

## GX-6000 PID gas list

Added gas

Updated part

| Gas name                      | Chemical formula | CAS No.    | Conversion factor | Comment   |
|-------------------------------|------------------|------------|-------------------|-----------|
| <b>A</b>                      |                  |            |                   |           |
| Acetaldehyde                  | C2H4O            | 75-07-0    | 3.4               |           |
| Acetamide                     | C2H5NO           | 60-35-5    | 2                 |           |
| Acetic acid                   | C2H4O2           | 64-19-7    | 36.2              |           |
| Acetic anhydride              | C4H6O3           | 108-24-7   | 4                 |           |
| Acetoin                       | C4H8O2           | 513-86-0   | 1                 |           |
| Acetone                       | C3H6O            | 67-64-1    | 0.7               |           |
| Acetophenone                  | C8H8O            | 98-86-2    | 0.6               |           |
| Acetyl bromide                | C2H3BrO          | 506-96-7   | 3                 |           |
| Acetylglycine, N-             | C4H7NO3          | 543-24-8   | 2                 |           |
| Acrolein                      | C3H4O            | 107-02-8   | 3.2               |           |
| Acrylic Acid                  | C3H4O2           | 79-10-7    | 2.7               |           |
| Alkanes, n-, C6+              | CnH2n+2          |            | 1                 |           |
| Allyl acetoacetate            | C7H10O3          | 1118-84-9  | 1.5               | New added |
| Allyl alcohol                 | C3H6O            | 107-18-6   | 2.1               |           |
| Allyl bromide                 | C3H5Br           | 106-95-6   | 3                 |           |
| Allyl chloride                | C3H5Cl           | 107-05-1   | 4.5               |           |
| Allyl glycidyl ether          | C6H10O2          | 106-92-3   | 0.8               |           |
| Allyl propyl disulfide        | C6H12S2          | 2179-59-1  | 0.4               |           |
| Ammonia                       | NH3              | 7664-41-7  | 8.5               |           |
| Amyl acetate                  | C7H14O2          | 628-63-7   | 1.8               |           |
| Amyl alcohol                  | C5H12O           | 71-41-0    | 3.5               |           |
| Amyl alcohol, tert-           | C5H12O           | 75-85-4    | 1.5               |           |
| Anethole                      | C10H12O          | 104-46-1   | 0.4               |           |
| Aniline                       | C6H7N            | 62-53-3    | 0.48              |           |
| Anisole                       | C7H8O            | 100-66-3   | 0.5               |           |
| Anisaldehyde                  | C8H8O2           | 123-11-5   | 0.4               |           |
| Arsine                        | AsH3             | 7784-42-1  | 2.5               |           |
| Asphalt, petroleum fumes      |                  | 8052-42-4  | 1                 |           |
| <b>B</b>                      |                  |            |                   |           |
| Benzaldehyde                  | C7H6O            | 100-52-7   | 0.9               |           |
| Benzene                       | C6H6             | 71-43-2    | 0.46              |           |
| Benzene thiol                 | C6H5SH           | 108-98-5   | 0.7               |           |
| Benzoic acid                  | C7H6O2           | 65-85-0    | 0.7               |           |
| Benzonitrile                  | C7H5N            | 100-47-0   | 0.7               |           |
| Benzoquinone, o-              | C6H4O2           | 583-63-1   | 1                 |           |
| Benzoquinone, p-              | C6H4O2           | 106-51-4   | 1                 |           |
| Benzoyl bromide               | C7H5BrO          | 618-32-6   | 2                 |           |
| Benzyl 2-phenylacetate        | C15H14O2         | 102-16-9   | 0.5               |           |
| Benzyl acetate                | C9H10O2          | 140-11-4   | 0.6               |           |
| Benzyl alcohol                | C7H8O            | 100-51-6   | 1.3               |           |
| Benzyl chloride               | C7H7Cl           | 100-44-7   | 0.48              |           |
| Benzyl formate                | C8H8O2           | 104-57-4   | 0.8               |           |
| Benzyl isobutyrate            | C11H14O2         | 103-28-6   | 0.5               |           |
| Benzyl nitrile                | C8H7N            | 140-29-4   | 1                 |           |
| Benzyl propionate             | C10H12O2         | 122-63-4   | 0.5               |           |
| Benzylamine                   | C7H9N            | 100-46-9   | 0.6               |           |
| Biphenyl                      | C12H10           | 92-52-4    | 0.4               |           |
| Borneol                       | C10H18O          | 507-70-0   | 0.8               |           |
| Bromine                       | Br2              | 7726-95-6  | 15                |           |
| Bromo-2,2-dimethylpropane, 1- | C5H11Br          | 630-17-1   | 2                 |           |
| Bromo-2-chloroethane, 1-      | C2H4BrCl         | 107-04-0   | 8                 |           |
| Bromo-2-methylpentane, 1-     | C6H13Br          | 25346-33-2 | 2                 |           |
| Bromoacetone                  | C3H5BrO          | 598-31-2   | 1                 |           |

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| Bromoacetylene                     | C2HBr            | 593-61-3   | 4                 |                                |
| Bromobenzene                       | C6H5Br           | 108-86-1   | 0.3               |                                |
| Bromobutane, 1-                    | C4H9Br           | 109-65-9   | 1                 |                                |
| Bromobutane, 2-                    | C4H9Br           | 78-76-2    | 1.5               |                                |
| Bromocyclohexane                   | C6H11Br          | 108-85-0   | 3                 |                                |
| Bromoethane                        | C2H5Br           | 74-96-4    | 5                 |                                |
| Bromoethanol, 2-                   | C2H5BrO          | 540-51-2   | 2                 |                                |
| Bromoethyl methyl ether, 2-        | C3H7BrO          | 6482-24-2  | 2.5               |                                |
| Bromoform                          | CHBr3            | 75-25-2    | 2.8               |                                |
| Bromopentane, 1-                   | C5H11Br          | 110-53-2   | 2                 |                                |
| Bromopropane, 1-                   | C3H7Br           | 106-94-5   | 1.3               |                                |
| Bromopyridine, 3-                  | C5H4BrN          | 626-55-1   | 2                 | CAS No. modified from 625-55-1 |
| Bromopyridine, 4-                  | C5H4BrN          | 1120-87-2  | 2                 |                                |
| Bromotrimethylsilane               | C3H9BrSi         | 2857-97-8  | 2                 |                                |
| But-2-ynal                         | C4H4O            | 1119-19-3  | 3                 |                                |
| But-3-ynal                         | C4H4O            | 52844-23-2 | 1.5               |                                |
| Butadiene diepoxide, 1,3-          | C4H6O2           | 1464-53-5  | 4                 |                                |
| Butadiene, 1,3-                    | C4H6             | 106-99-0   | 0.8               |                                |
| Butane, n-                         | C4H10            | 106-97-8   | 44                |                                |
| Butanedione, 2,3-                  | C4H6O2           | 431-03-8   | 0.4               |                                |
| Butanoic acid                      | C4H8O2           | 107-92-6   | 5                 |                                |
| Butanol, 1-                        | C4H10O           | 71-36-3    | 4                 |                                |
| Butanol, 2-                        | C4H10O           | 78-92-2    | 3.0               |                                |
| Buten-3-ol, 1-                     | C4H8O            | 598-32-3   | 1.2               |                                |
| Butene, 1-                         | C4H8             | 106-98-9   | 1.5               |                                |
| Butene, 2-                         | C4H8             | 107-01-7   | 1.3               |                                |
| Butene, cis-2-                     | C4H8             | 590-18-1   | 1.3               |                                |
| Butene, trans-2-                   | C4H8             | 624-64-6   | 1.3               |                                |
| Butenoic acid, 3-                  | C4H6O2           | 107-93-7   | 2                 |                                |
| Butoxyethanol, 2-                  | C6H14O2          | 111-76-2   | 1.1               |                                |
| Butoxyethoxyethanol                | C8H18O3          | 112-34-5   | 1.0               | New added                      |
| Butoxyethylacetate, 2-             | C8H16O3          | 112-07-2   | 3                 |                                |
| Butyl acetate                      | C6H12O2          | 123-86-4   | 2.4               |                                |
| Butyl acetate, sec-                | C6H12O2          | 105-46-4   | 2.4               |                                |
| Butyl acetate, tert-               | C6H12O2          | 540-88-5   | 2                 |                                |
| Butyl acrylate                     | C7H12O2          | 141-32-2   | 1.5               |                                |
| Butyl butyrate                     | C8H16O2          | 109-21-7   | 1.8               |                                |
| Butyl chloroformate                | C5H9ClO2         | 592-34-7   | 3.2               |                                |
| Butyl cyclohexan-1-ol, 4- tert-    | C10H20O          | 98-52-2    | 1.4               |                                |
| Butyl cyclohexyl acetate, 2- tert- | C12H22O2         | 88-41-5    | 0.8               |                                |
| Butyl ether, n-                    | C8H18O           | 142-96-1   | 0.7               |                                |
| Butyl glycidyl ether               | C7H14O2          | 2426-08-6  | 2                 |                                |
| Butyl iodide                       | C4H9I            | 542-69-8   | 1                 |                                |
| Butyl isocyanate                   | C5H9NO           | 111-36-4   | 2.5               |                                |
| Butyl lactate                      | C7H14O3          | 138-22-7   | 2.5               |                                |
| Butyl mercaptan                    | C4H10S           | 109-79-5   | 0.5               |                                |
| Butyl mercaptan, tert-             | C4H10S           | 75-66-1    | 0.4               |                                |
| Butyl methacrylate                 | C8H14O2          | 97-88-1    | 1                 |                                |
| Butyl propionate, n-               | C7H14O2          | 590-01-2   | 1.8               |                                |
| Butylamine, n-                     | C4H11N           | 109-73-9   | 1                 |                                |
| Butylamine, sec-                   | C4H11N           | 513-49-5   | 0.9               |                                |
| Butylamine, tert-                  | C4H11N           | 75-64-9    | 0.9               |                                |
| Butylbenzene                       | C10H14           | 104-51-8   | 0.5               | New added                      |
| Butylbenzene, sec-                 | C10H14           | 135-98-8   | 0.4               | New added                      |

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| Butylbenzene, tert-           | C10H14           | 98-06-6    | 0.4               |                                |
| Butylene carbonate, 1,2-      | C5H8O3           | 4437-85-8  | 2                 |                                |
| Butylphenol, o-sec-           | C10H14O          | 89-72-5    | 0.9               |                                |
| Butyn-1-ol, 2-                | C4H6O            | 764-01-2   | 1.5               |                                |
| Butyn-2-one                   | C4H4O            | 1423-60-5  | 3                 |                                |
| Butyraldehyde                 | C4H8O            | 123-72-8   | 1.6               |                                |
| Butyrolactone, gamma-         | C4H6O2           | 96-48-0    | 15                |                                |
| Butyryl chloride              | C4H7ClO          | 141-75-3   | 3                 |                                |
| <b>C</b>                      |                  |            |                   |                                |
| Camphene                      | C10H16           | 565-00-4   | 0.5               |                                |
| Camphor                       | C10H16O          | 76-22-2    | 0.4               |                                |
| Carbon disulfide              | CS2              | 75-15-0    | 1.4               |                                |
| Carbon suboxide               | C3O2             | 504-64-3   | 10                |                                |
| Carbon tetrabromide           | CBR4             | 558-13-4   | 3                 |                                |
| Carene                        | C10H16           | 13466-78-9 | 0.5               |                                |
| Carvacrol                     | C10H14O          | 499-75-2   | 0.8               | New added                      |
| Carvone, R-                   | C10H14O          | 6485-40-1  | 1                 |                                |
| Caryophyllene                 | C15H24           | 13877-93-5 | 0.4               |                                |
| Chloramine                    | ClH2N            | 10599-90-3 | 2                 |                                |
| Chloro-1,1-difluoroethene, 2- | C2HClF2          | 359-10-4   | 1.5               |                                |
| Chloro-2-propanone, 1-        | C3H5ClO          | 78-95-5    | 1                 |                                |
| Chloroacetaldehyde            | C2H3ClO          | 107-20-0   | 3                 |                                |
| Chlorobenzene                 | C6H5Cl           | 108-90-7   | 0.36              |                                |
| Chlorobutane, 1-              | C4H9Cl           | 109-69-3   | 10                |                                |
| Chlorobutane, 2-              | C4H9Cl           | 78-86-4    | 8                 |                                |
| Chlorocyclohexane             | C6H11Cl          | 542-18-7   | 4                 |                                |
| Chloroethyl methyl ether, 2-  | C3H7ClO          | 627-42-9   | 2.6               |                                |
| Chloromethoxyethane           | C3H7ClO          | 3188-13-4  | 4                 |                                |
| Chloroprene                   | C4H5Cl           | 126-99-8   | 1.3               |                                |
| Chloropyridine, 2-            | C5H4ClN          | 109-09-1   | 1                 |                                |
| Chlorostyrene, o-             | C8H7Cl           | 2039-87-4  | 0.4               |                                |
| Chlorotoluene, m-             | C7H7Cl           | 108-41-8   | 0.5               |                                |
| Chlorotoluene, o-             | C7H7Cl           | 95-49-8    | 0.5               |                                |
| Chlorotoluene, p-             | C7H7Cl           | 106-43-4   | 0.39              |                                |
| Chlorotrifluoroethylene       | C2ClF3           | 79-38-9    | 1                 |                                |
| Cinnamic aldehyde             | C9H8O            | 104-55-2   | 0.4               | Formula is modified from C8H8O |
| Cinnamyl acetate              | C11H12O2         | 21040-45-9 | 0.4               |                                |
| Cinnamyl alcohol              | C9H10O           | 104-54-1   | 0.4               |                                |
| Citral                        | C10H16O          | 5392-40-5  | 1                 |                                |
| Citronellal                   | C10H18O          | 106-23-0   | 0.9               |                                |
| Citronellol                   | C10H20O          | 26489-01-0 | 1                 |                                |
| Citronellol acetate           | C12H22O2         | 150-84-5   | 1.5               |                                |
| Citronellol formate           | C11H20O2         | 105-85-1   | 1.5               |                                |
| Citronellyl isobutyrate       | C14H26O2         | 97-89-2    | 0.9               |                                |
| Coumarin                      | C9H6O2           | 91-64-5    | 0.4               |                                |
| Creosote                      |                  | 8021-39-4  | 1.0               | New added                      |
| Cresol, m-                    | C7H8O            | 108-39-4   | 2.2               |                                |
| Cresol, o-                    | C7H8O            | 95-48-7    | 1.1               |                                |
| Cresol, p-                    | C7H8O            | 106-44-5   | 1.1               |                                |
| Cresyl acetate, p-            | C9H10O2          | 140-39-6   | 1                 |                                |
| Cresyl ethyl ether, p-        | C9H12O           | 622-60-6   | 0.8               |                                |
| Cresyl methyl ether           | C8H10O           | 104-93-8   | 0.8               |                                |
| Crotonaldehyde                | C4H6O            | 4170-30-3  | 1                 |                                |
| Crotonyl alcohol              | C4H8O            | 6117-91-5  | 0.8               | New added                      |

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|------------------------------------|------------------|------------|-------------------|--------------------------------------|
| Cumene                             | C9H12            | 98-82-8    | 0.32              |                                      |
| Cycloalkanes                       |                  |            | 1.5               |                                      |
| Cyclobutanone                      | C4H6O            | 1191-95-3  | 1.2               |                                      |
| Cyclobutene                        | C4H6             | 822-35-5   | 3                 |                                      |
| Cycloheptane                       | C7H14            | 291-64-5   | 1.1               |                                      |
| Cyclohex-2-enedione, 1,4-          | C6H6O2           | 4505-38-8  | 1                 |                                      |
| Cyclohexane                        | C6H12            | 110-82-7   | 1.2               |                                      |
| Cyclohexanethiol                   | C6H12S           | 1569-69-3  | 0.5               |                                      |
| Cyclohexanol                       | C6H12O           | 108-93-0   | 2.9               |                                      |
| Cyclohexanone                      | C6H10O           | 108-94-1   | 1.1               |                                      |
| Cyclohexene                        | C6H10            | 110-83-8   | 0.8               |                                      |
| Cyclohexyl acetate                 | C8H14O2          | 622-45-7   | 1.2               |                                      |
| Cyclohexylamine                    | C6H13N           | 108-91-8   | 1                 |                                      |
| Cyclooctadiene                     | C8H12            | 29965-97-7 | 1                 |                                      |
| Cyclopentadiene                    | C5H6             | 542-92-7   | 0.8               |                                      |
| Cyclopentane                       | C5H10            | 287-92-3   | 12.0              | Conversion factor is modified from 4 |
| Cyclopentanone                     | C5H8O            | 120-92-3   | 0.7               |                                      |
| Cyclopentene                       | C5H8             | 142-29-0   | 1.5               |                                      |
| Cyclopentene-1,3-dione, 4-         | C5H4O2           | 930-60-9   | 1                 |                                      |
| Cyclopropylamine                   | C3H7N            | 765-30-0   | 0.8               | New added                            |
| Cymene, p-                         | C10H14           | 99-87-6    | 0.35              |                                      |
| <b>D</b>                           |                  |            |                   |                                      |
| Decahydronaphthalene               | C10H18           | 91-17-8    | 0.9               |                                      |
| Decanal                            | C10H20O          | 112-31-2   | 0.9               |                                      |
| Decane                             | C10H22           | 124-18-5   | 0.9               |                                      |
| Decyne, 1-                         | C10H18           | 764-93-2   | 1.3               |                                      |
| Diacetone alcohol                  | C6H12O2          | 123-42-2   | 0.8               |                                      |
| Diazine, 1,2-                      | C4H4N2           | 289-80-5   | 3                 |                                      |
| Diazine, 1,3-                      | C4H4N2           | 289-95-2   | 3                 |                                      |
| Dibromoacetylene                   | C2Br2            | 624-61-3   | 1.5               |                                      |
| Dibromochloromethane               | CHBr2Cl          | 124-48-1   | 10                |                                      |
| Dibromocyclohexane, 1,2-           | C6H10Br2         | 5401-62-7  | 3                 |                                      |
| Dibromocyclopentane                | C5H8Br2          | 33547-17-0 | 3                 |                                      |
| Dibromodichloromethane             | CBr2Cl2          | 594-18-3   | 4                 |                                      |
| Dibromoethane, 1,2-                | C2H4Br2          | 106-93-4   | 2                 |                                      |
| Dibromoethene, 1,1-                | C2H2Br2          | 593-92-0   | 1.5               |                                      |
| Dibromoethene, 1,2-                | C2H2Br2          | 540-49-8   | 1.5               |                                      |
| Dibromomethane                     | CH2Br2           | 74-95-3    | 1.2               |                                      |
| Dichloro-1,2-difluoroethene, 1,2-  | C2Cl2F2          | 598-88-9   | 2                 |                                      |
| Dichloro-1-propene, 2,3-           | C3H4Cl2          | 78-88-6    | 1.4               |                                      |
| Dichloro-2,2,-difluoroethene, 1,1- | C2Cl2F2          | 79-35-6    | 1                 |                                      |
| Dichloroacetylene                  | C2Cl2            | 7572-29-4  | 5                 |                                      |
| Dichlorobenzene, o-                | C6H4Cl2          | 95-50-1    | 0.5               |                                      |
| Dichlorobenzene, p-                | C6H4Cl2          | 106-46-7   | 0.5               |                                      |
| Dichloroethene, 1,1-               | C2H2Cl2          | 75-35-4    | 1                 |                                      |
| Dichloroethene, 1,2-               | C2H2Cl2          | 540-59-0   | 0.36              |                                      |
| Dichloroethene, cis-1,2-           | C2H2Cl2          | 156-59-2   | 0.8               |                                      |
| Dichloroethene, trans-1,2-         | C2H2Cl2          | 156-60-5   | 0.36              |                                      |
| Dichloromethane                    | CH2Cl2           | 75-09-2    | 39                |                                      |
| Dichloromethylamine                | CH3Cl2N          | 7651-91-4  | 2                 |                                      |
| Dicyclohexylamine                  | C12H23N          | 101-83-7   | 0.8               |                                      |
| Dicyclopentadiene                  | C10H12           | 77-73-6    | 0.9               |                                      |
| Diesel fuel                        |                  | 68334-30-5 | 0.8               |                                      |
| Diethoxyethane, 1,1-               | C6H14O2          | 105-57-7   | 0.9               | New added                            |

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| Diethyl carbonate                 | C5H10O3          | 105-58-8   | 1.5               | Conversion factor is modified from 2  |
| Diethyl ether                     | C4H10O           | 60-29-7    | 0.9               |                                       |
| Diethyl maleate                   | C8H12O4          | 141-05-9   | 2                 |                                       |
| Diethyl malonate                  | C7H12O4          | 105-53-3   | 4.0               | New added                             |
| Diethyl phthalate                 | C12H14O4         | 84-66-2    | 1                 |                                       |
| Diethyl sulfate                   | C4H10SO4         | 64-67-5    | 3                 |                                       |
| Diethyl sulfide                   | C4H10S           | 352-93-2   | 0.6               |                                       |
| Diethyl sulfone                   | C4H10O2S         | 597-35-3   | 2                 |                                       |
| Diethylacetylene                  | C6H10            | 928-49-4   | 2                 |                                       |
| Diethylaminopropylamine, 3-       | C7H18N2          | 104-78-9   | 1.2               |                                       |
| Diethylene glycol monoethyl ether | C6H14O3          | 111-90-0   | 0.6               | New added                             |
| Diethylenetriamine                | C4H13N3          | 111-40-0   | 0.9               |                                       |
| Diethylhydroxylamine              | C4H11NO          | 3710-84-7  | 2                 |                                       |
| Diethylsilane                     | C4H12Si          | 542-91-6   | 2                 |                                       |
| Diglycidyl ether                  | C6H10O3          | 2238-07-5  | 3                 |                                       |
| Dihydroeugenol                    | C10H14O2         | 2785-87-7  | 0.4               |                                       |
| Dihydrojasnone                    | C11H18O          | 1128-08-1  | 0.6               |                                       |
| Dihydromyrcenol                   | C10H20O          | 18479-58-8 | 0.8               |                                       |
| Dihydroxybenzene, 1,2-            | C6H6O2           | 120-80-9   | 1                 |                                       |
| Dihydroxybenzene, 1,3-            | C6H6O2           | 108-46-3   | 1                 |                                       |
| Diiodomethane                     | CH2I2            | 75-11-6    | 1.2               |                                       |
| Diisobutyl ketone                 | C9H18O           | 108-83-8   | 0.8               |                                       |
| Diisobutylene                     | C8H16            | 107-39-1   | 0.6               |                                       |
| Diisopropyl ether                 | C6H14O           | 108-20-3   | 0.7               |                                       |
| Diisopropylbenzene                | C12H18           | 25321-09-9 | 0.4               |                                       |
| Diketene                          | C4H4O2           | 674-82-8   | 2.2               |                                       |
| Dimethoxybenzene, 1,4-            | C8H10O2          | 150-78-7   | 1.3               |                                       |
| Dimethoxyethane, 1,2-             | C4H10O2          | 110-71-4   | 1.2               | Conversion factor is modified from 1. |
| Dimethoxymethane                  | C3H8O2           | 109-87-5   | 1.4               |                                       |
| Dimethyl carbonate                | C3H6O3           | 616-38-6   | 2.0               | New added                             |
| Dimethyl disulfide                | C2H6S2           | 624-92-0   | 0.2               |                                       |
| Dimethyl ether                    | C2H6O            | 115-10-6   | 1.3               |                                       |
| Dimethyl phthalate                | C10H10O4         | 131-11-3   | 1                 |                                       |
| Dimethyl sulfoxide                | C2H6OS           | 67-68-5    | 1                 |                                       |
| Dimethylacetamide N,N-            | C4H9NO           | 127-19-5   | 1.3               |                                       |
| Dimethylacetylene                 | C4H6             | 503-17-3   | 1                 |                                       |
| Dimethylaminoethanol, 2-          | C4H11NO          | 108-01-0   | 1.5               |                                       |
| Dimethylaniline, NN-              | C8H11N           | 121-69-7   | 0.6               |                                       |
| Dimethylboron bromide             | C2H6BBr          | 5158-50-9  | 4                 |                                       |
| Dimethylbutyl acetate             | C8H16O2          | 108-84-9   | 1.6               |                                       |
| Dimethylcycloheptane, 1,2-        | C9H18            | 13151-50-3 | 1.3               |                                       |
| Dimethylcyclohexane, 1,2-         | C8H16            | 583-57-3   | 0.8               |                                       |
| Dimethylcyclopentane              | C7H14            | 1192-18-3  | 1.2               | New added                             |
| Dimethylethylamine, NN-           | C4H11N           | 598-56-1   | 3                 |                                       |
| Dimethylformamide                 | C3H7NO           | 68-12-2    | 0.8               |                                       |
| Dimethylhydrazine, 1,1-           | C2H8N2           | 57-14-7    | 1                 |                                       |
| Dimethyloctan-1-ol, 3,7-          | C10H22O          | 106-21-8   | 1.2               |                                       |
| Dimethyloctan-3-ol, 3,7-          | C10H22O          | 78-69-3    | 1.2               |                                       |
| Dimethylpentane, 2,4-             | C7H16            | 108-08-7   | 1.0               |                                       |
| Dimethylsilane                    | C2H8Si           | 1111-74-6  | 2                 |                                       |
| Dimethylthiophosphoryl chloride   | C2H6ClO2PS       | 2524-03-0  | 1                 |                                       |
| Di-n-butylamine                   | C8H19N           | 111-92-2   | 0.9               |                                       |
| Di-n-propylamine                  | C6H15N           | 142-84-7   | 1                 |                                       |
| Dioxane, 1,4-                     | C4H8O2           | 123-91-1   | 1.5               |                                       |

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| Gas name                          | Chemical formula | CAS No.    | Conversion factor | Comment                              |
|-----------------------------------|------------------|------------|-------------------|--------------------------------------|
| Dioxolane                         | C3H6O2           | 646-06-0   | 1.8               |                                      |
| Dipentene                         | C10H16           | 138-86-3   | 0.9               |                                      |
| Diphenyl ether                    | C12H10O          | 101-84-8   | 0.8               |                                      |
| Dipropyl ether                    | C6H14O           | 111-43-3   | 0.8               |                                      |
| Dipropylene glycol                | C6H14O3          | 110-98-5   | 4                 |                                      |
| Disilane                          | Si2H6            | 1590-87-0  | 2                 |                                      |
| Disulfur dibromide                | Br2S2            | 13172-31-1 | 1.5               |                                      |
| Di-tert-butyl-p-cresol            | C15H24O          | 128-37-0   | 0.3               |                                      |
| Divinylbenzene                    | C10H10           | 1321-74-0  | 0.4               |                                      |
| Divinylbenzene, 1,3-              | C10H10           | 108-57-6   | 0.3               | New added                            |
| Dodecene                          | C12H26           | 112-40-3   | 0.8               |                                      |
| <b>E</b>                          |                  |            |                   |                                      |
| Epichlorohydrin                   | C3H5ClO          | 106-89-8   | 3.4               |                                      |
| Epoxypropyl isopropyl ether, 2,3- | C6H12O2          | 4016-14-2  | 1.1               |                                      |
| Estagole                          | C10H12O          | 140-67-0   | 0.7               |                                      |
| Ethanol                           | C2H6O            | 64-17-5    | 8.7               |                                      |
| Ethanolamine                      | C2H7NO           | 141-43-5   | 3                 |                                      |
| Ethoxy-2-methylpropane, 1-        | C6H14O           | 627-02-1   | 0.8               |                                      |
| Ethoxy-2-propanol, 1-             | C5H12O2          | 1569-02-4  | 2                 |                                      |
| Ethoxy-butane, 2-                 | C6H14O           | 19316-73-5 | 0.8               |                                      |
| Ethoxyethanol, 2-                 | C4H10O2          | 110-80-5   | 2                 |                                      |
| Ethoxyethyl acetate, 2-           | C6H12O3          | 111-15-9   | 3                 |                                      |
| Ethyl 2,2,2-trifluoroethyl ether  | C4H7F3O          | 461-24-5   | 5                 |                                      |
| Ethyl 2-methylbutyrate            | C7H14O2          | 7452-79-1  | 2                 |                                      |
| Ethyl acetate                     | C4H8O2           | 141-78-6   | 3.6               |                                      |
| Ethyl acetoacetate                | C6H10O3          | 141-97-9   | 3                 |                                      |
| Ethyl acrylate                    | C5H8O2           | 140-88-5   | 2                 |                                      |
| Ethyl benzoate                    | C9H10O2          | 93-89-0    | 0.9               |                                      |
| Ethyl butyrate                    | C6H12O2          | 105-54-4   | 1                 |                                      |
| Ethyl chloroformate               | C3H5O2Cl         | 541-41-3   | 83                |                                      |
| Ethyl cyanoacrylate               | C6H7O2N          | 7085-85-0  | 1.5               |                                      |
| Ethyl decanoate                   | C12H24O2         | 110-38-3   | 1.8               |                                      |
| Ethyl formate                     | C3H6O2           | 109-94-4   | 29.8              |                                      |
| Ethyl hexanoate                   | C8H16O2          | 123-66-0   | 2.6               |                                      |
| Ethyl hexanol, 2-                 | C8H18O           | 104-76-7   | 1.5               |                                      |
| Ethyl hexyl acrylate, 2-          | C11H20O2         | 103-11-7   | 1                 |                                      |
| Ethyl iodide                      | C2H5I            | 75-03-6    | 1.2               |                                      |
| Ethyl isopropyl ketone            | C6H12O           | 565-69-5   | 0.8               |                                      |
| Ethyl lactate                     | C5H10O3          | 97-64-3    | 3                 |                                      |
| Ethyl mercaptan                   | C2H6S            | 75-08-1    | 0.56              |                                      |
| Ethyl methacrylate                | C6H10O2          | 97-63-2    | 1.5               |                                      |
| Ethyl methyl carbonate            | C4H8O3           | 623-53-0   | 1.5               | New added                            |
| Ethyl morpholine, 4-              | C6H13NO          | 100-74-3   | 0.6               |                                      |
| Ethyl octanoate                   | C10H20O2         | 106-32-1   | 2.3               |                                      |
| Ethyl phenyl acetate              | C10H12O2         | 101-97-3   | 1.2               |                                      |
| Ethyl propanoate                  | C5H10O2          | 105-37-3   | 2                 |                                      |
| Ethyl tert-butyl ether            | C6H14O           | 637-92-3   | 0.6               |                                      |
| Ethyl-2-methyl benzene, 1-        | C9H12            | 611-14-3   | 0.45              | onversion factor is modified from 0. |
| Ethyl-3-ethoxypropionate          | C7H14O3          | 763-69-9   | 3                 |                                      |
| Ethylacetylene                    | C4H6             | 107-00-6   | 3                 |                                      |
| Ethylamine                        | C2H7N            | 75-04-7    | 1                 |                                      |
| Ethylbenzene                      | C8H10            | 100-41-4   | 0.5               |                                      |
| Ethylcyclohexane                  | C8H16            | 1678-91-7  | 1                 |                                      |
| Ethylene                          | C2H4             | 74-85-1    | 8                 |                                      |

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| Gas name                           | Chemical formula | CAS No.    | Conversion factor | Comment                           |
|------------------------------------|------------------|------------|-------------------|-----------------------------------|
| Ethylene carbonate                 | C3H4O3           | 96-49-1    | 3                 |                                   |
| Ethylene glycol                    | C2H6O2           | 107-21-1   | 20                |                                   |
| Ethylene glycol diacetate          | C6H10O4          | 111-55-7   | 4                 |                                   |
| Ethylene glycol monopropyl ether   | C5H12O2          | 2807-30-9  | 3                 |                                   |
| Ethylene oxide                     | C2H4O            | 75-21-8    | 15                |                                   |
| Ethylenediamine                    | C2H8N2           | 107-15-3   | 0.8               |                                   |
| Ethyleneimine                      | C2H5N            | 151-56-4   | 2                 |                                   |
| Ethylhexanal, 2-                   | C8H16O           | 123-05-7   | 1.5               |                                   |
| Ethylhexanoic acid, 2-             | C8H16O2          | 149-57-5   | 2.0               | New added                         |
| Ethylhexenal, 2-                   | C8H14O           | 645-62-5   | 1.3               |                                   |
| Eucalyptol                         | C10H18O          | 470-82-6   | 0.6               |                                   |
| Eugenol                            | C10H12O2         | 97-53-0    | 0.4               |                                   |
| Eugenol methyl ether               | C11H14O2         | 93-15-2    | 0.4               |                                   |
| <b>F</b>                           |                  |            |                   |                                   |
| Fenchol                            | C10H18O          | 1632-73-1  | 0.4               |                                   |
| Ferrocene                          | C10H10Fe         | 102-54-5   | 0.8               |                                   |
| Fluorobenzene                      | C6H5F            | 462-06-6   | 0.8               |                                   |
| Fluorobenzoic acid, 4-             | C7H5FO2          | 456-22-4   | 2                 |                                   |
| Formamide                          | CH3ON            | 75-12-7    | 2                 |                                   |
| Furan                              | C4H4O            | 110-00-9   | 0.4               | New added                         |
| Furfural                           | C5H4O2           | 98-01-1    | 0.82              |                                   |
| Furfuryl alcohol                   | C5H6O2           | 98-00-0    | 2                 |                                   |
| Furfuryl mercaptan                 | C5H6OS           | 98-02-2    | 0.5               |                                   |
| <b>G</b>                           |                  |            |                   |                                   |
| Gasoline                           |                  | 8006-61-9  | 0.8               |                                   |
| Geranial                           | C10H16O          | 141-27-5   | 0.6               |                                   |
| Geraniol                           | C10H18O          | 106-24-1   | 0.7               |                                   |
| Geranyl acetate                    | C12H20O2         | 105-87-3   | 1.2               |                                   |
| Germane                            | GeH4             | 7782-65-2  | 10                |                                   |
| Glutaraldehyde                     | C5H8O2           | 111-30-8   | 0.9               |                                   |
| Glycidyl methacrylate              | C7H10O3          | 106-91-2   | 1.2               |                                   |
| Glycolaldehyde                     | C2H4O2           | 141-46-8   | 5.0               | New added                         |
| Glyoxal                            | C2H2O2           | 107-22-2   | 1                 |                                   |
| Guaiacol                           | C7H8O2           | 90-05-1    | 0.8               | New added                         |
| <b>H</b>                           |                  |            |                   |                                   |
| Heptan-2-one                       | C7H14O           | 110-43-0   | 0.7               |                                   |
| Heptan-3-one                       | C7H14O           | 106-35-4   | 0.8               |                                   |
| Heptane                            | C7H16            | 142-82-5   | 1.6               |                                   |
| Heptanol                           | C7H16O           | 53535-33-4 | 1.7               |                                   |
| Heptene, 1-                        | C7H14            | 592-76-7   | 0.9               |                                   |
| Heptylcyclopentan-1-one, 2-        | C12H22O          | 137-03-1   | 0.8               |                                   |
| Heptyne, 1-                        | C7H12            | 628-71-7   | 2                 |                                   |
| Hex-1-en-3-ol                      | C6H12O           | 4798-44-1  | 0.9               |                                   |
| Hexachlorodisilane                 | Cl6Si2           | 13465-77-5 | 8                 |                                   |
| Hexamethyldisilazane, 1,1,1,3,3,3- | C6H19NSi2        | 999-97-3   | 1                 | ormula is modified from C6H18NSi2 |
| Hexamethyldisiloxane               | C6H18OSi2        | 107-46-0   | 0.3               |                                   |
| Hexamethylene diisocyanate         | C8H12N2O2        | 822-06-0   | 1.5               |                                   |
| Hexan-2-one                        | C6H12O           | 591-78-6   | 0.8               |                                   |
| Hexane                             | C6H14            | 110-54-3   | 2.6               |                                   |
| Hexanoic acid                      | C6H12O2          | 142-62-1   | 3                 |                                   |
| Hexanol                            | C6H14O           | 111-27-3   | 2                 |                                   |
| Hexene, 1-                         | C6H12            | 592-41-6   | 0.9               |                                   |
| Hexenyl acetate, cis-3-            | C8H14O2          | 3681-71-8  | 1.5               |                                   |
| Hexenyl butyrate, cis-3-           | C10H18O2         | 16491-36-4 | 1.5               |                                   |

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| Gas name                   | Chemical formula | CAS No.    | Conversion factor | Comment                              |
|----------------------------|------------------|------------|-------------------|--------------------------------------|
| Hexylaldehyde              | C6H12O           | 66-25-1    | 0.6               |                                      |
| Hydrazine                  | H4N2             | 302-01-2   | 3                 |                                      |
| Hydrogen iodide            | HI               | 10034-85-2 | 5                 |                                      |
| Hydrogen selenide          | H2Se             | 7783-07-5  | 2                 |                                      |
| Hydrogen sulfide           | H2S              | 7783-06-4  | 4                 |                                      |
| Hydrogen telluride         | H2Te             | 7783-09-7  | 1.5               |                                      |
| Hydroxybutanal, 3-         | C4H8O2           | 107-89-1   | 2.0               | New added                            |
| Hydroxycitronellal         | C10H20O2         | 107-75-5   | 1                 |                                      |
| Hydroxyethyl acrylate      | C5H8O3           | 818-61-1   | 1.2               |                                      |
| Hydroxylamine              | H3NO             | 7803-49-8  | 2                 |                                      |
| Hydroxypropyl acrylate, 2- | C6H10O3          | 999-61-1   | 1.5               |                                      |
| I                          |                  |            |                   |                                      |
| Indene                     | C9H8             | 95-13-6    | 0.5               |                                      |
| Indole                     | C8H7N            | 120-72-9   | 0.4               |                                      |
| Iodine                     | I2               | 7553-56-2  | 0.2               |                                      |
| Iodobenzene                | C6H5I            | 591-50-4   | 0.2               |                                      |
| Iodoethene                 | C2H3I            | 593-66-8   | 1.2               |                                      |
| Iodoform                   | CHI3             | 75-47-8    | 1.5               |                                      |
| Iodomethane                | CH3I             | 74-88-4    | 0.4               |                                      |
| Isoalkanes, C10-C13        |                  | 68551-17-7 | 1                 |                                      |
| Isoamyl acetate            | C7H14O2          | 123-92-2   | 1.6               |                                      |
| Isoamyl salicylate         | C12H16O3         | 87-20-7    | 1                 |                                      |
| Isoamylene                 | C5H10            | 513-35-9   | 1                 |                                      |
| Isobornyl acetate          | C12H20O2         | 125-12-2   | 0.4               |                                      |
| Isobutane                  | C4H10            | 75-28-5    | 8                 |                                      |
| Isobutanol                 | C4H10O           | 78-83-1    | 3.5               |                                      |
| Isobutyl acetate           | C6H12O2          | 110-19-0   | 2.3               |                                      |
| Isobutyl acrylate          | C7H12O2          | 106-63-8   | 1.3               |                                      |
| Isobutylbenzene            | C10H14           | 538-93-2   | 0.4               | New added                            |
| Isobutylene                | C4H8             | 115-11-7   | 1                 |                                      |
| Isobutylene epoxide        | C4H8O            | 558-30-5   | 3                 |                                      |
| Isobutyraldehyde           | C4H8O            | 78-84-2    | 1.2               |                                      |
| Isobutyric acid            | C4H8O2           | 79-31-2    | 4                 |                                      |
| Isodecanol                 | C10H22O          | 25339-17-7 | 0.9               |                                      |
| Isoeugenol                 | C10H12O2         | 97-54-1    | 0.4               |                                      |
| Isoheptane                 | C7H16            | 591-76-4   | 1.2               |                                      |
| Isojasmone                 | C11H18O          | 95-41-0    | 0.7               |                                      |
| Isomenthone                | C10H18O          | 1196-31-2  | 0.6               |                                      |
| Isononanal                 | C9H18O           | 5435-64-3  | 9.0               | New added                            |
| Isononanol                 | C9H20O           | 3452-97-9  | 1.5               |                                      |
| Isooctane                  | C8H18            | 565-75-3   | 0.74              |                                      |
| Isooctanol                 | C8H18O           | 26952-21-6 | 1.7               |                                      |
| Isopentane                 | C5H12            | 78-78-4    | 4.0               | Conversion factor is modified from 6 |
| Isopentene                 | C5H10            | 563-46-2   | 0.8               |                                      |
| Isophorone                 | C9H14O           | 78-59-1    | 0.8               |                                      |
| Isophorone diisocyanate    | C12H18N2O2       | 4098-71-9  | 0.6               |                                      |
| Isoprene                   | C5H8             | 78-79-5    | 0.8               |                                      |
| Isopropanol                | C3H8O            | 67-63-0    | 4.4               |                                      |
| Isopropanolamine           | C3H9NO           | 78-96-6    | 1.5               |                                      |
| Isopropoxyethanol, 2-      | C5H12O2          | 109-59-1   | 1.5               |                                      |
| Isopropyl acetate          | C5H10O2          | 108-21-4   | 2.2               |                                      |
| Isopropyl chloroformate    | C4H7O2Cl         | 108-23-6   | 1.6               |                                      |
| Isopropyl mercaptan        | C3H8S            | 75-33-2    | 0.56              |                                      |
| Isopropyl nitrite          | C3H7NO2          | 541-42-4   | 4                 |                                      |



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| Gas name                       | Chemical formula | CAS No.    | Conversion factor | Comment   |
|--------------------------------|------------------|------------|-------------------|-----------|
| Isopropylamine                 | C3H9N            | 75-31-0    | 1.2               |           |
| Isopropylaminoethanol, 2-      | C5H13NO          | 109-56-8   | 2                 |           |
| Isopropylcyclohexane           | C9H18            | 696-29-7   | 0.9               |           |
| Isothiazole                    | C3H3NS           | 288-16-4   | 3                 |           |
| Isovaleraldehyde               | C5H10O           | 590-86-3   | 1.3               | New added |
| Isovaleric acid                | C5H10O2          | 503-74-2   | 3.0               | New added |
| Isoxazole                      | C3H3NO           | 288-14-2   | 6                 |           |
| <b>J</b>                       |                  |            |                   |           |
| Jasmal                         | C11H22O3         | 1322-17-4  | 1.4               |           |
| Jasmone, cis-                  | C11H16O          | 488-10-8   | 0.5               |           |
| Jet Fuel JP-4                  |                  |            | 0.8               |           |
| Jet Fuel JP-5                  |                  |            | 0.7               |           |
| Jet Fuel JP-8                  |                  |            | 0.7               |           |
| <b>K</b>                       |                  |            |                   |           |
| Kerosene                       |                  | 8008-20-6  | 0.8               |           |
| Ketene                         | C2H2O            | 463-51-4   | 3                 |           |
| <b>L</b>                       |                  |            |                   |           |
| Linalool oxide                 | C10H18O2         | 14049-11-7 | 0.6               |           |
| Linalyl acetate                | C12H20O2         | 115-95-7   | 0.9               |           |
| <b>M</b>                       |                  |            |                   |           |
| Maleic anhydride               | C4H2O3           | 108-31-6   | 2                 |           |
| Menthol                        | C10H20O          | 1490-04-6  | 0.5               |           |
| Menthone                       | C10H18O          | 89-80-5    | 0.4               |           |
| Mercaptoacetic acid            | C2H4O2S          | 68-11-1    | 1                 |           |
| Metaldehyde                    | C8H16O4          | 108-62-3   | 2.0               | New added |
| Methacrylamide                 | C4H7NO           | 79-39-0    | 2.0               | New added |
| Methacrylic acid               | C4H6O2           | 79-41-4    | 2.3               |           |
| Methacrylonitrile              | C4H5N            | 126-98-7   | 5                 |           |
| Methanol                       | CH4O             | 67-56-1    | 200               |           |
| Methoxy-1-butanol, 3-          | C5H12O2          | 2517-43-3  | 3                 |           |
| Methoxy-1-propanol, 2-         | C4H10O2          | 1589-47-5  | 2                 |           |
| Methoxy-2,2-dimethylpropane    | C6H14O           | 1118-00-9  | 0.7               |           |
| Methoxybutyl acetate, 3-       | C7H14O3          | 4435-53-4  | 2                 |           |
| Methoxyethane                  | C3H8O            | 540-67-0   | 1.0               | New added |
| Methoxyethanol, 2-             | C3H8O2           | 109-86-4   | 2.7               |           |
| Methoxyethene                  | C3H6O            | 107-25-5   | 1                 |           |
| Methoxyethoxyethanol, 2-       | C5H12O3          | 111-77-3   | 1.4               |           |
| Methoxyethyl acetate           | C5H10O3          | 110-49-6   | 2.7               |           |
| Methoxyethyl ether, 2-         | C6H14O3          | 111-96-6   | 0.8               |           |
| Methoxymethylethoxy-2-propanol | C7H16O3          | 34590-94-8 | 1.3               |           |
| Methoxypropan-2-ol, 1-         | C4H10O2          | 107-98-2   | 2                 |           |
| Methoxypropane, 2-             | C4H10O           | 598-53-8   | 0.9               |           |
| Methoxypropyl acetate          | C6H12O3          | 108-65-6   | 1.2               |           |
| Methyl 2-methylpropanoate      | C5H10O2          | 547-63-7   | 2                 |           |
| Methyl acetate                 | C3H6O2           | 79-20-9    | 5.2               |           |
| Methyl acetoacetate            | C5H8O3           | 105-45-3   | 3                 |           |
| Methyl acrylate                | C4H6O2           | 96-33-3    | 3.4               |           |
| Methyl anthranilate            | C8H9NO2          | 134-20-3   | 0.4               |           |
| Methyl benzoate                | C8H8O2           | 93-58-3    | 1.2               |           |
| Methyl bromide                 | CH3Br            | 74-83-9    | 1.9               |           |
| Methyl dimethylacrylate        | C6H10O2          | 924-50-5   | 2.5               |           |
| Methyl ethyl ketone            | C4H8O            | 78-93-3    | 0.8               |           |
| Methyl ethyl ketone peroxides  | C8H18O6          | 1338-23-4  | 0.8               |           |
| Methyl heptyne carbonate       | C9H14O2          | 111-12-6   | 1.3               |           |

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Added gas

Updated part

| Gas name                         | Chemical formula | CAS No.    | Conversion factor | Comment   |
|----------------------------------|------------------|------------|-------------------|-----------|
| Methyl ionone                    | C14H22O          | 1335-46-2  | 0.4               |           |
| Methyl isobutyl ketone           | C6H12O           | 108-10-1   | 0.8               |           |
| Methyl isocyanate                | C2H3NO           | 624-83-9   | 5                 |           |
| Methyl isopropyl ketone          | C5H10O           | 563-80-4   | 0.8               |           |
| Methyl isothiocyanate            | C2H3NS           | 556-61-6   | 0.6               |           |
| Methyl mercaptan                 | CH4S             | 74-93-1    | 0.7               |           |
| Methyl methacrylate              | C5H8O2           | 80-62-6    | 1.6               |           |
| Methyl phenyl acetate            | C9H10O2          | 101-41-7   | 0.4               |           |
| Methyl propargyl ether           | C4H6O            | 627-41-8   | 2                 |           |
| Methyl propionate                | C4H8O2           | 554-12-1   | 1.5               |           |
| Methyl propynoate                | C4H4O2           | 922-67-8   | 10                |           |
| Methyl salicylate                | C8H8O3           | 119-36-8   | 0.8               |           |
| Methyl sulfide                   | C2H6S            | 75-18-3    | 0.5               |           |
| Methyl tert-butyl ether          | C5H12O           | 1634-04-4  | 0.8               |           |
| Methyl thiocyanate               | C2H3NS           | 556-64-9   | 2                 |           |
| Methyl thioglyconate             | C3H6O2S          | 2365-48-2  | 1                 |           |
| Methyl undecanal, 2-             | C12H24O          | 110-41-8   | 1.1               |           |
| Methyl vinyl ketone              | C4H6O            | 78-94-4    | 0.6               |           |
| Methyl-1-butene, 3-              | C5H10            | 563-45-1   | 0.8               |           |
| Methyl-2-butanol, 3-             | C5H12O           | 598-75-4   | 3.3               |           |
| Methyl-2-hexenoic acid, trans-3- | C7H12O2          | 27960-21-0 | 1.5               | New added |
| Methyl-2-propen-1-ol, 2-         | C4H8O            | 513-42-8   | 1.1               |           |
| Methyl-2-pyrrolidinone, N-       | C5H9NO           | 872-50-4   | 0.9               |           |
| Methyl-5-hepten-2-one, 6-        | C8H14O           | 110-93-0   | 0.8               |           |
| Methylamine                      | CH5N             | 74-89-5    | 1.4               |           |
| Methylbutan-1-ol, 3-             | C5H12O           | 123-51-3   | 3                 |           |
| Methylbutanal, 2-                | C5H10O           | 96-17-3    | 1.5               | New added |
| Methylbutanol                    | C5H12O           | 137-32-6   | 1.5               |           |
| Methylbutyric acid, 2-           | C5H10O2          | 116-53-0   | 3.5               | New added |
| Methylcyclohexane                | C7H14            | 108-87-2   | 1.1               |           |
| Methylcyclohexanol               | C7H14O           | 25639-42-3 | 2.4               |           |
| Methylcyclohexanol, 4-           | C7H14O           | 589-91-3   | 2.4               |           |
| Methylcyclohexanone, 2-          | C7H12O           | 583-60-8   | 1                 |           |
| Methylcyclopentane               | C6H12            | 96-37-7    | 1.5               |           |
| Methylenepentane, 3-             | C6H12            | 760-21-4   | 0.8               |           |
| Methylheptan-3-one, 5-           | C8H16O           | 541-85-5   | 0.8               |           |
| Methylhexan-2-one, 5-            | C7H14O           | 110-12-3   | 0.8               |           |
| Methylhydrazine                  | CH6N2            | 60-34-4    | 1.3               |           |
| Methylpent-3-en-2-one, 4-        | C6H10O           | 141-79-7   | 0.7               |           |
| Methylpentan-2-ol, 4-            | C6H14O           | 108-11-2   | 2.8               |           |
| Methylpentane, 2-                | C6H14            | 107-83-5   | 1.5               |           |
| Methylpentane, 3-                | C6H14            | 96-14-0    | 1.5               |           |
| Methylpentane-2,4-diol, 2-       | C6H14O2          | 107-41-5   | 4                 |           |
| Methylpropanoyl chloride, 2-     | C4H7ClO          | 79-30-1    | 6                 |           |
| Methylpyrrole, N-                | C5H7N            | 96-54-8    | 0.5               | New added |
| Methylstyrene                    | C9H10            | 25013-15-4 | 0.5               |           |
| Methylthiopropional, 3-          | C4H8OS           | 3268-49-3  | 2                 |           |
| Mineral oil                      |                  | 8042-47-5  | 0.8               |           |
| Mineral spirits                  |                  | 64475-85-0 | 0.8               |           |
| Monoisobutanolamine              | C4H11NO          | 124-68-5   | 1.6               |           |
| Morpholine                       | C4H9NO           | 110-91-8   | 2                 |           |
| Myrcene                          | C10H16           | 123-35-3   | 0.5               |           |
| N                                |                  |            |                   |           |
| Naphtha, hydrotrated heavy       | CnH(2n+2)        | 64742-48-9 | 1.0               | New added |

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Added gas

Updated part

| Gas name                     | Chemical formula | CAS No.    | Conversion factor | Comment                               |
|------------------------------|------------------|------------|-------------------|---------------------------------------|
| Naphthalene                  | C10H8            | 91-20-3    | 0.4               |                                       |
| Naphthol methyl ether, 2-    | C11H10O          | 93-04-9    | 0.5               |                                       |
| Neopentane                   | C5H12            | 463-82-1   | 3.0               | New added                             |
| Neopentyl alcohol            | C5H12O           | 75-84-3    | 2.0               | New added                             |
| Nitric oxide                 | NO               | 10102-43-9 | 8                 |                                       |
| Nitrobenzene                 | C6H5NO2          | 98-95-3    | 1.7               |                                       |
| Nitrogen dioxide             | NO2              | 10102-44-0 | 10                |                                       |
| N-Methylolacrylamide         | C4H7NO2          | 924-42-5   | 2.0               | New added                             |
| Nonane                       | C9H20            | 111-84-2   | 1.3               |                                       |
| Nonanol (mixed isomers)      | C9H20O           | 143-08-8   | 1.2               |                                       |
| Nonene (mixed isomers)       | C9H18            | 27215-95-8 | 0.8               |                                       |
| Nonene, 1-                   | C9H18            | 124-11-8   | 0.55              |                                       |
| Norbornadiene, 2,5-          | C7H8             | 121-46-0   | 0.6               |                                       |
| O                            |                  |            |                   |                                       |
| Octamethyltrisiloxane        | C8H24O2Si3       | 107-51-7   | 0.3               |                                       |
| Octane                       | C8H18            | 111-65-9   | 1.3               |                                       |
| Octanol (mixed isomers)      | C8H18O           | 111-87-5   | 1.5               |                                       |
| Octene (mixed isomers)       | C8H16            | 25377-83-7 | 0.9               |                                       |
| Octene, 1-                   | C8H16            | 111-66-0   | 0.58              |                                       |
| Oxalyl bromide               | C2Br2O2          | 15219-34-8 | 5                 |                                       |
| Oxydiethanol, 2,2-           | C4H10O3          | 111-46-6   | 2.0               | CAS No. is modified from 111-46-4     |
| P                            |                  |            |                   |                                       |
| Paraffin wax, fume           |                  | 8002-74-2  | 1                 |                                       |
| Paraffins, normal            |                  | 64771-72-8 | 1                 |                                       |
| Paraldehyde                  | C6H12O3          | 123-63-7   | 2.0               | New added                             |
| Pentacarbonyl iron           | FeC5O5           | 13463-40-6 | 1                 |                                       |
| Pentan-2-one                 | C5H10O           | 107-87-9   | 0.8               |                                       |
| Pentan-3-one                 | C5H10O           | 96-22-0    | 0.8               |                                       |
| Pentanal                     | C5H10O           | 110-62-3   | 1.2               |                                       |
| Pentandione, 2,4-            | C5H8O2           | 123-54-6   | 0.8               |                                       |
| Pentane                      | C5H12            | 109-66-0   | 5                 |                                       |
| Pentanoic acid               | C5H10O2          | 109-52-4   | 4                 |                                       |
| Pentanol, 2-                 | C5H12O           | 6032-29-7  | 1.5               |                                       |
| Pentanol, 3-                 | C5H12O           | 584-02-1   | 1.5               |                                       |
| Pentene, 1-                  | C5H10            | 109-67-1   | 1.3               |                                       |
| Pentylcyclopentan-1-one, 2-  | C10H18O          | 4819-67-4  | 1                 |                                       |
| Pentylcyclopentane           | C10H20           | 3741-00-2  | 1.1               |                                       |
| Pentyne, 1-                  | C5H8             | 627-19-0   | 3                 |                                       |
| Peracetic acid               | C2H4O3           | 79-21-0    | 2                 |                                       |
| Perfluorobutadiene           | C4F6             | 685-63-2   | 3                 | conversion factor is modified from 10 |
| Perfluoro-tert-butylamine    | C4H2F9N          | 2809-92-9  | 5                 |                                       |
| Petroleum ether              |                  | 8032-32-4  | 0.9               |                                       |
| Phellandrene                 | C10H16           | 99-83-2    | 0.8               |                                       |
| Phenethyl methyl ether, 2-   | C9H12O           | 3558-60-9  | 0.6               |                                       |
| Phenol                       | C6H6O            | 108-95-2   | 1.2               |                                       |
| Phenoxyethanol, 2-           | C8H10O2          | 122-99-6   | 0.5               | New added                             |
| Phenyl chloroformate         | C7H5ClO2         | 1885-14-9  | 1.1               | New added                             |
| Phenyl ethyl isobutyrate, 2- | C12H16O2         | 103-48-0   | 1.5               |                                       |
| Phenyl propene, 2-           | C9H10            | 98-83-9    | 0.4               |                                       |
| Phenyl-2,3-epoxypropyl ether | C9H10O2          | 122-60-1   | 0.8               |                                       |
| Phenylacetaldehyde           | C8H8O            | 122-78-1   | 0.7               |                                       |
| Phenylacetic acid            | C8H8O2           | 103-82-2   | 1                 |                                       |
| Phenylcyclohexane            | C12H16           | 827-52-1   | 0.4               | New added                             |
| Phenylethyl acetate, 1-      | C10H12O2         | 93-92-5    | 0.7               |                                       |

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Added gas

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| Gas name                             | Chemical formula | CAS No.    | Conversion factor | Comment                          |
|--------------------------------------|------------------|------------|-------------------|----------------------------------|
| Phenylethyl alcohol, 2-              | C8H10O           | 60-12-8    | 1.2               |                                  |
| Phosphine                            | PH3              | 7803-51-2  | 2                 |                                  |
| Picoline, 3-                         | C6H7N            | 108-99-6   | 0.9               |                                  |
| Pine oil                             |                  | 8002-09-3  | 1                 |                                  |
| Pinene, $\alpha$ -                   | C10H16           | 80-56-8    | 0.27              |                                  |
| Pinene, $\beta$ -                    | C10H16           | 127-91-3   | 0.27              |                                  |
| Piperazine                           | C4H10N2          | 110-85-0   | 0.8               |                                  |
| Piperidine                           | C5H11N           | 110-89-4   | 0.9               |                                  |
| Piperylene                           | C5H8             | 504-60-9   | 0.7               |                                  |
| Prop-2-yn-1-ol                       | C3H4O            | 107-19-7   | 2.9               |                                  |
| Propadiene                           | C3H4             | 463-49-0   | 1                 |                                  |
| Propan-1-ol                          | C3H8O            | 71-23-8    | 4.8               |                                  |
| Propanamide                          | C3H7NO           | 79-05-0    | 2                 | Formula is modified from C3H7NO2 |
| Propane-1,2-diol                     | C3H8O2           | 57-55-6    | 3                 |                                  |
| Propanolamine                        | C3H9NO           | 156-87-6   | 1.5               |                                  |
| Propargyl chloride                   | C3H3Cl           | 624-65-7   | 2                 |                                  |
| Propen-1-imine, 2-                   | C3H5N            | 73311-40-7 | 2                 |                                  |
| Propene                              | C3H6             | 115-07-1   | 1.4               |                                  |
| Propiolic acid                       | C3H2O2           | 471-25-0   | 8                 |                                  |
| Propionaldehyde                      | C3H6O            | 123-38-6   | 1.7               |                                  |
| Propionic acid                       | C3H6O2           | 79-09-4    | 8                 |                                  |
| Propoxy-2-propanol, 1-               | C6H14O2          | 1569-01-3  | 1.1               |                                  |
| Propyl acetate, n-                   | C5H10O2          | 109-60-4   | 2.5               |                                  |
| Propyl benzene                       | C9H12            | 103-65-1   | 0.5               | New added                        |
| Propyl butanoate                     | C7H14O2          | 105-66-8   | 2.3               |                                  |
| Propyl formate                       | C4H8O2           | 110-74-7   | 10                |                                  |
| Propyl iodide                        | C3H7I            | 107-08-4   | 1                 |                                  |
| Propylamine, n-                      | C3H9N            | 107-10-8   | 1                 |                                  |
| Propylbenzene (all isomers)          | C9H12            | 74296-31-4 | 0.45              |                                  |
| Propylene carbonate                  | C4H6O3           | 108-32-7   | 2                 |                                  |
| Propylene glycol ethyl ether acetate | C7H14O3          | 98516-30-4 | 1.2               |                                  |
| Propylene oxide                      | C3H6O            | 75-56-9    | 2.7               |                                  |
| Propyleneimine                       | C3H7N            | 75-55-8    | 1.3               |                                  |
| Propyne                              | C3H4             | 74-99-7    | 4                 |                                  |
| Pyrazine                             | C4H4N2           | 290-37-9   | 3                 |                                  |
| Pyridine                             | C5H5N            | 110-86-1   | 0.8               |                                  |
| Pyridinol, 4-                        | C5H5NO           | 626-64-2   | 3                 |                                  |
| Pyridylamine, 2-                     | C5H6N2           | 504-29-0   | 0.8               |                                  |
| Pyrrole                              | C4H5N            | 109-97-7   | 0.6               | New added                        |
| Pyrrolidine                          | C4H9N            | 123-75-1   | 0.4               | New added                        |
| Pyruvaldehyde                        | C3H4O2           | 78-98-8    | 0.7               | New added                        |
| R                                    |                  |            |                   |                                  |
| Rose oxide, cis-                     | C10H18O          | 16409-43-1 | 0.8               |                                  |
| S                                    |                  |            |                   |                                  |
| Sec-amyl acetate                     | C7H14O2          | 626-38-0   | 2                 |                                  |
| Stibine                              | SbH3             | 7803-52-3  | 1.5               |                                  |
| Styrene                              | C8H8             | 100-42-5   | 0.35              |                                  |
| T                                    |                  |            |                   |                                  |
| Terpineol, $\alpha$ -                | C10H18O          | 98-55-5    | 0.8               |                                  |
| Terpinolene                          | C10H16           | 586-62-9   | 0.59              |                                  |
| Terpinyl acetate, $\alpha$ -         | C12H20O2         | 80-26-2    | 1.2               |                                  |
| Tert-amyl methyl ether               | C6H14O           | 994-05-8   | 0.8               |                                  |
| Tert-butanol                         | C4H10O           | 75-65-0    | 2.6               |                                  |
| Tert-butyl bromide                   | C4H9Br           | 507-19-7   | 1.5               |                                  |

## GX-6000 PID gas list

Added gas

Updated part

| Gas name                            | Chemical formula | CAS No.    | Conversion factor | Comment                              |
|-------------------------------------|------------------|------------|-------------------|--------------------------------------|
| Tert-butyl formate                  | C5H10O2          | 762-75-4   | 8                 |                                      |
| Tetrabromoethane, 1,1,2,2-          | C2H2Br4          | 79-27-6    | 2                 |                                      |
| Tetracarbonylnickel                 | NiC4O4           | 13463-39-3 | 1                 |                                      |
| Tetrachloroethylene                 | C2Cl4            | 127-18-4   | 0.44              |                                      |
| Tetrachloropyridine, 2,3,5,6-       | C5HCl4N          | 2402-79-1  | 1                 |                                      |
| Tetraethyl orthosilicate            | C8H20O4Si        | 78-10-4    | 2                 |                                      |
| Tetrafluoroethylene                 | C2F4             | 116-14-3   | 15                |                                      |
| Tetrahydrofuran                     | C4H8O            | 109-99-9   | 0.8               | onversion factor is modified from 1. |
| Tetrahydronaphthalene               | C10H12           | 119-64-2   | 0.4               |                                      |
| Tetrahydropyran                     | C5H10O           | 142-68-7   | 3                 |                                      |
| Tetrahydrothiophene                 | C4H8S            | 110-01-0   | 0.6               |                                      |
| Tetramethyl orthosilicate           | C4H12O4Si        | 681-84-5   | 2.0               | New added                            |
| Tetramethyl succinonitrile          | C8H12N2          | 3333-52-6  | 1                 |                                      |
| Tetramethylbenzene (all isomers)    | C10H14           | 95-93-2    | 0.3               |                                      |
| Tetramethylbutane, 2,2,3,3-         | C8H18            | 594-82-1   | 1                 |                                      |
| Tetramethylgermane                  | C4H12Ge          | 865-52-1   | 2                 |                                      |
| Tetramethylguanidine, N,N,N',N'     | C5H13N3          | 80-70-6    | 0.6               | New added                            |
| Tetramethylsilane                   | C4H12Si          | 75-76-3    | 2                 |                                      |
| Thioacetic acid                     | C2H4OS           | 507-09-5   | 2                 |                                      |
| Thiocarbonyl fluoride               | CSF2             | 420-32-6   | 6                 |                                      |
| Thiocyanogen                        | C2S2N2           | 505-14-6   | 8                 |                                      |
| Thioformaldehyde trimer             | C3H6S3           | 291-21-4   | 1.5               |                                      |
| Thiophene                           | C4H4S            | 110-02-1   | 0.4               |                                      |
| Thiophosgene                        | CSCl2            | 463-71-8   | 1                 | Formula is modified from CCl2S       |
| Thymol                              | C10H14O          | 89-83-8    | 0.7               | New added                            |
| Titanium-n-propoxide                | C12H28O4Ti       | 3087-37-4  | 3                 |                                      |
| Toluene                             | C7H8             | 108-88-3   | 0.5               |                                      |
| Toluene-2,4-diisocyanate            | C9H6N2O2         | 584-84-9   | 1.6               |                                      |
| Toluenesulfonyl chloride, p-        | C7H7SO2Cl        | 98-59-9    | 3                 |                                      |
| Toluidine, o-                       | C7H9N            | 95-53-4    | 0.5               |                                      |
| Tolylaldehyde, p-                   | C8H8O            | 104-87-0   | 0.8               |                                      |
| Triazine, 1,3,5-                    | C3H3N3           | 290-87-9   | 6                 |                                      |
| Tributyl phosphate                  | C12H27O4P        | 126-73-8   | 5                 |                                      |
| Tributylamine                       | C12H27N          | 102-82-9   | 1.2               |                                      |
| Trichlorobenzene, 1,2,4-            | C6H3Cl3          | 120-82-1   | 0.6               |                                      |
| Trichloroethylene                   | C2HCl3           | 79-01-6    | 0.7               |                                      |
| Triethyl phosphate                  | C6H15O4P         | 78-40-0    | 3.5               | formula is modified from C6H15PO4    |
| Triethyl silane                     | C6H16Si          | 617-86-7   | 2                 |                                      |
| Triethylamine                       | C6H15N           | 121-44-8   | 0.9               |                                      |
| Triethylbenzene                     | C12H18           | 25340-18-5 | 0.35              |                                      |
| Triethylene aluminum                | C6H15Al          | 97-93-8    | 1                 |                                      |
| Trifluoroethene                     | C2HF3            | 359-11-5   | 5                 |                                      |
| Trifluoroethyl methyl ether, 2,2,2- | C3H5F3O          | 460-43-5   | 10                |                                      |
| Trifluoroiodomethane                | CF3I             | 2314-97-8  | 2                 |                                      |
| Trimethoxymethane                   | C4H10O3          | 149-73-5   | 1                 |                                      |
| Trimethoxyvinylsilane               | C5H12O3Si        | 2768-02-7  | 1.0               | New added                            |
| Trimethylamine                      | C3H9N            | 75-50-3    | 0.5               |                                      |
| Trimethylbenzene mixtures           | C9H12            | 25551-13-7 | 0.3               |                                      |
| Trimethylbenzene, 1,3,5-            | C9H12            | 108-67-8   | 0.4               |                                      |
| Trimethylborate                     | C3H9BO3          | 121-43-7   | 1                 |                                      |
| Trimethylcyclohexane, 1,2,4-        | C9H18            | 2234-75-5  | 1                 |                                      |
| Trimethylene oxide                  | C3H6O            | 503-30-0   | 1.5               |                                      |
| Trimethylsilane                     | C3H10Si          | 993-07-7   | 1                 |                                      |
| Trioxane                            | C3H6O3           | 110-88-3   | 2                 |                                      |

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Added gas

Updated part

| Gas name                  | Chemical formula | CAS No.   | Conversion factor | Comment                                |
|---------------------------|------------------|-----------|-------------------|--|
| Turpentine                | C10H16           | 9005-90-7 | 0.6               |  |
| TVOC                      |                  |           | 1                 |  |
| <b>U</b>                  |                  |           |                   |  |
| Undecane                  | C11H24           | 1120-21-4 | 0.9               |  |
| <b>V</b>                  |                  |           |                   |  |
| Vanillin                  | C8H8O3           | 121-33-5  | 1                 |  |
| Vinyl acetate             | C4H6O2           | 108-05-4  | 1.1               |  |
| Vinyl bromide             | C2H3Br           | 593-60-2  | 1.5               |  |
| Vinyl chloride            | C2H3Cl           | 75-01-4   | 2.1               |  |
| Vinyl ethyl ether         | C4H8O            | 109-92-2  | 0.6               |  |
| Vinyl fluoride            | C2H3F            | 75-02-5   | 2                 |  |
| Vinyl-2-pyrrolidinone, 1- | C6H9NO           | 88-12-0   | 0.9               |  |
| Vinylcyclohexene          | C8H12            | 100-40-3  | 0.7               |  |
| Vinylene carbonate        | C3H2O3           | 872-36-6  | 1                 |  |
| Vinylidene difluoride     | C2H2F2           | 75-38-7   | 5                 |  |
| Vinylsilane               | C2H6Si           | 7291-09-0 | 1.5               |  |
| <b>X</b>                  |                  |           |                   |  |
| Xylene mixed isomers      | C8H10            | 1330-20-7 | 0.40              | Conversion factor is modified from 0.3 |
| Xylene, m-                | C8H10            | 108-38-3  | 0.4               |  |
| Xylene, o-                | C8H10            | 95-47-6   | 0.6               |  |
| Xylene, p-                | C8H10            | 106-42-3  | 0.4               | Conversion factor is modified from 0.3 |
| Xylidine, all             | C8H11N           | 1300-73-8 | 0.7               |  |