

Compounds & Correction Factors For Ion Science PIDs PhoCheck, FirstCheck and TVOC

How To Use This Chart:

1. Look for the compound you wish to measure.
2. If the Ionisation Potential is less than 10.6 it can be measured with a standard 10.6 eV lamp.
3. If the IP is less than 11.7 it can be measured with an 11.7 eV lamp
4. Check the Correction Factor in column 5 or 6 to use with your PID. Check the latest EH40 for STEL & TWA workplace exposure values.



Pioneer Road Faringdon Oxfordshire SN7 7BU
Tel: 01367 246960 Fax: 01367 243200
info@shawcity.co.uk www.shawcity.co.uk

Key: ZR=No Response NA=No Data Available

Compound	Formula	CAS	Ionisation Potential	Correction Factors		EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Acetaldehyde	C2H4O	75-07-0	10.23	3.3	4.9	20	50
Acetic Acid	C2H4O2	64-17-7	10.66	2.6	36.2	10	15
Acetic Anhydride	C4H6O3	108-24-7	10.14	2	4.0	0.5	2
Acetone	C3H6O	67-64-1	9.69	1.4	0.7	500	1500
Acetonitrile	CH3CN	75-05-8	12.2	100	ZR	40	60
Acetylene	C2H2	74-86-2	11.4	2	ZR		
Acrolein	C3H4O	107-02-8	10.22	3	4.0	0.1	0.3
Acrylic Acid	C3H4O2	79-10-7	10.6	2	2.7	10	20
Acrylonitrile	C3H3N	107-13-1	10.91	1.2	ZR	2	
Allyl alcohol	C3H6O	107-18-6	9.63	1.7	2.1	2	4
Allyl chloride	C3H5Cl	107-05-1	10.05	0.7	4.5		
Ammonia	NH3	7664-41-7	10.18	5.7	8.5	25	35
Amyl acetate, n-	C7H14O2	628-63-7	9.9	1	1.8		
Amyl alcohol	C5H12O	71-41-0	10.00	4	3.2		
Aniline	C6H7N	62-53-3	7.70	0.47	0.5	1	
Anisole	C7H8O	100-66-3	8.21	1	0.5		
Argon	Ar	7440-37-1	9.89	ZR	ZR		
Arsine	AsH3	7784-42-1	9.89	3	2.5	0.05	
Asphalt, petroleum fumes		8052-42-4	9	NA	1.0		
Benzaldehyde	C7H6O	100-52-7	9.49	1	0.9		
Benzene	C6H6	71-43-2	9.24	0.6	0.5	1	
Benzenethiol	C6H5SH	108-98-5	8.32	NA	0.7	0.5	
Benzonitrile	C7H5N	100-47-0	9.62	2	0.7		
Benzyl alcohol	C7H8O	100-51-6	8.26	0.9	1.3		
Benzyl chloride	C7H7Cl	100-44-7	9.14	0.5	0.6	0.5	1.5
Benzyl formate	C8H8O2	104-57-4	9.32	0.66	0.8		
Biphenyl	C12H10	92-52-4	8.23	NA	0.4	0.2	0.6
Bis(2,3-epoxypropyl) ether	C6H10O3	2238-07-5	9.6	NA	3.0	0.1	
Boron trifluoride	BF3	7637 07 2	15.50	ZR	ZR		
Bromine	Br2	7726-95-6	10.55	0.74	20.0	0.1	0.3
Bromine pentafluoride	BrF5	7789-30-2	13.17	ZR	ZR	0.1	0.3
Bromobenzene	C6H5Br	108-86-1	8.98	0.5	0.7		
Bromochloromethane	CH2ClBr	74-97-5	10.77	NA	ZR	200	250
Bromoethane	C2H5Br	74-96-4	10.29	NA	5.0	200	250
Bromoethyl methyl ether, 2-	C3H7OBr	6482-24-2	10.00	2	2.5		
Bromoform	CHBr3	75-25-2	10.48	0.5	2.8	0.5	
Bromopropane, 1-	C3H7Br	106-94-5	10.18	0.6	1.3		
Bromotrifluoromethane	CF3Br	75-63-8	11.78	NA	ZR	1000	1200
Butadiene	C4H6	106-99-0	9.07	1.1	0.8		
Butadiene diepoxide, 1,3-	C4H6O2	1464-53-5	10.00	1.2	4.0		
Butane, n-	C4H10	106-97-8	10.63	1	46.0	600	750
Butanol, 1-	C4H10O	71-36-3	10.04	1.4	4.0	50	30
Buten-3-ol, 1-	C4H8O	598-32-3	9.2	NA	1.2		
Butene, 1-	C4H8	106-98-9	9.58	NA	1.3		
Butoxyethanol, 2-	C6H14O2	111-76-2	8.6	0.62	1.1	25	50
Butyl acetate, n-	C6H12O2	123-86-4	10	NA	2.4	150	200
Butyl acrylate, n-	C7H12O2	141-32-2	8.6	0.6	1.5	1	5
Butyl lactate	C7H14O3	138-22-7	9.8	NA	2.5	5	
Butyl mercaptan	C4H10S	109-79-5	9.15	2	0.5		
Butylamine, 2-	C4H11N	513-49-5	8.6	NA	0.9		

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Butylamine, n-	C4H11N	109-73-9	8.71	0.7	1.0		5
Camphene	C10H16	565-00-4	8.1	NA	0.5		
Carbon dioxide	CO2	124-38-9	13.77	ZR	ZR	5000	15000
Carbon disulfide	CS2	75-15-0	10.08	0.3	1.4	10	
Carbon monoxide	CO	630-08-0	14.01	ZR	ZR	30	200
Carbon tetrabromide	CBr4	558-13-4	10.31	NA	3.0	0.1	0.3
Carbon tetrachloride	CCl4	56-23-5	11.47	1.7	ZR	2	
Carbonyl sulfide	COS	463-58-1	11.18	11	ZR		
Carvone, R-	C10H14O	6485-40-1	9.1	NA	1.0		
Chlorine	Cl2	7782-50-5	11.48	1	ZR	0.5	1
Chlorine dioxide	ClO2	10049-04-4	10.36	2	1.0	0.1	0.3
Chlorine trifluoride	ClF3	7790-91-2	12.65	NA	ZR		0.1
Chloro-1,1,1,2-tetrafluoroethane, 2	C2HClF4	2837-89-0	11.8	NA	ZR		
Chloro-1,1,1-trifluoroethane, 2-	C2H2ClF3	75-88-7	11.7	1	ZR		
Chloro-1,1,2,2-tetrafluoroethane, 1	C2HClF4	354-25-6	11.5	NA	ZR		
Chloro-1,1,2-trifluoroethane, 1-	C2H2ClF3	421-04-5	11.8	1	ZR		
Chloro-1,1-difluoroethane, 1-	C2H3ClF2	75-68-3	12.00	ZR	ZR		
Chloro-1,1-difluoroethane, 1-	C2H3ClF2	75-68-3	11.98	1	ZR		
Chloro-1,1-difluoroethane, 2-	C2H3ClF2	338-65-8	11.8	1	ZR		
Chloro-1,2,2-trifluoroethane, 1-	C2H2ClF3	431-07-2	11.5	1	ZR		
Chloro-1,3-butadiene, 2-	C4H5Cl	126-99-8	8.79	4	3.2	10	
Chloro-1-fluoroethane, 1-	C2H4ClF	1615-75-4	11.3	1	ZR		
Chloro-2-fluoroethane, 1-	C2H4ClF	762-50-5	11.3	1	ZR		
Chloroacetaldehyde	C2H3OCl	107-20-0	10.61	NA	ZR		1
Chlorobenzene	C6H5Cl	108-90-7	9.07	0.39	0.5	1	3
Chlorodifluoromethane	CHClF2	75-45-6	12.45	ZR	ZR	1000	
Chloroethane	C2H5Cl	75-00-3	10.97	1.1	ZR	1000	1250
Chloroethanol 2-	C2H5ClO	107-07-3	10.5	1	10.0		1
Chloroethyl methyl ether, 2-	C3H7ClO	627-42-9	9	NA	2.6		
Chlorofluoromethane	CH2ClF	593-70-4	11.71	NA	ZR		
Chloroform	CHCl3	67-66-3	11.42	3.5	ZR	2	
Chloromethane	CH3Cl	74-87-3	11.28	0.74	ZR	50	100
Chloropentafluoroethane	C2ClF5	76-15-3	12.96	ZR	ZR	1000	
Chlorotoluene, o-	C7H7Cl	95-49-8	8.83	0.6	0.5		
Chlorotoluene, p-	C7H7Cl	108-41-8	8.69	0.6	0.5		
Chlorotrifluoroethylene	C2ClF3	79-38-9	9.81	1	1.0		
Chlorotrifluoromethane	CClF3	75-72-9	12.60	NA	ZR		
Citral	C10H16O	5392-40-5	8.7	NA	1.0		
Citronellol	C10H20O	26489-01-0	8.5	NA	1.0		
Cresol, m-	C7H8O	108-39-4	8.97	NA	1.1	5	
Cresol, o-	C7H8O	95-48-7	8.97	NA	1.1	5	
Cresol, p-	C7H8O	106-44-5	8.97	NA	1.1	5	
Crotonaldehyde	C4H6O	4170-30-3	9.73	1	1.0		
Cumene	C9H12	98-82-8	8.75	0.4	0.6	25	50
Cyanamide	CH2N2	420-04-2	10.65	NA	ZR		
Cyanogen bromide	CNBr	506-68-3	11.84	ZR	ZR		
Cyanogen chloride	CNCl	506-77-4	12.49	ZR	ZR		0.3
Cyclohexane	C6H12	110-82-7	9.86	0.64	1.3	100	300
Cyclohexanol	C6H12O	108-93-0	10.00	1.1	2.9	50	
Cyclohexanone	C6H10O	108-94-1	9.40	0.7	1.1	10	20
Cyclohexene	C6H10	110-83-8	8.95	1	0.8		
Cyclohexylamine	C6H13N	108-91-8	8.37	1	1.0	10	
Cyclopentane	C5H10	287-92-3	10.52	0.6	4.0		
Decane, n-	C10H22	124-18-5	9.65	0.35	1.0		
Deuterium oxide	D2O	7789-20-0	13.6	ZR	ZR		
Diacetone alcohol	C6H12O2	123-42-2	9	NA	0.8		
Dibenzoyl peroxide	C14H10O4	94-36-0	9	NA	0.8		
Diborane	B2H6	19287-45-7	11.38	NA	ZR	0.1	
Dibromochloromethane	CHBr2Cl	124-48-1	10.59	0.7	10.0		
Dibromodifluoromethane	CF2Br2	75-61-6	11.07	NA	ZR	100	150
Dibromoethane 1,2-	C2H4Br2	106-93-4	9.45	0.6	2.0	0.5	
Dibromotetrafluoroethane, 1,2-	C2F4Br2	124-73-2	11.1	NA	ZR		
Dibutyl hydrogen phosphate	HC8H18PO4	107-66-4	10	NA	4.0	1	2
Dichloro-1,1,1-trifluoroethane, 2,2-	C2HCl2F3	306-83-2	11	NA	ZR		
Dichloro-1,1-difluoroethane, 1,2-	C2H2Cl2F2	1649-08-7	11	1	ZR		

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				11.7	10.6		
Dichloro-1,2,2-trifluoroethane, 1,2-	C2HCl2F3	354-23-4	11	NA	ZR		
Dichloro-1,2-difluoroethane, 1,2-	C2H2Cl2F2	631-06-1	11	1	ZR		
Dichloro-1-fluoroethane, 1,1-	C2H3Cl2F	1717-00-6	11	2	ZR		
Dichloro-1-fluoroethane, 1,1-	C2H3Cl2F	1717-00-6	11	1	ZR		
Dichloro-1-fluoroethane, 1,2-	C2H3Cl2F	430-57-9	11	1	ZR		
Dichloro-1-propene, 2,3-	C3H4Cl2	78-88-6	10.5	0.7	1.4		
Dichloro-2,2,-difluoroethane, 1,1-	C2H2Cl2F2	79-35-6	11.5	10	ZR		
Dichloroacetylene	C2Cl2	7572-29-4	9.9	NA	5.0		0.1
Dichlorobenzene o-	C6H4Cl2	95-50-1	9.06	0.38	0.5	25	50
Dichlorodifluoromethane	CCl2F2	75-71-8	11.75	ZR	ZR	1000	1250
Dichloroethane 1,2-	C2H4Cl2	107-06-2	11.05	0.6	ZR	5	
Dichloroethane, 1,1-	C2H4Cl2	75-34-3	11.06	2	ZR	100	
Dichloroethene, 1,1-	C2H2Cl2	75-35-4	10	1	1.0	10	
Dichloroethene, cis-1,2-	C2H2Cl2	156-59-2	9.66	1	0.8		
Dichloroethene, trans-1,2-	C2H2Cl2	540-59-0	9.65	0.3	0.7		
Dichloroethylene 1,2-	C2H2Cl2	540-59-0	9.65	NA	0.8	200	250
Dichlorofluoromethane	CHFCl2	75-43-4	12.39	ZR	ZR	10	
Dichloromethane	CH2Cl2	75-09-2	11.32	0.89	39	100	300
Dichloropropane, 1,2-	C3H6Cl2	78-87-5	10.87	0.7	ZR		
Dichlorotetrafluoroethane, 1,1-	C2Cl2F4	374-07-2	12.2	ZR	ZR		
Dichlorotetrafluoroethane, 1,2-	C2Cl2F4	76-14-2	12.2	ZR	ZR		
Dicyclopentadiene	C10H12	77-73-6	8	1	0.9		
Diesel Fuel		68334-30-5	8	0.4	0.8		
Diethyl ether	C4H10O	60-29-7	9.53	1.9	0.9	100	200
Diethyl maleate	C8H12O4	141-05-9	10	NA	2.0		
Diethyl phthalate	C12H14O4	84-66-2	9	NA	1.0		
Diethyl sulfate	C4H10SO4	64-67-5	NA	NA	3.0	0.05	
Diethyl sulfide	C4H10S	352-93-2	8.43	1	0.6		
Diethylamine	C4H11N	109-89-7	8.01	1	1.0	10	25
Diethylaminoethanol, 2-	C6H15ON	100-37-8	9	NA	2.7	10	
Diethylaminopropylamine, 3-	C7H18N2	104-78-9	9	NA	1.0		
Difluoroethane, 1,1-	C2H4F2	75-37-6	11.87	ZR	ZR		
Difluoroethane, 1,2-	C2H4F2	624-72-6	12	ZR	ZR		
Difluoromethane	CH2F2	75-10-5	12.71	ZR	ZR		
Dihydrogen selenide	H2Se	7783 07 5	9.88	NA	1.0	0.02	0.05
Dihydroxybenzene, 1,2	C6H6O2	120-80-9	9	NA	1.0	5	
Dihydroxybenzene, 1,3	C6H6O2	108-46-3	8.63	NA	1.0	10	20
Diisobutylene	C8H16	107-39-1	8.8	NA	0.6		
Diisopropyl ether	C6H14O	108-20-3	9.20	NA	0.7	250	310
Diisopropylamine	C6H15N	108-18-9	7.73	0.53	0.7	5	
Diketene	C4H4O2	674-82-8	9.60	1.4	2.2		
Dimethoxymethane	C3H8O2	109-87-5	9.7	NA	1.4	1000	1250
Dimethyl cyclohexane, 1,2-	C8H16	583-57-3	9.41	NA	1.1		
Dimethyl disulfide	C2H6S2	624-92-0	7.40	0.2	0.2		
Dimethyl ether	C2H6O	115-10-6	10.03	NA	1.3	400	500
Dimethyl phthalate	C10H10O4	131-11-3	9.64	NA	1.0		
Dimethyl sulfate	C2H6O4S	77-78-1	12	2.3	ZR	0.05	
Dimethylacetamide N,N-	C4H9NO	127-19-5	8.81	0.8	1.3	10	20
Dimethylamine	C2H7N	124-40-3	8.24	2	1.4	2	6
Dimethylaminoethanol	C4H11NO	108-01-0	9	NA	1.5	2	6
Dimethylaniline, NN-	C8H11N	121-69-7	7.12	NA	0.6	5	10
Dimethylbutyl acetate	C8H16O2	108-84-9	7.74	2	1.6	50	100
Dimethylethylamine, NN-	C4H11N	598-56-1	8.5	0.9	0.8	10	15
Dimethylformamide	C3H7NO	68-12-2	9.13	1	0.9	10	20
Dimethylheptan-4-one, 2,6-	C9H18O	108-83-8	9.04	NA	0.8	25	
Dimethylhydrazine, 1,1-	C2H8N2	57-14-7	8.05	0.8	1.0		
Dinitrobenzene, m-	C6H4N2O4	99-65-0	10.43	NA	3.0	0.15	0.5
Dinitrobenzene, o-	C6H4N2O4	528-29-0	10.71	NA	ZR	0.15	0.5
Dinitrobenzene, p-	C6H4N2O4	100-25-4	10.5	NA	5.0	0.15	0.5
Dinonyl phthalate	C26H42O4	84-76-4	9.19	NA	1.0		
Dioxane 1,2-	C4H8O2	5703-46-8	9.2	NA	1.5		
Dioxane 1,4-	C4H8O2	123-91-1	9.13	NA	1.5	25	100
Dipentene	C10H16	138-86-3	8.6	1	0.9		
Diphenyl ether	C12H10O	101-84-8	8.09	NA	0.8	1	
Disulfur decafluoride	S2F10	5714-22-7	12.77	NA	ZR	0.025	0.075

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Disulfur dichloride	S2Cl2	10025-67-9	10	NA	3.0		1
Di-tert-butyl-p-cresol	C11H16O	2409-55-4	8.3	NA	1.0		
Divinylbenzene	C10H10	1321-74-0	8.2	NA	0.4	10	
Dodecanol	C12H26O	112-53-8	9.8	1	0.9		
Enflurane	C4H2F5ClO	13838-16-9	11	NA	ZR	50	
Epichlorohydrin	C3H5ClO	106-89-8	10.20	1.4	8.0	0.5	1.5
Epoxypropyl isopropyl ether, 2,3-	C6H12O2	4016-14-2	10	NA	1.1	50	75
Ethane	C2H6	74-84-0	11.56	3	ZR		
Ethanol	C2H6O	64-17-5	10.43	8	8.7	1000	
Ethanolamine	C2H7NO	141-43-5	10.47	3	3.0		
Ethoxy-2-propanol, 1-	C5H10O2	1569-02-4	9.6	0.8	2.0	50	100
Ethoxyethanol, 2-	C4H10O2	110-80-5	9.6	3	29.8	10	
Ethoxyethyl acetate, 2-	C6H12O3	111-15-9	10	NA	3.0		
Ethyl (S)-(-)-lactate	C5H10O3	97-64-3	10.00	1.6	3.0		
Ethyl acetate	C4H8O2	141-78-6	10.01	1	3.6	200	400
Ethyl acrylate	C5H8O2	140-88-5	10.30	1	2.0	5	15
Ethyl amine	C2H7N	75-04-7	8.86	1	1.0	2	6
Ethyl benzene	C8H10	100-41-4	8.76	0.51	0.5	100	125
Ethyl butyrate	C6H12O2	105-54-4	9.9	NA	1.0		
Ethyl chloroformate	C3H5O2Cl	541-41-3	10.64	1.955	83.0	1	
Ethyl cyanoacrylate	C6H7O2N	7085-85-0	10	NA	1.5		0.3
Ethyl decanoate	C12H24O2	110-38-3	9.6	NA	1.8		
Ethyl formate	C3H6O2	109-94-4	10.61	1.9	29.8	100	150
Ethyl hexanoate	C8H16O2	123-66-0	9.75	NA	2.6		
Ethyl hexanol, 2-	C8H18O	105-76-7	9.8	1	1.5		
Ethyl hexyl acrylate, 2-	C11H20O2	103-11-7	9.00	0.5	1.0		
Ethyl mercaptan	C2H6S	75-08-1	9.29	1	0.7	0.5	2
Ethyl octanoate	C10H20O2	106-32-1	9.7	NA	2.3		
Ethylene	C2H4	74-85-1	10.51	3	8.0		
Ethylene dinitrate	C2H4O6N2	628-96-6	10.8	NA	ZR	0.2	0.2
Ethylene glycol	C2H6O2	107-21-1	10.16	NA	20.0		
Ethylene oxide	C2H4O	75-21-8	10.56	2	15.0	5	
Ferrocene	C10H10Fe	102-54-5	6.88	NA	0.8		
Fluorine	F2	7782-41-4	15.697	NA	ZR	1	1
Fluoroethane	C2H5F	353-33-6	11.78	NA	ZR		
Fluoromethane	CH3F	593-53-3	12.47	NA	ZR		
Formaldehyde	CH2O	50-00-0	10.87	0.6	ZR	2	2
Formamide	CH3ON	75-12-7	10.2	NA	2.0	20	30
Formic acid	CH2O2	64-18-6	11.05	5	ZR	5	
Furfural	C5H4O2	98-01-1	9.21	0.8	1.4		
Furfuryl alcohol	C5H6O2	98-00-0	9.9	NA	2.0	5	15
Gasoline vapors		8006-61-9	9.9	NA	0.8		
Gasoline vapors 92 octane		8006-61-9	9.9	0.47	0.8		
Germane	GeH4	7782-65-2	11.34	NA	10.0	0.2	0.6
Glutaraldehyde	C5H8O2	111-30-8	9.6	0.6	0.9	0.05	0.05
Halothane	CF3CHBrCl	151-67-7	11.00	0.6	ZR	10	
Helium	He	7440-59-7	24.58741	NA	ZR		
Heptan-2-one	C7H14O	110-43-0	9.33	NA	0.7	50	100
Heptan-3-one	C7H14O	106-35-4	9.02	NA	0.8	35	100
Heptane n-	C7H16	142-82-5	9.92	0.6	2.1	500	
Hexachloroethane	C2Cl6	67-72-1	11.22	1	ZR	5	
Hexafluoroethane	C2F6	76-16-4	13.60	ZR	ZR		
Hexamethyldisilazane, 1,1,1,3,3,3-	C6H19NSi2	999-97-3	8.6	0.19	1.0		
Hexamethyldisiloxane.	C6H18OSi2	107-46-0	9	NA	0.3		
Hexan-2-one	C6H12O	591-78-6	9.34	NA	0.8	5	
Hexane n-	C6H14	110-54-3	10.13	0.5	4.2	20	
Hexene, 1-	C6H12	592-41-6	9.44	NA	0.9		
Hydrazine	H4N2	302-01-2	8.93	2.1	3.0	0.02	0.1
Hydrazoic acid	HN3	7782-79-8	10.72	NA	ZR		0.1
Hydrogen	H2	1333-74-0	15.43	ZR	ZR		
Hydrogen bromide	HBr	10035-10-6	11.62	NA	ZR		3
Hydrogen chloride	HCl	7647-01-0	12.74	NA	ZR	1	5
Hydrogen cyanide	HCN	74-90-8	13.60	ZR	ZR		10
Hydrogen fluoride	HF	7664-39-3	15.98	NA	ZR	1.8	3
Hydrogen peroxide	H2O2	7722-84-1	10.54	1	4.0	1	2

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Hydrogen sulfide	H2S	7783-06-4	10.46	1.5	4.0	5	10
Hydroquinone	C6H6O2	123-31-9	7.94	NA	0.8		
Hydroxypropyl acrylate 2-	C6H10O3	999-61-1	9	NA	1.5	0.5	
Iminodi(ethylamine) 2,2-	C4H13N3	111-40-0	9	NA	0.9	1	
Iminodiethanol 2,2'-	C4H11NO2	111-42-2	9	NA	1.6	3	
Indene	C9H8	95-13-6	8.81	NA	0.5	10	15
Iodine	I2	7553-56-2	9.31	0.1	0.2		0.1
Iodoform	CHI3	75-47-8	9.25	NA	1.5	0.6	1
Iodomethane	CH3I	74-88-4	9.54	0.26	0.4	2	
Isoamyl acetate	C7H14O2	123-92-2		NA	1.6	50	100
Isobutane	C4H10	75-28-5	10.57	1.2	8.0		
Isobutanol	C4H10O	78-83-1	10.12	1.5	3.5	50	75
Isobutyl acetate	C6H12O2	110-19-0	9.90	NA	2.3	150	187
Isobutyl acrylate	C7H12O2	106-63-8	9.50	0.6	1.3		
Isobutylene	C4H8	115-11-7	9.24	1	1.0		
Isobutyraldehyde	C4H8O	78-84-2	9.00	NA	1.2		
Isocyanates, all			10	NV	NV		
Isodecanol	C10H22O	25339-17-7	9.8	1	0.9		
Isoflurane	C3H2ClF5O	26675-46-7	11	NA	ZR	50	
Isononanol	C9H20O	2452-97-9	9.8	1	1.5		
Isooctane	C8H18	565-75-3	9.86	1	1.1		
Isooctanol	C8H18O	26952-21-6	9.8	1	1.7		
Isopentane	C5H12	78-78-4	10.32	4	6.0		
Isophorone	C9H14O	78-59-1	9.07	NA	0.8		5
Isoprene	C5H8	78-79-5	8.85	0.6	0.7	250	100
Isopropanol	C3H8O	67-63-0	10.17	2.7	4.4	400	500
Isopropyl acetate	C5H10O2	108-21-4	9.99	NA	2.2		200
Isopropyl chloroformate	C4H7O2Cl	108-23-6	10.2	NA	1.6	1	
Jet Fuel JP-4			9	0.42	0.8		
Jet Fuel JP-5			9	0.46	0.7		
Jet Fuel JP-8			9	0.32	0.7	30	15
Kerosene		8008-20-6	8	NA	0.8		
Ketene	C2H2O	463-51-4	9.617	NA	3.0	0.5	1.5
Krypton	Kr	7439-90-9	13.9996	ZR	ZR		
Liquefied petroleum gas		68476-85-7	10.95	NA	ZR	1000	1250
Maleic anhydride	C4H2O3	108-31-6	9.9	NA	2.0		
Mercaptoacetic acid	C2H4O2S	68-11-1	9.8	NA	1.0	1	
Mercury	Hg	7439-97-6	10.4375	NV	NV		
Mercury alkyls				NV	NV		
Mesitylene	C9H12	108-67-8	8.41	0.32	0.3	250	100
Methacrylic acid	C4H6O2	79-41-4	10.15	NA	2.3	20	40
Methacrylonitrile	C4H5N	126-98-7	10.34	NA	5.0	1	
Methane	CH4	74-82-8	12.51	ZR	ZR		
Methanol	CH4O	67-56-1	10.85	2.5	200.0	200	250
Methoxyethanol, 2-	C3H8O2	109-86-4	9.60	1.4	2.7		
Methoxyethoxyethanol, 2-	C5H12O3	111-77-3	10.00	0.9	1.4		
Methoxymethylethoxy-2-propanol	C7H16O3	34590-94-8	9.3	NA	1.3	50	
Methoxypropan-2-ol	C4H10O2	107-98-2	9.4	1.1	3.0	100	150
Methoxypropyl acetate	C6H12O3	108-65-6	9	0.8	1.2	50	100
Methyl acetate	C3H6O2	79-20-9	10.27	1.4	5.2	200	250
Methyl acrylate	C4H6O2	96-33-3	10.25	1.2	3.4	10	
Methyl bromide	CH3Br	74-83-9	10.54	1.3	1.9	5	2
Methyl cyanoacrylate	C5H5O2N	137-05-3	10	NA	5.0		0.3
Methyl ethyl ketone	C4H8O	78-93-3	9.51	1.1	0.8	200	300
Methyl ethyl ketone peroxides	C8H18O2	1338-23-4		NA	0.8		0.2
Methyl formate	C2H4O2	107-31-3	10.82	NA	ZR	100	150
Methyl isobutyl ketone	C6H12O	108-10-1	9.30	0.6	0.8	50	100
Methyl isocyanate	C2H3NO	624-83-9	10.67	1.5	ZR		
Methyl isothiocyanate	C2H3NS	556-61-6	9.25	0.4	0.6		
Methyl mercaptan	CH4S	74-93-1	9.44	1	0.7	0.5	
Methyl methacrylate	C5H8O2	80-62-6	9.70	1.2	1.6	50	100
Methyl salicylate	C8H8O3	119-36-8	9.7	NA	1.2		
Methyl sulfide	C2H6S	75-18-3	8.69	0.46	0.5		
Methyl t-butyl ether	C5H12O	1634-04-4	9.24	1	0.8	25	75

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Methyl-2-propen-1-ol, 2-	C4H8O	51-42-8	9.6	NA	1.1		
Methyl-2-pyrrolidinone, N-	C5H9NO	872-50-4	9.17	0.9	0.9	25	75
Methyl-4,6-dinitrophenol, 2-	C7H6N2O5	534-52-1	9.1	NA	3.0		
Methyl-5-hepten-2-one, 6-	C8H14O	110-93-0	9.4	NA	0.8		
Methylamine	CH5N	74-89-5	8.97	1	1.4	10	
Methylbutan-1-ol, 3-	C5H12O	123-51-3	9.8	NA	3.4	100	125
Methylcyclohexane	C7H14	108-87-2	9.85	0.53	1.1	500	400
Methylcyclohexanol, 4-	C7H14O	589-91-3	9.8	NA	2.4	50	75
Methylcyclohexanone 2-	C7H12O	583-60-8	9.2	NA	1.0	50	75
Methylheptan-3-one, 5-	C8H16O	541-85-5	9.1	NA	0.8	10	20
Methylhexan-2-one, 5-	C7H14O	110-12-3	9.28	NA	0.8	20	100
Methylhydrazine	CH6N2	60-34-4	8.00	1.3	1.3		
Methyl-N-2,4, 6-tetranitroaniline, N-	C7H5N5O8	479-45-8	9.00	NA	3.0		
Methylpent-3-en-2-one, 4-	C6H10O	141-79-7	9.00	NA	0.7	15	25
Methylpentan-2-ol, 4-	C6H14O	108-11-2	9.80	NA	2.8	25	40
Methylpentane-2,4-diol, 2-	C6H14O2	107-41-5	9.00	NA	4.0	25	25
Methylpropan-2-ol, 2-	C4H10O	75-65-0	9.7	NA	3.5	100	150
Methylstyrene	C9H10	25013-15-4	8.20	1	0.5	100	150
Mineral oil		8042-47-5	9.00	NA	0.8		
Mineral spirits		64475-85-0	9.00	0.39	0.8		
Naphthalene	C10H8	91-20-3	8.14	0.4	0.4	10	15
Neon	Ne	09/01/7440	21.56	ZR	ZR		
Nitric oxide	NO	10102-43-9	9.27	2.8	8.0	25	35
Nitroaniline 4-	C6H6N2O2	100-01-6	8.85	NA	0.8		
Nitrobenzene	C6H5NO2	98-95-3	9.92	1.6	1.7	1	2
Nitroethane	C2H5NO2	79-24-3	10.88	3	ZR	100	
Nitrogen dioxide	NO2	10102-44-0	9.58	ZR	10.0	3	5
Nitrogen trichloride	NCI3	10025-85-1	10.22	1	1.0		
Nitrogen trifluoride	NF3	7783-54-2	12.97	NA	ZR	10	15
Nitromethane	CH3NO2	75-52-5	11.08	4	ZR	100	150
Nitropropane, 1-	C3H7NO2	108-03-2	10.81	NA	ZR	25	
Nitropropane, 2-	C3H7NO2	79-46-9	10.71	2.6	ZR		
Nitrous oxide	N2O	10024-97-2	12.886	NA	ZR	100	
Nonane, n-	C9H20	111-84-2	9.72	1	1.3		
Norbornadiene, 2,5-	C7H8	121-46-0	8	NA	0.6		
Octachloronaphthalene	C10Cl8	2234-13-1	9	NA	1.0		
Octane, n-	C8H18	111-65-9	9.8	NA	1.6		
Octene, 1-	C8H16	111-66-0	9.43	NA	0.7		
Oxalic acid	C2H2O4	144-62-7	11	NA	ZR		
Oxalonnitrile	C2N2	460-19-5	13.57	NA	ZR	10	
Oxydiethanol 2,2-	C4H10O3	111-46-6		NA	4.0	23	
Oxygen	O2	7782-44-7	12.0697	NA	ZR		
Ozone	O3	10028-15-6	12.52	NA	ZR		0.2
Paraffin wax, fume		8002-74-2		NA	1.0		
Paraffins, normal		64771-72-8	10	1	1.0		
Pentacarbonyl iron	FeC5O5	13463-40-6	9	NA	1.0	0.01	
Pentachloroethane	C2HCl5	76-01-7	11.28	NA	ZR		
Pentachlorofluoroethane	C2Cl5F	354-56-3	11.8	NA	ZR		
Pentafluoroethane	C2HF5	354-33-6	12	NA	ZR		
Pentan-2-one	C5H10O	107-87-9	9.38	NA	0.8	200	250
Pentan-3-one	C5H10O	96-22-0	9.31	NA	0.8	200	250
Pentandione, 2,4-	C5H8O2	123-54-6	8.85	NA	0.8		
Pentane, n-	C5H12	109-66-0	10.35	0.7	7.9	750	600
Peracetic acid	C2H4O3	79-21-0		2.3	2.0		
Perchloryl fluoride	ClO3F	7616-94-6	13.60	NA	ZR	3	6
Perfluorocyclobutane	C4F8	115-25-3	13.5	ZR	ZR		
Perfluoropropane	C3F8	76-19-7	13.38	NA	ZR		
Petroleum ether		8032-32-4	10	1	0.9		
Phenol	C6H6O	108-95-2	8.51	0.9	1.2	2	
Phenyl propene, 2-	C9H10	98-83-9	8.35	NA	0.4	50	100
Phenyl-2,3-epoxypropyl ether	C9H10O2	122-60-1	8.6	NA	0.8	1	
Phenylenediamine, p-	C6H8N2	106-50-3	6.89	NA	0.6		
Phosgene	COCl2	75-44-5	11.55	2.1	ZR	0.02	0.06
Phosphine	PH3	7803-51-2	9.96	1.4	2.0		0.3
Picoline, 3-	C6H7N	108-99-6	9.04	1	0.9		

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Pinene, alpha	C10H16	80-56-8	8.07	0.47	0.3		
Pinene, beta	C10H16	127-91-3	8.1	0.37	0.3		
Piperidine	C5H11N	110-89-4	8.03	NA	0.9	1	
Piperylene	C5H8	504-60-9	8.6	0.64	0.7		
Prop-2-yn-1-ol	C3H4O	107-19-7	9	NA	1.3	1	3
Propan-1-ol	C3H8O	71-23-8	10.2	1.7	4.8	200	250
Propane	C3H8	74-98-6	11.07	1.8	ZR		
Propane-1,2-diol, total	C3H8O2	57-55-6		NA	10.0	150	
Propene	C3H6	115-07-1	9.73	1	1.4		
Propionaldehyde	C3H6O	123-38-6	9.95	2	1.7		
Propionic acid	C3H6O2	79-09-4	10.24	NA	8.0	10	15
Propyl acetate, n-	C5H10O2	109-60-4	10.04	4	2.5	200	250
Propylene dinitrate	C3H6N2O6	6423-43-4	11	NA	ZR	0.2	0.2
Propylene oxide	C3H6O	75-56-9	10.22	2	7.0	5	
Propyleneimine	C3H7N	75-55-8	9	1	1.3		
Pyridine	C5H5N	110-86-1	9.25	0.7	0.8	5	10
Pyridylamine 2-	C5H6N2	504-29-0	9	NA	0.8	0.5	2
Silane	SiH4	7803-62-5	11	NA	ZR	0.5	1
Sodium fluoroacetate	C2H2O2FNa	62-74-8	11	NA	ZR		
Styrene	C8H8	100-42-5	8.4	0.42	0.4	100	250
Sulfur dioxide	SO2	7446-09-5	12.3	1.3	ZR	2	5
Sulfur hexafluoride	SF6	2551-62-4	19.3	NA	ZR	1000	1250
Sulfur tetrafluoride	SF4	7783-60-0	12.63	NA	ZR	0.1	0.3
Sulfuric acid	H2SO4	7664-93-9	12	NA	ZR		
Sulfuryl fluoride	SO2F2	2699-79-8	13.04	NA	ZR	5	10
Terphenyls	C18H14	61788-32-7		NA	0.6		0.5
Terpinolene	C10H16	586-62-9	8.1	NA	0.5		
Tert-butanol	C4H10O	75-65-0	9.8	NA	2.6		
Tetrabromoethane, 1,1,2,2-	C2H2Br4	79-27-6	10	NA	2.0	0.5	
Tetracarbonylnickel	NiC4O4	13463-39-3	8.28	NA	1.0		0.1
Tetrachloro-1,2-difluoroethane, 1,1,2,2-	C2Cl4F2	76-12-0	11.3	NA	ZR	100	100
Tetrachloro-1-fluoroethane, 1,1,2,2-	C2HCl4F	354-14-3	11	NA	ZR		
Tetrachloro-2,2-difluoroethane, 1,1,1,1-	C2Cl4F2	76-11-9	11	NA	ZR	100	100
Tetrachloro-2-fluoroethane, 1,1,1,2-	C2HCl4F	354-11-0	11	NA	ZR		
Tetrachloroethane, 1,1,1,2-	C2H2Cl4	630-20-6	11.1	0.6	ZR		
Tetrachloroethane, 1,1,2,2-	C2H2Cl4	79-34-5	11.1	0.2	ZR		
Tetrachloroethylene	C2Cl4	127-18-4	9.326	0.31	0.7	50	100
Tetrachloronaphthalenes, all isomers	C10H4Cl4	20020-02-4	8.5	NA	1.0		
Tetraethyl orthosilicate	C8H20O4Si	78-10-4	9.8	0.2	2.0	10	30
Tetraethyllead	C8H20Pb	78-00-2	11.1	0.2	ZR		
Tetrafluoroethane, 1,1,1,2-	C2H2F4	811-97-2	11	ZR	ZR	1000	
Tetrafluoroethane, 1,1,2,2-	C2H2F4	359-35-3	11	ZR	ZR		
Tetrafluoroethylene	C2F4	116-14-3	10.12	1	1.0		
Tetrafluoromethane	CF4	75-73-0	15.3	ZR	ZR		
Tetrahydrofuran	C4H8O	109-99-9	9.41	1	1.6	50	100
Tetramethyl orthosilicate	C4H12O4Si	681-84-5	11	NA	ZR	1	5
Tetramethyl succinonitrile	C8H12N2	3333-52-6		NA	1.0	0.5	2
Therminol		1336-36-3	9	0.51	1.0	5	2
Thionyl chloride	SOCl2	7719-09-7	10.96	NA	ZR		1
Toluene	C7H8	108-88-3	8.82	0.51	0.5	50	150
Toluene-2,4-diisocyanate	C9H6N2O2	584-84-9	8.82	2	1.6		
Toluenesulfonyl chloride, p-	C7H7SO2Cl	98-59-9		NA	3.0		
Toluidine, o-	C7H9N	95-53-4	7.4	1	0.5		
Tributyl phosphate	C12H27O4P	126-73-8		NA	5.0		
Tributylamine	C12H27N	102-82-9	7.4	NA	1.0		
Trichloro-1,1-difluoroethane, 1,2,2-	C2HCl3F2	354-21-2	11	NA	ZR		
Trichloro-1,2-difluoroethane, 1,1,2-	C2HCl3F2	354-15-4	11	NA	ZR		
Trichloro-2,2-difluoroethane, 1,1,1-	C2HCl3F2	354-12-1	11	NA	ZR		
Trichloro-2-fluoroethane, 1,1,2-	C2H2Cl3F	359-28-4	11	1	ZR		
Trichlorobenzene 1,2,4-	C6H3Cl3	120-82-1	9.04	NA	0.6	1	5
Trichloroethane, 1,1,1-	C2H3Cl3	71-55-6	11	1	ZR	100	200
Trichloroethane, 1,1,2-	C2H3Cl3	79-00-5	11	1	ZR		
Trichloroethylene	C2HCl3	79-01-6	9.45	0.43	0.7	100	150
Trichlorofluoromethane	CCl3F	75-69-4	11.77	NA	ZR	1000	1250
Trichloronitromethane	CCl3NO2	76-06-2	13	NA	ZR	0.1	0.3

Compound	Formula	CAS	Ionisation Potential			EH40 ppm STEL	EH40 ppm TWA
				11.7	10.6		
Trichlorophenoxyacetic acid, 2,4,5-	C8H5O3Cl3	93-76-5		NA	1.0		
Trichloropropane 1,2,3-	C3H5Cl3	96-18-4	11	NA	ZR	50	75
Trichlorotrifluoroethane, 1,1,1-	C2Cl3F3	354-58-5	11.5	2	ZR		
Trichlorotrifluoroethane, 1,1,2-	C2Cl3F3	76-13-1	11.99	2	ZR	1000	1250
Triethylamine	C6H15N	121-44-8	7.5	0.65	0.9	2	4
Trifluoroethane, 1,1,1-	C2H3F3	420-46-2	12.9	34	ZR		
Trifluoroethane, 1,1,2-	C2H3F3	430-66-0	12.9	34	ZR		
Trifluoroethanol, 2,2,2-	C2H3F3O	75-89-8	13.00	34	ZR		
Trifluoromethane	CHF3	75-46-7	13.86	NA	ZR		
Trimethylamine	C3H9N	53-50-3	7.82	0.3	0.5	10	15
Trimethylbenzene mixtures	C9H12	25551-13-7	8.41	0.3	0.3	25	
Trimethylbenzene, 1,3,5-	C9H12	108-67-8	8.39	0.32	0.3	250	100
Trinitrotoluene 2,4,6-	C7H5N3O6	118-96-7	10.59	NV	ZR		
Turpentine	C10H16	8006-64-2	8	1	0.6	100	150
TVOC			(10)	(1)	(1)		
Undecane, n-	C11H24	1120-21-4	9.56	1	0.9		
Vinyl acetate	C4H6O2	108-05-2	9.19	1	1.1	10	20
Vinyl bromide	C2H3Br	593-60-2	9.8	NA	1.0		
Vinyl chloride	C2H3Cl	75-01-4	9.99	0.6	2.1	7	
Vinyl-2-pyrrolidinone, 1-	C6H9NO	88-12-0	9	0.92	0.9		
Water	H2O	7732-18-5	12.61	ZR	ZR		
Xenon	Xe	7440-63-3	12.1299	ZR	ZR		
Xylene mixed isomers	C8H10	1330-20-7	8.56	NA	0.4	50	100
Xylene, m-	C8H10	108-38-3	8.56	0.4	0.4	50	100
Xylene, o-	C8H10	95-47-6	8.56	0.69	0.6	50	100
Xylene, p-	C8H10	106-42-3	8.44	0.62	0.6	50	100
Xylidine, all	C8H11N	1300-73-8	7.5	NA	0.7	2	10

ZR - no response

NA- no data available

NV - not sufficiently volatile to be detectable

EH 40 values believed accurate at time of compilation. Check the latest EH40 to be sure of accuracy
Correction Factor Data for PhoCheck, FirstCheck and TVOC PIDs supplied by and copyright of
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Manufacturers of PIDs all use slightly different correction factor data. Always check your particular
manufacturers' data.

If the compound of interest is not listed, please contact Shawcity for advice

Contact Shawcity Limited 01367 246960 info@shawcity.co.uk www.shawcity.co.uk

HOW TO USE THIS TABLE

1. Look for the compound you wish to measure.
If it has an Ionisation Potential (IP) of less than 11.7 it can be measured with a PID
2. If the IP is less than 10.6 it may be measured with a standard 10.6 eV lamp
3. If the IP is more than 10.6, and less than 11.7, you will need to use the 11.7 eV lamp
4. Check the Correction Factor for the compound in column 5 (or 6) to use with your PID
in order for the display to show parts per million of that specific compound
If monitoring for total VOCs - i.e. a mixture of VOCs - the Correction Factor is 1. So what you
see on the display is an actual value*
5. Check the EH40 column for STEL & TWA workplace exposure values to set alarm levels

*If the specific makeup of the mixture is known, you can set the appropriate Correction Factor
Ask Shawcity for details of how to do this.



Pioneer Road Faringdon Oxfordshire SN7 7BU
Tel: 01367 246960 Fax: 01367 243200
info@shawcity.co.uk www.shawcity.co.uk