

## Partial Library of Occupational Health & Safety Gases

for use with Model DX4040 or DX4015 FTIR multi-component Gas Analyzers

Updated : Feb-1-2016

CAS No.	Gas Name	Chemical Formula	Range (ppm) <sup>1</sup>	Limit (ppm) <sup>2</sup>	OEL's <sup>3</sup>		
					TWA	STEL	Ceiling
75-07-0	<b>Acetaldehyde</b>	C <sub>2</sub> H <sub>4</sub> O	0 - 200	0.067	<b>200</b>		
64-19-7	<b>Acetic Acid</b>	CH <sub>3</sub> COOH	0 - 100	0.020	<b>10</b>		
67-64-1	<b>Acetone</b>	CH <sub>3</sub> COCH <sub>3</sub>	0 - 200	0.035	<b>500</b>	<b>750</b>	
107-02-8	<b>Acrolein</b>	C <sub>3</sub> H <sub>4</sub> O	0 - 200	0.126	<b>0.1</b>		
107-13-1	<b>Acrylonitrile</b>	C <sub>3</sub> H <sub>3</sub> N	0 - 200	0.176	<b>2</b>	<b>10</b>	
7664-41-7	<b>Ammonia</b>	NH <sub>3</sub>	0 - 50	0.065	<b>25</b>	<b>35</b>	
62-53-3	<b>Aniline</b>	C <sub>6</sub> H <sub>7</sub> N	0 - 50	0.032	<b>5</b>		
7784-42-1	<b>Arsine</b>	AsH <sub>3</sub>	0 - 50	0.010	<b>0.05</b>		
71-43-2	<b>Benzene</b>	C <sub>6</sub> H <sub>6</sub>	0 - 50	0.067	<b>1</b>	<b>5</b>	<b>25</b>
10294-34-5	<b>Boron Trichloride</b>	BCl <sub>3</sub>	0 - 50	0.004			<b>1</b>
106-99-0	<b>Butadiene-1,3</b>	C <sub>4</sub> H <sub>6</sub>	0 - 200	0.102	<b>1</b>	<b>5</b>	
124-38-9	<b>Carbon Dioxide</b>	CO <sub>2</sub>	0 - 2000	<10	<b>5000</b>		
75-15-0	<b>Carbon Disulphide</b>	CS <sub>2</sub>	0 - 100	0.086	<b>20</b>	<b>30</b>	
630-08-0	<b>Carbon Monoxide</b>	CO	0 - 200	0.123	<b>50</b>	<b>200</b>	
67-66-3	<b>Chloroform</b>	CHCl <sub>3</sub>	0 - 100	0.021			<b>50</b>
76-06-2	<b>Chloropicrin</b>	CCl <sub>3</sub> NO <sub>2</sub>	0 - 20	0.039	<b>0.1</b>		
1319-77-3	<b>Cresol-m</b>	C <sub>7</sub> H <sub>8</sub> O	0 - 50	0.029	<b>5</b>		
98-82-8	<b>Cumene</b>	C <sub>9</sub> H <sub>12</sub>	0 - 500	0.023	<b>50</b>		
110-82-7	<b>Cyclohexane</b>	C <sub>6</sub> H <sub>12</sub>	0 - 50	0.007	<b>300</b>		
57041-67-5	<b>Desflurane (Suprane)</b>	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub> O	0 - 50	0.002			
75-35-4	<b>Dichloroethane-1,1</b>	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 200	0.152	<b>100</b>		
156-59-2	<b>Dichloroethene-cis</b>	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 200	0.071			
95-50-1	<b>Dichlorobenzene-o</b>	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 100	0.101			<b>50</b>
106-46-7	<b>Dichlorobenzene-p</b>	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 200	0.340	<b>75</b>		
109-89-7	<b>Diethylamine</b>	C <sub>4</sub> H <sub>11</sub> N	0 - 200	0.030	<b>25</b>		
60-29-7	<b>Diethyl ether</b>	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	0 - 50	0.012	<b>400</b>		
127-19-5	<b>Dimethylacetamide</b>	C <sub>4</sub> H <sub>9</sub> NO	0 - 100	0.011	<b>10</b>		
124-40-3	<b>Dimethylamine</b>	C <sub>2</sub> H <sub>7</sub> N	0 - 100	0.047	<b>10</b>		
68-12-2	<b>Dimethylformamide</b>	C <sub>3</sub> H <sub>7</sub> NO	0 - 100	0.052	<b>10</b>		
123-91-1	<b>Dioxane</b>	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0 - 200	0.015	<b>100</b>		
13838-16-9	<b>Enflurane</b>	C <sub>3</sub> H <sub>2</sub> ClF <sub>5</sub> O	0 - 20	0.004			
64-17-5	<b>Ethanol</b>	CH <sub>3</sub> CH <sub>2</sub> OH	0 - 200	0.102	<b>1000</b>		
141-43-5	<b>Ethanolamine</b>	C <sub>2</sub> H <sub>7</sub> NO	0 - 200	0.072	<b>3</b>		
141-78-6	<b>Ethyl acetate</b>	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0 - 50	0.006	<b>400</b>		
100-41-4	<b>Ethyl Benzene</b>	C <sub>8</sub> H <sub>10</sub>	0 - 100	0.041	<b>100</b>		
75-00-3	<b>Ethyl chloride</b>	C <sub>2</sub> H <sub>5</sub> Cl	0 - 200	0.103	<b>1000</b>		

					OEL's <sup>3</sup>		
CAS No.	Gas Name	Chemical Formula	Range (ppm) <sup>1</sup>		TWA	STEL	Ceiling
75-21-8	<b>Ethylene Oxide (EtO)</b>	C <sub>2</sub> H <sub>4</sub> O	0 - 50	0.087	<b>1</b>	<b>5</b>	
50-00-0	<b>Formaldehyde</b>	CH <sub>2</sub> O	0 - 50	0.043	<b>0.75</b>	<b>2</b>	
64-18-6	<b>Formic Acid</b>	HCOOH	0 - 100	0.015	<b>5</b>		
76-13-1	<b>Freon 113 (CFC-113)</b>	C <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub>	0 - 50	0.009	<b>1000</b>	<b>1250</b>	
76-14-2	<b>Freon 114 (CFC-114)</b>	C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub>	0 - 50	0.006			
75-71-8	<b>Freon 12 (CFC-12)</b>	CCl <sub>2</sub> F <sub>2</sub>	0 - 50	0.012	<b>1000</b>		
811-97-2	<b>Freon 134a (HFC-134A)</b>	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	0 - 50	0.005			
1717-00-6	<b>Freon 141b</b>	C <sub>2</sub> H <sub>3</sub> FCl <sub>2</sub>	0 - 50	0.037	<b>1000</b>	<b>1250</b>	
75-45-6	<b>Freon 22 (HCFC-22)</b>	CHClF <sub>2</sub>	0 - 50	0.004			
111-30-8	<b>Glutaraldehyde</b>	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0 - 20	0.021	<b>0.2</b>		
151-67-7	<b>Halothane</b>	C <sub>2</sub> HBrClF <sub>3</sub>	0 - 50	0.004			
302-01-2	<b>Hydrazine</b>	N <sub>2</sub> H <sub>4</sub>	0 - 100	0.000	<b>1</b>		
7647-01-0	<b>Hydrogen Chloride</b>	HCl	0 - 50	0.100			<b>5</b>
74-90-8	<b>Hydrogen Cyanide</b>	HCN	0 - 50	0.177			<b>5</b>
7664-39-3	<b>Hydrogen Fluoride</b>	HF	0 - 50	0.150	<b>3</b>		
7722-84-1	<b>Hydrogen Peroxide</b>	H <sub>2</sub> O <sub>2</sub>	0 - 20	0.000	<b>1</b>		
78-83-1	<b>Iso-Butyl Alcohol</b>	C <sub>4</sub> H <sub>10</sub> O	0 - 100	0.026	<b>100</b>		
67-63-0	<b>Iso-Propyl Alcohol (IPA)</b>	C <sub>3</sub> H <sub>8</sub> O	0 - 100	0.031	<b>400</b>	<b>500</b>	
74-82-8	<b>Methane</b>	CH <sub>4</sub>	0 - 100	0.053			
67-56-1	<b>Methanol</b>	CH <sub>3</sub> OH	0 - 500	0.067	<b>200</b>		
79-20-9	<b>Methyl acetate</b>	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	0 - 100	0.007	<b>200</b>		
74-83-9	<b>Methyl bromide</b>	CH <sub>3</sub> Br	0 - 50	0.199	<b>5</b>		<b>20</b>
109-86-4	<b>Methyl cellosolve</b>	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	0 - 100	0.024	<b>25</b>		
110-49-6	<b>Methyl cellosolve acetate</b>	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	0 - 100	0.006	<b>25</b>		
71-55-6	<b>Methyl chloroform (TCE)</b>	C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> or CH <sub>3</sub> CCl <sub>3</sub>	0 - 100	0.033	<b>350</b>		
78-93-3	<b>Methyl Ethyl Ketone</b>	CH <sub>3</sub> COC <sub>2</sub> H <sub>5</sub>	0 - 200	0.068	<b>200</b>	<b>300</b>	
80-62-6	<b>Methyl Methacrylate</b>	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0 - 50	0.008	<b>100</b>		
75-09-2	<b>Methylene chloride</b>	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 200	0.049	<b>25</b>	<b>125</b>	
74-89-5	<b>Methylamine</b>	CH <sub>5</sub> N	0 - 200	0.109	<b>10</b>		
74-93-1	<b>Methylmercaptan</b>	CH <sub>4</sub> S	0 - 200	0.207			<b>10</b>
10102-44-0	<b>Nitrogen Dioxide</b>	NO <sub>2</sub>	0 - 50	0.183			<b>5</b>
7783-54-2	<b>Nitrogen Trifluoride</b>	NF <sub>3</sub>	0 - 50	0.011	<b>10</b>		
10024-97-2	<b>Nitrous Oxide</b>	N <sub>2</sub> O	0 - 100	0.008	<b>25</b>		
75-44-5	<b>Phosgene</b>	CCl <sub>2</sub> O	0 - 50	0.009	<b>0.1</b>		
7803-51-2	<b>Phosphine</b>	PH <sub>3</sub>	0 - 50	0.099	<b>0.3</b>		

CAS No.	Gas Name	Chemical Formula	Range (ppm) <sup>1</sup>		OEL's <sup>3</sup>		
					TWA	STEL	Ceiling
71-23-8	<b>Propanol</b>	C <sub>3</sub> H <sub>8</sub> O	0 - 100	0.040	<b>200</b>		
75-56-9	<b>Propylene Oxide</b>	C <sub>3</sub> H <sub>6</sub> O	0 - 100	0.059	<b>20</b>		
110-86-1	<b>Pyridine</b>	C <sub>5</sub> H <sub>5</sub> N	0 - 200	0.178	<b>5</b>		
28523-86-6	<b>Sevoflurane</b>	C <sub>4</sub> H <sub>3</sub> F <sub>7</sub> O	0 - 50	0.003			
100-42-5	<b>Styrene</b>	C <sub>8</sub> H <sub>8</sub>	0 - 200	0.078	<b>100</b>		
2699-79-8	<b>Sulfuryl Fluoride</b>	SO <sub>2</sub> F <sub>2</sub>	0 - 50	0.013	<b>5</b>		
05/09/7446	<b>Sulphur Dioxide</b>	SO <sub>2</sub>	0 - 100	0.014	<b>2</b>	<b>5</b>	
2551-62-4	<b>Sulphur Hexafluoride</b>	SF <sub>6</sub>	0 - 50	0.002			
127-18-4	<b>Tetrachloroethylene (Perc)</b>	C <sub>2</sub> Cl <sub>4</sub>	0 - 50	0.016	<b>100</b>		
109-99-9	<b>Tetrahydrofuran</b>	C <sub>4</sub> H <sub>8</sub> O	0 - 100	0.033	<b>200</b>		
				0.000			
108-88-3	<b>Toluene</b>	C <sub>7</sub> H <sub>8</sub> (C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> )	0 - 200	0.065	<b>200</b>		
79-01-6	<b>Trichloroethylene</b>	C <sub>2</sub> HCl <sub>3</sub>	0 - 100	0.039	<b>100</b>		
526-73-8	<b>Trimethylbenzene (1,2,3)</b>	C <sub>9</sub> H <sub>12</sub>	0 - 100	0.052	<b>25</b>		
108-05-4	<b>Vinyl acetate</b>	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	0 - 50	0.003	<b>10</b>	<b>15</b>	
75-01-4	<b>Vinyl chloride</b>	CH <sub>2</sub> CHCl	0 - 200	0.172	<b>1</b>	<b>5</b>	
75-35-4	<b>Vinylidene chloride</b>	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 100	0.058	<b>5</b>	<b>20</b>	
7732-18-5	<b>Water Vapour</b>	H <sub>2</sub> O	0 - 3 %	<100			
106-42-3	<b>Xylene-p</b>	C <sub>8</sub> H <sub>10</sub>	0 - 100	0.052	<b>100</b>	<b>150</b>	

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Notes :

1. Measurement range - Typical recommended range however can be modified for site specific conditions
  2. Theoretical Lower Limit Detection based on 60s measurement time, one component in Nitrogen, detection limit defined as 3x stdev(noise)
  3. OEL's : Occupational Exposure Limits - Data per OSHA or NIOSH or ACGIH
  4. Detection limits in general are application specific and this list should only be used as a guide. Please note this document is supplied as a guide as detection limits are a function of the application (sample matrix). We strongly recommend that you contact Gasmeter or your local representative to discuss your specific application.
  5. Subject to change without notification
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