	0.009
54	Methylcyclopentane	$C_5H_9CH_3$	96-37-7	0.013
55	*m*-Xylene	$1,3\text{-}(CH_3)_2C_6H_4$	108-38-3	0.058
56	Naphthalene	$C_{10}H_8$	91-20-3	0.038
57	*o*-Xylene	$1,2\text{-}(CH_3)_2C_6H_4$	95-47-6	0.065
58	*p*-Xylene	$1,4\text{-}(CH_3)_2C_6H_4$	106-42-3	0.052
59	Styrene	$C_6H_5CH=CH_2$	100-42-5	0.078
60	Toluene	$C_6H_5CH_3$	108-88-3	0.065
61	*α*-Pinene	$C_{10}H_{16}$	80-56-8	0.011
62	*β*-Pinene	$C_{10}H_{16}$	127-91-3	0.013
	Acids and derivatives			
63	1-Methoxy-2-propyl acetate	$C_6H_{12}O_3$	108-65-6	0.003
64	2-(2-Butoxyethoxy)ethyl acetate	$C_{10}H_{20}O_4$	124-17-4	0.005
65	2-Butoxyethyl acetate	$C_8H_{16}O_3$	112-07-2	0.006
66	2-Ethoxyethyl acetate (Cellosolve acetate)	$C_6H_{12}O_3$	111-15-9	0.005

67	2-Methoxyethyl acetate (Methyl cellosolve acetate)	$C_5H_{10}O_3$	110-49-6	0.005
68	Acetic acid	CH_3COOH	64-19-7	0.020
69	Acetic acid anhydride	$C_4H_6O_3$	108-24-7	0.004
70	Acrylic acid	CH_2=CHCOOH	79-10-7	0.020
71	Butyl acetate	$CH_3COO(CH_2)_3CH_3$	123-86-4	0.009
72	Butyl acrylate (2-propenoic acid butyl ester)	$C_7H_{12}O_2$	141-32-2	0.004
73	Butyric acid (butanoic acid)	$C_4H_8O_2$	107-92-6	0.013
74	Dimethyl carbonate (DCM; Methyl carbonate)	$CH_3OCOOCH_3$	616-38-6	0.002
75	Ethyl acetate	$CH_3COOC_2H_5$	141-78-6	0.006
76	Ethyl acetoacetate (Acetoacetic ester	$C_6H_{10}O_3$	141-97-9	0.008
77	Ethyl acrylate	$C_5H_8O_2$	140-88-5	0.004
78	Ethyl lactate (Ethyl α-hydroxypropionate)	$C_5H_{10}O_3$	97-64-3	0.007
79	Ethyl-3-ethoxypropionate	$C_7H_{15}O_3$	763-69-9	0.008
80	Formic acid	CH_2O_2	64-18-6	0.015
81	Furfuryl acetate	$C_7H_8O_3$	623-17-6	0.004
82	Heptanoic acid	$C_7H_{14}O_2$	111-14-8	0.019
83	Hexanoic acid (caproic acid)	$C_6H_{12}O_2$	142-62-1	0.020
84	Isopentyl acetate	$C_7H_{14}O_2$	123-92-2	0.009
85	Isopropyl acetate	$CH_3COOCH(CH_3)_2$	108-21-4	0.005
86	Methacrylic acid	$C_4H_6O_2$	79-41-4	0.007
87	Methyl acetate	CH_3COOCH_3	79-20-9	0.007
88	Methyl acrylate	$C_4H_6O_2$	96-33-3	0.008
89	Methyl formate	$HCOOCH_3$	107-31-3	0.014
90	Methyl methacrylate	$C_5H_8O_2$	80-62-6	0.008
91	Propionic acid	CH_3CH_2COOH	79-09-4	0.027
92	Propyl acetate	$CH_3COOC_3H_7$	109-60-4	0.005
93	Valeric acid (pentanoic acid)	$C_5H_{10}O_2$	109-52-4	0.016
94	Vinyl acetate	$CH_3COOCH=CH_2$	108-05-4	0.003
	Aldehydes			
95	2-Ethylhexylaldehyde (2-Ethylhexanal)	$C_8H_{16}O$	123-05-7	0.012
96	2-methylbutylaldehyde	$C_5H_{10}O$	96-17-3	0.036
97	5-Methylfurfural (5-Methyl-2-furaldehyde)	$C_6H_6O_2$	620-02-0	0.049
98	Acetaldehyde	CH_3CHO	75-07-0	0.067
99	Acrolein (Acrylic aldehyde)	CH_2=CHCHO	107-02-8	0.126
100	Benzaldehyde	C_7H_6O	100-52-7	0.048
101	Crotonaldehyde	C_4H_6O	4170-30-3	0.066
102	Formaldehyde	HCOH	50-00-0	0.043
103	Furfural (2-Furaldehyde)	$C_5H_4O_2$	98-01-1	0.074

104	Glutaraldehyde	$C_5H_8O_2$	111-30-8	0.021
105	Hexanal (Hexanaldehyde)	$C_6H_{12}O$	66-25-1	0.023
106	Isobutyraldehyde (2-Methylpropanal)	$(CH_3)_2CHCHO$	78-84-2	0.037
107	Isovaleraldehyde	$(CH_3)_2CHCH_2CHO$	590-86-3	0.023
108	o-Phthaldehyde (OPA)	$C_8H_6O_2$	643-79-8	0.030
109	*o* -Tolualdehyde	$2\text{-}CH_3C_6H_4CHO$	529-20-4	0.010
110	Propionaldehyde (Propanal)	C_2H_5CHO	123-38-6	0.049
	Ketones			
111	(+)-Carvone	$C_{10}H_{14}O$	2244-16-8	0.037
112	(+)-Menthone	$C_{10}H_{18}O$	3391-87-5	0.010
113	2,3-butanedione (Diacetyl)	$C_4H_6O_2$	431-03-8	0.029
114	2,3-heptanedione	$CH_3(CH_2)_3COCOCH_3$	96-04-8	0.035
115	2,3-hexanedione	$CH_3CH_2CH_2COCOCH_3$	3848-24-6	0.034
116	2,3-pentanedione	$C_5H_8O_2$	600-14-6	0.110
117	2-Acetylfuran (2-Furyl methyl ketone)	$C_6H_6O_2$	1192-62-7	0.016
118	5-methyl-2-hexanone (MIAK; methyl isoamyl ketone)	$C_7H_{14}O$	110-12-3	0.015
119	Acetoin (3-hydroxybutanone)	$C_4H_8O_2$	513-86-0	0.024
120	Acetone	CH_3COCH_3	67-64-1	0.035
121	Acetophenone (Phenyl methyl ketone)	$CH_3COC_6H_5$	98-86-2	0.012
122	Benzyl Methyl Ketone	$C_9H_{10}O$	103-79-7	0.067
123	Cyclohexanone (Cyclohexyl ketone)	$C_6H_{10}O$	108-94-1	0.019
124	Cyclopentanone	C_5H_8O	120-92-3	0.029
125	Diethyl ketone (DEK; 3-Pentanone)	$C_2H_5COC_2H_5$	96-22-0	0.052
126	Diketene (4-methylideneoxetan-2-one , γ-methylenebutyrolactone)	$C_4H_4O_2$	674-82-8	0.037
127	Methyl ethyl ketone (MEK)	$CH_3COC_2H_5$	78-93-3	0.068
128	Methyl isobutyl ketone (MIBK; 4-Methyl-2-pentanone)	$CH_3COCH_2CH(CH_3)_2$	108-10-1	0.022
	Alcohols			
129	(±)-Menthol (2-Isopropyl-5-methylcyclohexanol, Hexahydrothymol)	$C_{10}H_{20}O$	1490-04-6	0.009
130	1,2-Propanediol (propylene glycol)	CH3CH(OH)CH2OH	57-55-6	0.061
131	1-Butanol	C_4H_9OH	71-36-3	0.030
132	1-Hexanol	$C_6H_{14}O$	111-27-3	0.018
133	1-Pentanol (Amyl alcohol)	$C_5H_{11}OH$	71-41-0	0.018
134	1-Propanol	C_3H_7OH	71-23-8	0.040
135	2-Butanol (*sec* -Butyl alcohol)	$CH_3CHOHCH_2CH_3$	78-92-2	0.028
136	2-Ethoxyethanol (Cellosolve)	$CH_3CH_2\text{-}O\text{-}CH_2CH_2OH$	110-80-5	0.020
137	2-Methoxy ethanol (methyl cellosolve)	$CH_3\text{-}O\text{-}CH_2CH_2OH$	109-86-4	0.024
138	Ethanol	C_2H_5OH	64-17-5	0.102
139	Furfuryl alcohol (2-Furan methanol)	$C_5H_6O_2$	98-00-0	0.047

140	Isobutanol (2-Methyl-1-propanol)	$(CH_3)_2CHCH_2OH$	78-83-1	0.026
141	Isopentanol (3-Methyl-1-butanol)	$(CH_3)_2CHCH_2CH_2OH$	123-51-3	0.021
142	Isopropanol (2-Propanol; Isopropyl alcohol)	$CH_3CHOHCH_3$	67-63-0	0.031
143	*m*-Cresol (3-Methyl phenol)	$3\text{-}CH_3C_6H_4OH$	108-39-4	0.029
144	Methanol	CH_3OH	67-56-1	0.067
145	o-Cresol (2-Methyl phenol)	$2\text{-}CH_3C_6H_4OH$	95-48-7	0.027
146	*p*-Cresol (4-Methyl phenol)	$4\text{-}CH_3C_6H_4OH$	106-44-5	0.012
147	Phenol	C_6H_5OH	108-95-2	0.026
148	*tert*-Butanol (1,1-Dimethyl ethanol)	$(CH_3)_3COH$	75-65-0	0.024
	Ethers			
149	2-Hydroxybenzoic acid methyl ester (Methyl salicylate)	$C_8H_8O_3$	119-36-8	0.007
150	2-methoxyphenol (Guaiacol)	$C_6H_4(OCH_3)OH$	90-05-1	0.008
151	Diethyl ether (Ethoxy ethane)	$C_2H_5OC_2H_5$	60-29-7	0.012
152	Ethylene dimethyl ether (1,2-Dimethoxyethane)	$CH_3OC_2H_4OCH_3$	110-71-4	0.013
153	Isosafrole	$C_{10}H_{10}O_2$	120-58-1	0.007
154	Methylene dimethyl ether (Methylal; Dimethoxy methane)	$CH_3OCH_2OCH_3$	109-87-5	0.014
155	*tert*-Butyl methyl ether (MTBE; 2-Methoxy-2-methyl propane)	$CH_3OC(CH_3)_3$	1634-04-4	0.016
	Epoxy compounds			
156	2,5-dimethylfuran	C_6H_8O	625-86-5	0.059
157	2-methylfuran	$C_5H_6O_2$	534-22-5	0.117
158	Ethylene oxide (Oxirane; Epoxyethane)	C_2H_4O	75-21-8	0.063
159	Furan (Furfuran)	C_4H_4O	110-00-9	0.139
160	Maleic anhydride	$C_4H_2O_3$	108-31-6	0.031
161	Tetrahydrofuran (THF; 1,4-Epoxybutane)	C_4H_8O	109-99-9	0.033
	Sulfur compounds			
162	1,2-Ethanethiol (1,2-Dimercaptoethane Dithioglycol Ethylene mercaptan)	$C_2H_6S_2$	540-63-6	0.146
163	Benzenethiol (Phenylthiol; Thiophenol)	C_6H_6S	108-98-5	0.083
164	Carbon disulfide	CS_2	75-15-0	0.086
165	Carbonyl sulfide	COS	463-58-1	0.002
166	Dimethyl disulfide (DMDS)	$(CH_3)_2S_2$	624-92-0	0.071
167	Dimethyl sulfide (DMS)	$(CH_3)_2S$	75-18-3	0.081
168	Dimethyl sulfoxide	$(CH_3)_2SO$	67-68-5	0.020
169	Ethylmercaptan (Ethanethiol)	C_2H_5SH	75-08-1	0.075
170	Methylmercaptan (Methanethiol)	CH_3SH	74-93-1	0.207
171	Tetrahydrothiophene (Tetramethylene sulfide)	C_4H_8S	110-01-0	0.024
	Nitrogen compounds			
172	(-)-Nicotine	$C_{10}H_{14}N_2$	54-11-5	0.016
173	1-Methyl-2-pyrrolidone	C_5H_9NO	872-50-4	0.049

174	1-Methylimidazol	$C_4H_6N_2$	616-47-7	0.098
175	2,4-Toluene diisocyanate	$C_9H_6N_2O_2$	584-84-9	0.0007
176	2-Methylpyrazine	$C_5H_6N_2$	109-08-0	0.099
177	Acetonitrile	CH_3CN	75-05-8	1.339
178	Acrylonitrile	CH_2=CHCN	107-13-1	0.176
179	Allylcyanide (3-Butenenitrile)	C_4H_5N	109-75-1	0.154
180	Aniline (Benzenamine)	$C_6H_5NH_2$	62-53-3	0.032
181	Butyl isocyanate (1-Isocyanatobutane)	C_5H_9NO	111-36-4	0.002
182	Butylamine (1-Butanamine)	$C_4H_9NH_2$	109-73-9	0.040
183	Cyclohexylamine	$C_6H_{11}NH_2$	108-91-8	0.011
184	Dibutylamine	$C_8H_{19}N$	111-92-2	0.012
185	Diethylamine	$(C_2H_5)_2NH$	109-89-7	0.030
186	Dihexylamine	$C_{12}H_{27}N$	143-16-8	0.007
187	Dimethylamine	$(CH_3)_2NH$	124-40-3	0.047
188	Ethylmorpholine	$C_6H_{13}NO$	100-74-3	0.017
189	Hexylamine	$C_6H_{15}N$	111-26-2	0.014
190	Hydrogen cyanide	HCN	74-90-8	0.177
191	Isopropylamine (2-Propanamine)	$CH(CH_3)_2NH_2$	75-31-0	0.026
192	Methacrylonitrile	CH_2=$C(CH_3)$CN	126-98-7	0.093
193	Methyl isocyanate (Isocyanatomethane)	CH_3NCO	624-83-9	0.103
194	Methylamine	CH_3NH_2	74-89-5	0.109
195	Morpholine	C_4H_9NO	110-91-8	0.023
196	N,N-Dimethylformamide (DMF)	$HCON(CH_3)_2$	68-12-2	0.052
197	N,N-Dimethylhydrazine (1,1-Dimethylhydrazine, Dimazine)	$C_2H_8N_2$	57-14-7	0.040
198	Nitrobenzene	$C_6H_5NO_2$	98-95-3	0.124
199	Nitromethane	CH_3NO_2	75-52-5	0.451
200	Phenyl isocyanate (Carbanil; Phenylcarbimide)	C_7H_5NO	103-71-9	0.001
201	Propanenitrile	C_3H_5N	107-12-0	0.120
202	Propylamine (1-Aminopropane)	$CH_3CH_2CH_2NH_2$	107-10-8	0.040
203	Pyridine	C_5H_5N	110-86-1	0.178
204	Triethylamine	$(C_2H_5)_3N$	121-44-8	0.012
205	Trimethylamine	$(CH_3)_3N$	75-50-3	0.020
	Chloro compounds (see also freons)			
206	1,1,1-Trichloroethane	CCl_3CH_3	71-55-6	0.033
207	1,1-Dichloroethane	$CHCl_2CH_3$	75-34-3	0.152
208	1,1-Dichloroethene (Vinylidene chloride)	CCl_2=CH_2	75-35-4	0.058
209	1,2-Dichloroethane (Freon 150)	CH_2ClCH_2Cl	107-06-2	0.063
210	1,2-Dichloropropane (Propylene dichloride)	$CH_2ClCHCl(CH_3)$	78-87-5	0.108

211	3-Chloro-Propanoyl chloride (3-Chloropropionic acid chloride; 3-Chloropropionyl chloride)	$C_3H_4Cl_2O$	625-36-5	0.032
212	Acetyl chloride (Acetic chloride)	CH_3COCl	75-36-5	0.021
213	Allylchloride (3-chloro-1-propene)	C_3H_5Cl	107-05-1	0.140
214	Benzyl chloride (*α*-Chlorotoluene)	$C_6H_5CH_2Cl$	100-44-7	0.056
215	Butyl chloroformate (Butyl chlorocarbonate)	$C_5H_9ClO_2$	592-34-7	0.003
216	Carbon tetrachloride (Freon 10)	CCl_4	56-23-5	1.319
217	Carbonochloridic acid, ethyl ester (Cathyl chloride; Ethyl chloroformate)	$C_3H_5ClO_2$	541-41-3	0.004
218	Chloracetyl chloride	$C_2H_2Cl_2O$	79-04-9	0.070
219	Chlorobenzene (Phenyl chloride)	C_6H_5Cl	108-90-7	0.079
220	Chloroethene (Vinyl chloride)	$CHCl=CH_2$	75-01-4	0.156
221	Chloroform (Trichloromethane; Freon 20)	$CHCl_3$	67-66-3	0.021
222	Chloromethyl chloroformate	$C_2H_2Cl_2O_2$	22128-62-7	0.002
223	*cis*-1,2-Dichloroethene	CHCl=CHCl	156-59-2	0.071
224	Dichloromethane (Methylene chloride; Freon 30)	CH_2Cl_2	75-09-2	0.049
225	Dimethylcarbamyl chloride (Dimethyl carbamic chloride)	C_3H_6ClNO	79-44-7	0.009
226	Diphosgene	$C_2Cl_4O_2$	503-38-8	0.004
227	Ethyl chloride	C_2H_5Cl	75-00-3	0.103
228	Methyl chloride (Freon 40)	CH_3Cl	74-87-3	0.183
229	Methyl chloroacetate	$C_3H_5ClO_2$	96-34-4	0.014
230	Methyl chloroformate (Methyl chlorocarbonate)	$C_2H_3ClO_2$	79-22-1	0.003
231	n-Propylchloroformate (Propyl chlorocarbonate)	$C_4H_7ClO_2$	109-61-5	0.003
232	Phosgene	$COCl_2$	75-44-5	0.009
233	Tetrachloroethylene	$CCl_2=CCl_2$	127-18-4	0.055
234	*trans*-1,2-Dichloroethene	CHCl=CHCl	156-60-5	0.067
235	Trichloroethylene (Trichlorethene)	$CHCl=CCl_2$	79-01-6	0.036
236	*α*-Epichlorohydrin (Chloromethyloxirane)	C_3H_5ClO	106-89-8	0.073
	Fluoro compounds (see also freons)			
237	(1E)-1,3,3,3-Tetrafluoro-1-propene (HFO-1234ze)	$C_3H_2F_4$	29118-24-9	0.006
238	Desflurane (1,2,2,2-tetrafluoroethyl difluoromethyl ether)	$CF_3CHFOCHF_2$	57041-67-5	0.002
239	Fluorobenzene	C_6H_5F	462-06-6	0.015
240	Perfluoro-1,2-dimethylcyclohexane	$C_6F_{10}(CF_3)_2$	306-98-9	0.002
241	Perfluoro-1,3-dimethylcyclohexane (PFC)	$C_6F_{10}(CF_3)_2$	335-27-3	0.002
242	Sevoflurane [2,2,2-trifluoro-1-(trifluoromethyl) ethyl ether]	$CF_3CH(CF_3)OCH_2F$	28523-86-6	0.003
	Freons			
243	Freon 11 (Trichloromonofluoromethane)	CCl_3F	75-69-4	0.025
244	Freon 113 (1,1,2-Trichloro-1,2,2-trifluoroethane)	CCl_2FCClF_2	76-13-1	0.009
245	Freon 114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	$CHClF_2CClF_2$	76-14-2	0.006
246	Freon 114 B2 (1,2-dibromo-1,1,2,2-tetrafluoroethane)	C2Br2F4	124-73-2	0.005

247	Freon 115 (Chloropentafluoroethane)	$CClF_2CF_3$	76-15-3	0.002
248	Freon 116 (Hexafluoroethane)	C_2F_6	76-16-4	0.001
249	Freon 12 (Dichlorodifluoromethane)	CCl_2F_2	75-71-8	0.012
250	Freon 123 (1,1-Dichloro 2,2,2-trifluoroethane)	$CHCl_2CF_3$	306-83-2	0.007
251	Freon 124 (1-Chloro-1,2,2,2-tetrafluoroethane)	$CHClFCF_3$	2837-89-0	0.006
252	Freon 125 (Pentafluoroethane)	CHF_2CF_3	354-33-6	0.004
253	Freon 133a (1-Chloro-2,2,2-trifluoroethane)	CH_2ClCF_3	75-88-7	0.005
254	Freon 134a (1,1,1,2-Tetrafluoroethane)	CF_3CH_2F	811-97-2	0.005
255	Freon 13B1 (Bromotrifluoromethane; Halon 1301)	$CBrF_3$	75-63-8	0.002
256	Freon 14 (Carbon tetrafluoride)	CF_4	75-73-0	0.000
257	Freon 141b (1,1-Dichloro-1-fluoroethane)	CCl_2FCH_3	1717-00-6	0.026
258	Freon 142b (1-Chloro-1,1-difluoroethane)	$CClF_2CH_3$	75-68-3	0.008
259	Freon 143a (1,1,1-Trifluoroethane)	CF_3CH_3	420-46-2	0.003
260	Freon 152a (Difluoroethane; Ethylidene Difluoride)	$C_2H_4F_2$	75-37-6	0.005
261	Freon 218 (Perfluoropropane)	C_3F_8	76-19-7	0.001
262	Freon 22 (Chlorodifluoromethane)	$CHClF_2$	75-45-6	0.004
263	Freon 23 (Trifluoromethane)	CHF_3	75-46-7	0.001
	Other organic compounds			
264	Bromoform (Tribromomethane)	$CHBr_3$	75-25-2	0.013
265	Chloropicrine (Trichloronitromethane)	CCl_3NO_2	76-06-2	0.112
266	Decamethylcyclopentasiloxane	$C_{10}H_{30}O_5Si_5$	541-02-6	0.001
267	Diisopropyl methanephosphonate (DIMP)	$C_7H_{17}O_3P$	1445-75-6	0.004
268	Dimethyldichlorosilane	$C_2H_6Cl_2Si$	75-78-5	0.023
269	Dimethyldiethoxysilane	$C_6H_{16}O_2Si$	78-62-6	0.022
270	Dimethyldimethoxysilane	$C_4H_{12}O_2Si$	1112-39-6	0.011
271	Dimethylvinylchlorosilane	C_4H_9ClSi	1719-58-0	0.025
272	Ethyl bromide (Bromoethane)	C_2H_5Br	74-96-4	0.044
273	Ethylene dibromide (1,2-Dibromoethane)	BrCH2CH2Br	106-93-4	0.018
274	Ethylmethyldichlorosilane	$C_3H_8Cl_2Si$	4525-44-4	0.047
275	Halothane (2-Bromo-2-chloro-1,1,1-trifluoroethane)	$CF_3CHBrCl$	151-67-7	0.004
276	Hexamethyldisiloxane	$(CH_3)_3SiOSi(CH_3)_3$	107-46-0	0.006
277	Isoflurane (1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether)	$CF_3CHClOCHF_2$	26675-46-7	0.003
278	Methyl bromide (Bromomethane)	CH_3Br	74-83-9	0.199
279	Methyldichlorosilane	CH_3SiHCl_2	75-54-7	0.014
280	Methyltrichlorosilane	CH_3Cl_3Si	75-79-6	0.047
281	Methylvinyldichlorosilane	$C_3H_6Cl_2Si$	124-70-9	0.045
282	Phenylmethyldichlorosilane	$C_7H_8Cl_2Si$	149-74-6	0.024
283	Phenyltrichlorosilane	$C_6H_5Cl_3Si$	98-13-5	0.021
284	p-Nitrofluorobenzene (4-fluoronitrobenzene)	$C_6H_4FNO_2$	350-46-9	0.009

285	Propyltrichlorosilane	$CH_3(CH_2)_2SiCl_3$	141-57-1	0.033
286	Tertiary Butyl Dimethyl Silyl alcohol (tert-Butyldimethylsilanol)	$C_6H_{16}OSi$	18173-64-3	0.018
287	Tetraethylorthosilicate	$C_8H_{20}O_4Si$	78-10-4	0.003
288	Tetramethyl orthosilicate (Tetramethoxysilane)	$Si(OCH_3)_4$	681-84-5	0.003
289	Tetramethyl silane	$C_4H_{12}Si$	75-76-3	0.024
290	Thiophosgene	$CSCl_2$	463-71-8	0.008
291	Trichloromethanesulfenyl chloride	CCl_3SCl	594-42-3	0.973
292	Trimethoxysilane	$C_3H_{10}OSi$	2487-90-3	0.005
293	Trimethylchlorosilane	C_3H_9ClSi	75-77-4	0.016
294	Trimethylsilanol (Hydroxytrimethylsilane)	$(CH_3)_3SiOH$	1066-40-6	0.044
295	Vinyl bromide (1-Bromoethene, Bromoethylene, R1140 B1)	C_2H_3Br	593-60-2	0.078
296	Vinyltrichlorosilane	C_2H3Cl_3Si	75-94-5	0.117
	Inorganic compounds			
297	Ammonia	NH_3	7664-41-7	0.065
298	Arsine	AsH_3	7784-42-1	0.010
299	Diborane	B_2H_6	19287-45-7	0.023
300	Dichlorosilane	SiH_2Cl_2	4109-96-0	0.059
301	Hydrogen bromide	HBr	10035-10-6	1.500
302	Hydrogen chloride	HCl	7647-01-0	0.100
303	Hydrogen fluoride	HF	7664-39-3	0.100
304	Nitrogen dioxide	NO_2	10102-44-0	0.183
305	Nitrogen monoxide (Nitric oxide)	NO	10102-43-9	0.142
306	Phosphine	PH_3	7803-51-2	0.099
307	Silicon tetrafluoride	SiF_4	7783-61-1	0.004
308	Silicon tetrahydride (Silane)	SiH_4	7803-62-5	0.021
309	Silicon tetratchloride	$SiCl_4$	10026-04-7	1.501
310	Sulfur dioxide	SO_2	7446-09-5	0.014
311	Sulfur hexafluoride	SF_6	2551-62-4	0.002
312	Sulfuryl fluoride	SO_2F_2	2699-79-8	0.013
313	Thionyl chloride	$SOCl_2$	7719-09-7	0.011
314	Trichlorosilane	$SiHCl_3$	10025-78-2	0.024

***The lowest possible detection limit (LDL) calculated in Nitrogen for 9.8 m path lenght, 1 min measurement time for single component**
Standard method for determining detection limit of certain component is to compare the known reference spectrum of component in known concentration to the noise level.
At first this means calculating ratio of concentration to absorbance (i.e. how many ppm's is needed for absorbance of 1 AU).
This ratio is then multiplied with noise level at corresponding wavenumber area. The detection limit is 3 times this quantity
LDL = 3 * Noise * ppm/AU
Values are subject to change without notice
LDL's in real sample matrix can differ significantly