

**MX6 10.6eV PID Response Factor Table**

The table below lists response factors for various gases detected by the MX6 10.6eV PID when calibrated to isobutylene.

NOTE: PID sensor response factor accuracy is +/-30%

Updated on 9/21/2018

Chemical name	Synonym	CAS #	Formula	IP (eV)	TWA (ppm)	RF
Acetaldehyde		75-07-0	C2H4O	10.23		<b>10.80</b>
Acetic acid	Ethanoic acid	64-19-7	C2H4O2	10.66	10	<b>11.00</b>
Acetic Anhydride	Ethanoic acid Anhydride	108-24-7	C2H4O	10.14	5	<b>6.10</b>
Acetone	2 - Propanone	67-64-1	C3H6O	9.71	500	<b>1.20</b>
Acetophenone		98-86-2	C8H8O			<b>0.59</b>
Allyl Alcohol		107-18-6	C3H6O	9.67	2	<b>2.50</b>
Ammonia		7664-41-7	NH3	10.16	25	<b>9.40</b>
Amyl Acetate	mix of n-Pentyl acetate & 2-Methylbutyl acetate	628-63-7	C7H14O2	<9.9	100	<b>3.50</b>
Arsine	Arsenic trihydride	7784-42-1	AsH3	9.89	0.05	<b>2.60</b>
Benzene		71-43-2	C6H6	9.25	0.5	<b>0.53</b>
Bromine		7726-95-6	Br2	10.51	0.1	<b>1.30</b>
Butanediol, 1,4-	BDO	110-63-4	C4H10O2			<b>37.20</b>
Butadiene	1,3-Butadiene, Vinyl ethylene	106-99-0	C4H6		2	<b>0.69</b>
Butanol, 1-	Butyl alcohol, n-Butanol	71-36-3	C4H10O	9.99		<b>3.40</b>
Butanol, t-	tert-Butanol, t-Buty alcohol	75-65-0	C4H10O	9.9	100	<b>3.40</b>
Butoxyethanol, 2-	Butyl Cellosolve, Ethylene glycol monobutyl ether	111-76-2	C6H14O2	<10	25	<b>1.30</b>
Butyl acetate, n-		123-86-4	C6H12O2	10	150	<b>2.40</b>
Butylamine, t-	2-butylamine	513-49-5	C4H11N			<b>0.71</b>
Butyl mercaptan	1-Butanethiol	109-79-5	C4H10S	9.14	0.5	<b>0.55</b>
Butyrolactone			C4H6O2			<b>3.01</b>
Carbon disulfide		75-15-0	CS2	10.07	10	<b>1.20</b>
Chlorobenzene	Monochlorobenzene	108-90-7	C6H5Cl	9.06	10	<b>0.40</b>
Cumene	Isopropylbenzene	98-82-8	C9H12	8.73		<b>0.54</b>
Cyclohexane		110-82-7	C6H12	9.86	50	<b>1.50</b>
Cyclohexanone		108-94-1	C6H10O	9.14	300	<b>0.82</b>
Cyclohexene		110-83-8	C6H10	8.95	10	<b>0.80</b>
Decane		124-18-5	C10H22	9.65	50	<b>1.60</b>
Diacetone alcohol	4-Methyl-4-hydroxy-2-pentanone	123-42-2	C6H12O2	9.65		<b>0.55</b>
Dibromoethane, 1,2-	EDB, Ethylene dibromide, Ethylene bromide	106-93-4	C2H4Br2	10.37		<b>11.70</b>

Dichlorobenzene, o-	1,2-Dichlorobenzene	95-50-1	C6H4Cl2	9.08	25	<b>0.50</b>
Dichloroethene, t-1,2-	t-1,2-DCE, tris-Dichloroethylene	156-60-5	C2H2Cl2	9.65	200	<b>0.45</b>
Diesel fuel #1		68334-30-5				<b>0.90</b>
Diethylamine		109-89-7	C4H11N	8.01	5	<b>1.00</b>
Dimethoxymethane	Methylal	109-87-5	C3H8O2			<b>11.30</b>
Dimethylacetamide, N,N-	DMA	127-19-5	C4H9NO	8.81	10	<b>0.73</b>
Dimethylformamide, N,N-	DMF	68-12-2	C3H7NO	9.13	10	<b>0.80</b>
Dimethyl sulfoxide	DMSO, Methyl sulfoxide	67-68-5	C2H6OS	9.1		<b>0.30</b>
Dioxane, 1,4-		123-91-1	C4H8O2	9.19	25	<b>1.40</b>
Epichlorohydrin	ECH Chloromethyloxirane, 1-chloro 2,3-epoxypropane	106-89-8	C2H5ClO	10.2	0.5	<b>7.60</b>
Ethanol	Ethyl alcohol	64-17-5	C2H6O	10.47	1000	<b>10.00</b>
Ethene	Ethylene	74-85-1	C2H4	10.51		<b>10.10</b>
Ethyl acetate		141-78-6	C4H8O2	10.01	400	<b>4.20</b>
Ethylacetoacetate	EAA	141-97-9	C6H10O3			<b>0.90</b>
Ethylbenzene		100-41-4	C8H10	8.77	100	<b>0.51</b>
Ethylene glycol	1,2-Ethanediol	107-21-1	C2H6O2	10.16	100	<b>15.70</b>
Ethylene oxide	Oxirane, Epocycethane	75-21-8	C2H4O	10.57	1	<b>19.50</b>
Ethyl ether	Diethyl ether	60-29-7	C4H10O	9.51	400	<b>1.20</b>
Heptane, n-		142-82-5	C7H16	9.92	400	<b>2.50</b>
Hexane, n-		110-54-3	C6H14	10.13	50	<b>4.50</b>
Hydrazine		302-01-2	H4N2	8.1	0.01	<b>2.60</b>
Hydrogen sulfide		7783-06-4	H2S	10.45	10	<b>3.20</b>
Iodine		7553-56-2	I2	9.4		<b>0.14</b>
Isoamyl acetate	Isopentyl acetate	123-92-2	C7H14O2	<10	100	<b>1.80</b>
Isobutanol	2-Methyl-1propanol	78-83-1	C4H10O	10.02	50	<b>4.70</b>
Isobutene	Isobutylene	115-11-7	C4H8	9.24		<b>1.00</b>
Isooctane	2,2,4-Trimethylpentane	540-84-1	C8H18	9.86		<b>1.30</b>
Isophorone		78-59-1	C9H14O	9.07		<b>0.74</b>
Isopropanol	Isopropyl alcohol, 2-propanol	67-63-0	C3H8O	10.12	400	<b>5.60</b>
Isopropylamine	2-Aminopropane	75-31-0	C3H9N			<b>0.90</b>
Isopropyl ether	Diisopropyl ether	108-20-3	C6H14O	9.2	250	<b>0.80</b>
Jet fuel JP-5 & JP-8	Jet 5, Kerosene type aviation fuel	8008-20-6	m.w. 167		15	<b>0.48</b>
Jet A	Jet A-1, Kerosene type	8008-20-6	m.w. 165		15	<b>0.40</b>
Jet A1						<b>0.40</b>
Mesityloxide	Isopropylidene acetone	141-79-7	C6H10O			<b>0.47</b>
Methoxyethanol, 2-		109-86-4	C3H8O2	10.1	5	<b>2.50</b>

<b>Methoxyethoxyethanol, 2-</b>	Methyl Carbitol	111-77-3	C7H16O	<10		<b>2.42</b>
<b>1- Methoxy-2-propanol</b>	PGME (propylene glycol monomethyl ether)	107-98-2	C4H10O2			<b>1.40</b>
<b>Methyl acetate</b>		79-20-9	C3H6O2	10.27	200	<b>7.00</b>
<b>Methyl Acetoacetate</b>	MAA	105-45-3	C5H8O3			<b>1.10</b>
<b>Methyl acrylate</b>	Methyl 2-propenoate, acrylic acid methyl ester	96-33-3	C4H6O2	9.9	2	<b>3.40</b>
<b>Methylamine</b>	Aminomethane	74-89-5	CH5N	8.97	5	<b>1.20</b>
<b>Methylbenzoate</b>		93-58-3	C8H8O2			<b>0.93</b>
<b>Methyl benzyl alcohol</b>	STYRENE ALCOHOL	13323-81-4	C8H10O			<b>0.80</b>
<b>Methyl t-butyl ether</b>	MTBE, tert-Butyl methyl ether	1634-04-4	C5H12O	9.24	40	<b>0.86</b>
<b>MEK (Methyl ethyl ketone)</b>	2-Butanone	78-93-3	C4H8O	9.51	200	<b>0.90</b>
<b>Methyl isobutyl ketone</b>	MIBK, 4-Methyl-2-pentanone	108-10-1	C6H12O	9.3	50	<b>1.10</b>
<b>Methyl mercaptan</b>	Methanethiol	74-93-1	CH4S	9.44		<b>0.60</b>
<b>Methyl methacrylate</b>		80-62-6	C5H8O2	9.7		<b>1.50</b>
<b>Meth-2-pyrrolidone, N-</b>	NMP, N-Methylpyrrolidone,1-Methyl-2-pyrrolid(in)one	872-50-4	C5H9NO	9.17	ne	<b>1.02</b>
<b>Naphthalene</b>	Mothballs	91-20-3	C10H8	8.13	10	<b>0.37</b>
<b>Nitrobenzene</b>		98-95-3	C6H5NO2	9.81	1	<b>1.90</b>
<b>Octane, n-</b>		111-65-9	C8H18	9.82	300	<b>2.20</b>
<b>Pentane</b>		109-66-0	C5H12	10.35	600	<b>9.70</b>
<b>Methyl propyl ketone</b>	MPK, 2-Pentanone	107-87-9	C5H12O	9.38		<b>0.78</b>
<b>Phenol</b>	Hydroxybenzene	108-95-2	C6H6O	8.51	5	<b>1.00</b>
<b>phenylethylalcohol</b>	Phenethyl alcohol	60-12-8	C8H10O			<b>9.04</b>
<b>Phosphine</b>		7803-51-2	PH3	9.87	0.3	<b>2.80</b>
<b>Picoline, 2-</b>	2-Methylpyridine	109-06-8	C6H7N			<b>0.57</b>
<b>Picoline, 3-</b>	3-Methylpyridine	108-99-6	C6H7N	9.04		<b>0.90</b>
<b>Propanol, n-</b>	Propyl alcohol	71-23-8	C3H8O	10.22	200	<b>5.70</b>
<b>Propene</b>	Propylene	115-07-1	C3H6	9.73		<b>1.30</b>
<b>Propylene oxide</b>	Methyloxirane	75-56-9	C3H6O	10.22	20	<b>6.50</b>
<b>Pyridine</b>		110-86-1	C5H5N	9.25	5	<b>0.79</b>
<b>Quinoline</b>		91-22-5	C9H7N			<b>0.72</b>
<b>Styrene</b>		100-42-5	C8H8	8.43	20	<b>0.40</b>
<b>Tetrachloroethylene</b>		127-18-4	C2Cl4			<b>0.56</b>
<b>Tetrahydrofuran</b>	THF	109-99-9	C4H8O	9.41	200	<b>1.60</b>
<b>Thiophene</b>	Thiofuran	110-02-1	C4H4S			<b>0.47</b>
<b>Toluene</b>	Methylbenzene	108-88-3	C7H8	8.82	50	<b>0.53</b>
<b>Trichloroethylene</b>	TCE, Trichoroethylene	79-01-6	C2HCl3	9.47	50	<b>0.50</b>
<b>Trimethylbenzene, 1,2,3</b>	Hemellitol	526-73-8	C9H12			<b>0.49</b>

<b>Trimethylbenzene, 1,2,4</b>	Pseudocumene	95-63-6	C9H12		25	<b>0.43</b>
<b>Trimethylbenzene, 1,3,5</b>	Mesitylene	108-67-8	C9H12			<b>0.34</b>
<b>Turpentine</b>	Pinenes (85%) + other diisoprenes	8006-64-2	C10H16	8	100	<b>0.45</b>
<b>Vinyl acetate</b>		108-05-4	C4H6O2	9.19	10	<b>1.30</b>
<b>Vinyl cyclohexone</b>	VCH	695-12-5				<b>0.54</b>
<b>Vinylidene chloride</b>	VDC, 1,1-Dichloroethylene, 1,1-DCE	75-35-4	C2H2Cl2			<b>0.80</b>
<b>Xylene, m-</b>	1,3- Dimethylbenzene	108-38-3	C8H10	8.56	100	<b>0.53</b>
<b>Xylene, o-</b>	1,2- Dimethylbenzene	95-47-6	C8H10	8.56	100	<b>0.54</b>
<b>Xylene, p-</b>	1,4- Dimethylbenzene	106-42-3	C8H10	8.44	100	<b>0.50</b>

**Abbreviations:****CAS#:** Chemical Abstract Service Number**IP:** Ionization Potential**TWA:** Threshold limit of Time Weighted Average by the American Conference of Governmental Industrial Hygienists (ACGIH)**RF:** Response Factor