

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

	Chemical name	Synonym	CAS #	Formula	IP, ev	TWA	RF
1	Acetaldehyde		75-07-0	C2H4O	10.23	C25	5.14
2	Acetic acid	Ethanoic acid	64-19-7	C2H4O2	10.66	10	23.05
3	Acetic Anhydride	Ethanoic acid Anhydride	108-24-7	C2H4O	10.14	5	6.10
4	Acetone	2 - Propanone	67-64-1	C3H6O	9.71	500	1.24
5	Acetophenone						0.59
6	Allyl Alcohol		107-18-6	C3H6O	9.67	2	2.92
7	Ammonia		7664-41-7	NH3	10.16	25	12.80
8	Amyl Acetate	mix of n-Pentyl acetate & 2-Methylbutyl acetate	628-63-7	C7H14O2	<9.9	100	1.92
9	Arsine	Arsenic trihydride	7784-42-1	AsH3	9.89	0.05	2.38
10	Benzene		71-43-2	C6H6	9.25	0.5	0.55
11	Bromine		7726-95-6	Br2	10.51	0.1	1.30
12	Bromomethane						2.72
13	1,4-butanediol						37.20
14	Butadiene	1,3-Butadiene, Vinyl ethylene	106-99-0	C4H6		2	0.73
16	Butanol, 1-	Butyl alcohol, n-Butanol	71-36-3	C4H10O	9.99	C50	4.09
17	Butanol, t-	tert-Butanol, t-Buty alcohol	75-65-0	C4H10O	9.9	100	3.24
18	2-Butanone						0.90
19	Butoxyethanol, 2-	Butyl Cellosolve, Ethylene glycol monobutyl ether	111-76-2	C6H14O2	<10	25	1.44
20	Butyl acetate, n-		123-86-4	C6H12O2	10	150	2.38
21	Butylamine, t-	tert-butylamine					1.01
22	Butyl mercaptan	1-Butanethiol	109-79-5	C4H10S	9.14	0.5	0.61
23	Butyrolactone	gama-butyrolctone					3.01
24	Carbon disulfide		75-15-0	CS2	10.07	10	1.25
25	Chlorobenzene	Monochlorobenzene	108-90-7	C6H5Cl	9.06	10	0.49
26	Cumene	Isopropylbenzene	98-82-8	C9H12	8.73	ne	0.54
27	Cyclohexane		110-82-7	C6H12	9.86	50	1.44
28	Cyclohexanone		108-94-1	C6H10O	9.14	300	0.82
29	Cyclohexene		110-83-8	C6H10	8.95	10	0.80
30	Decane		124-18-5	C10H22	9.65	50	1.24
31	Diacetone alcohol	4-Methyl-4-hydroxy-2-pentanone	123-42-2	C6H12O2	9.65		0.73
32	Dibromoethane, 1,2-	EDB, Ethylene dibromide, Ethylene bromide	106-93-4	C2H4Br2	10.37	ne	2.03

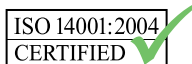
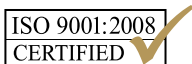
# MX6 iBrid PID RESPONSE FACTORS (continued)

	Chemical name	Synonym	CAS #	Formula	IP, ev	TWA	RF
33	Dichlorobenzene, o-	1,2-Dichlorobenzene	95-50-1	C6H4Cl2	9.08	25	0.50
34	Dichloroethene, t-1,2-	t-1,2-DCE, tris-Dichloroethylene	156-60-5	C2H2Cl2	9.65	200	0.45
35	Diesel Fuel		68334-30-5	m.w. 226		11	0.80
36	Diethylamine		109-89-7	C4H11N	8.01	5	0.89
37	Dimethoxymethane						1.51
38	Dimethylacetamide, N,N-	DMA	127-19-5	C4H9NO	8.81	10	0.66
39	Dimethylformamide, N,N-	DMF	68-12-2	C3H7NO	9.13	10	0.81
40	Dimethyl sulfoxide	DMSO, Methyl sulfoxide	67-68-5	C2H6OS	9.1	ne	1.40
41	Dioxane, 1,4-		123-91-1	C4H8O2	9.19	25	1.48
42	Epichlorohydrin	ECH Chloromethyloxirane, 1-chloro2,3-epoxypropane	106-89-8	C2H5ClO	10.2	0.5	7.70
43	Ethanol	Ethyl alcohol	64-17-5	C2H6O	10.47	1000	10.70
44	Ethene	Ethylene	74-85-1	C2H4	10.51	ne	10.20
45	Ethyl acetate		141-78-6	C4H8O2	10.01	400	4.10
46	Ethylacetoacetate			C6H10O3			1.14
47	Ethylbenzene		100-41-4	C8H10	8.77	100	0.53
48	Ethylene glycol	1,2-Ethanediol	107-21-1	C2H6O2	10.16	100	15.30
49	Ethylene oxide	Oxirane, Epocycethane	75-21-8	C2H4O	10.57	1	12.20
50	Ethyl ether	Deithyl ether	60-29-7	C4H10O	9.51	400	1.15
51	Heptane, n-		142-82-5	C7H16	9.92	400	2.35
52	Hexane, n-		110-54-3	C6H14	10.13	50	4.06
53	Hydrazine		302-01-2	H4N2	8.1	0.01	2.60
54	Hydrogen sulfide		6/4/7783	H2S	10.45	10	3.30
55	Iodine		7553-56-2	I2	9.4	C0.1	0.14
56	Isoamyl acetate	Isopentyl acetate	123-92-2	C7H14O2	<10	100	1.79
57	Isobutanol	2-Methyl-1propanol	78-83-1	C4H10O	10.02	50	4.99
58	Isobutene	Isobutylene, Methyl butene	115-11-7	C4H8	9.24	ne	1.00
59	Isooctane	2,2,4-Trimethylpentane	540-84-1	C8H18	9.86	ne	1.21
60	Isophorone		78-59-1	C9H14O	9.07	C5	0.74
61	Isopropanol	Isopropyl alcohol, 2-propanol	67-63-0	C3H8O	10.12	400	5.93
62	Isopropylamine						1.28
63	Isopropyl ether	Diisopropyl ether	108-20-3	C6H14O	9.2	250	0.84
64	Jet fuel JP-5 &JP-8	Jet 5, Kerosene type aviation fuel	8008-20-6	m.w. 167		15	1.06
65	Jet A	Jet A-1, Kerosene type	8008-20-6	m.w. 165		15	1.06
66	Jet A1 fuel						1.06
67	Mesityloxiide						0.54
68	Methoxyethanol, 2-	Methyl cellosolve, Ethylene glycol monomethyl ether	109-86-4	C3H8O2	10.1	5	2.22

	<b>Chemical name</b>	<b>Synonym</b>	<b>CAS #</b>	<b>Formula</b>	<b>IP, ev</b>	<b>TWA</b>	<b>RF</b>
<b>69</b>	Methoxyethoxyethanol, 2-	2-(2-methoxyethoxy) ethanol Diethylene glycol monomethyl ether	111-77-3	C7H16O	<10	ne	<b>2.42</b>
<b>70</b>	1- Methoxy-2-propanol						<b>1.85</b>
<b>71</b>	Methyl acetate		79-20-9	C3H6O2	10.27	200	<b>6.44</b>
<b>72</b>	Methylacetoacetate						<b>1.30</b>
<b>73</b>	Methyl acrylate	Methyl 2-propenoate, acrylic acid methyl ester	96-33-3	C4H6O2	9.9	2	<b>3.40</b>
<b>74</b>	Methylamine	Aminomethane	74-89-5	CH5N	8.97	5	<b>1.64</b>
<b>75</b>	Methylbenzoate						<b>0.93</b>
<b>76</b>	Methyl benzyl alcohol						<b>7.12</b>
<b>77</b>	Methyl bromide	Bromomethane	74-83-9	CH3Br	10.54	1	<b>1.98</b>
<b>78</b>	Methyl t-butyl ether	MTBE, tert-Butyl methyl ether	1634-04-4	C5H12O	9.24	40	<b>0.89</b>
<b>79</b>	Methyl ethyl ketone	MEK, 2-Butanone	78-93-3	C4H8O	9.51	200	<b>0.97</b>
<b>80</b>	Methyl isobutyl ketone	MIBK, 4-Methyl-2-pentanone	108-10-1	C6H12O	9.3	50	<b>1.14</b>
<b>81</b>	Methyl mercaptan	Methanethiol	74-93-1	CH4S	9.44	9.44	<b>0.58</b>
<b>82</b>	Methyl methacrylate		80-62-6	C5H8O2	9.7	9.7	<b>1.57</b>
<b>83</b>	Methyl propyl ketone	MPK, 2-Pentanone	107-87-9	C5H12O	9.38	9.38	<b>0.87</b>
<b>84</b>	Meth-2-pyrrolidone, N-	NMP, N-Methylpyrrolidone, 1-Methyl-2-pyrrolidinone, 1-Methyl 2-pyrrolidone	872-50-4	C5H9NO	9.17	ne	<b>1.02</b>
<b>85</b>	Naphthalene	Mothballs	91-20-3	C10H8	8.13	10	<b>0.40</b>
<b>86</b>	Nitrobenzene		98-95-3	C6H5NO2	9.81	1	<b>1.90</b>
<b>87</b>	Octane, n-		111-65-9	C8H18	9.82	300	<b>2.10</b>
<b>88</b>	Pentane		109-66-0	C5H12	10.35	600	<b>8.40</b>
<b>89</b>	2-Pentanone						<b>0.87</b>
<b>90</b>	Phenol	Hydroxybenzene	108-95-2	C6H6O	8.51	5	<b>1.10</b>
<b>91</b>	phenylethylalcohol	Phenol Ethyl alcohol					<b>9.04</b>
<b>92</b>	Phosphine		7803-51-2	PH3	9.87	0.3	<b>3.02</b>
<b>93</b>	Picoline, 2-	2-Methylpyridine					<b>0.72</b>
<b>94</b>	Picoline, 3-	3-Methylpyridine	108-99-6	C6H7N	9.04	ne	<b>0.92</b>
<b>95</b>	Propanol, n-	Propyl alcohol	71-23-8	C3H8O	10.22	200	<b>4.91</b>
<b>96</b>	Propanol, 2-	Propyl alcohol		C3H8O			<b>5.53</b>
<b>97</b>	Propene	Propylene	115-07-1	C3H6	9.73	ne	<b>1.41</b>
<b>98</b>	Propylene oxide	Methyloxirane	75-56-9	C3H6O	10.22	20	<b>6.30</b>
<b>99</b>	Pyridine		110-86-1	C5H5N	9.25	5	<b>0.78</b>
<b>100</b>	Quinoline						<b>0.97</b>
<b>101</b>	Styrene		100-42-5	C8H8	8.43	20	<b>0.47</b>
<b>102</b>	Tetracholoethylene			C2Cl4			<b>0.60</b>
<b>103</b>	Tetrahydrofuran	THF	109-99-9	C4H8O	9.41	200	<b>1.53</b>
<b>104</b>	Thiophene						<b>0.41</b>
<b>105</b>	Toluene	Methylbenzene	108-88-3	C7H8	8.82	50	<b>0.53</b>

	Chemical name	Synonym	CAS #	Formula	IP, ev	TWA	RF
106	Trichloroethylene	TCE, Trichoroethylene	79-01-6	C2HCl3	9.47	50	0.51
107	Trimethylbenzene, 1,2,3						0.49
108	Trimethylbenzene, 1,2,4		108-67-8			25	0.43
109	Trimethylbenzene, 1,3,5	1,3,5-(CH3)3C5H6					0.34
110	Turpentine	Pinenes (85%) + other diisoprenes	8006-64-2	C10H16	8	100	0.50
111	Vinyl acetate		108-05-4	C4H6O2	9.19	10	1.17
112	Vinyl chloride	Chloroethylene, VCM	75-01-4	C2H3Cl	9.99	5	1.90
113	Vinyl cyclohexone	VCH					1.40
114	Xylene, m-	1,3- Dimethylbenzene	108-38-3	C8H10	8.56	100	0.45
115	Xylene, o-	1,2- Dimethylbenzene	95-47-6	C8H10	8.56	100	0.54
116	Xylene, p-	1,4- Dimethylbenzene	106-42-3	C8H10	8.44	100	0.47

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



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