

Method Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\

Method File : VL071818AIR.M

Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LWed Jul 18 14:38:53 2018

Last Update : Wed Jul 18 14:38:53 2018

Response Via : Initial Calibration

## Calibration Files

0.03=VL032264.D 0.1 =VL032263.D 0.5 =VL032262.D 1 =VL032261.D 2 =VL032260.D 10 =VL032259.D 15 =VL032265.D

|       | Compound            | 0.03           | 0.1   | 0.5   | 1     | 2     | 10    | 15    | Avg   | %RSD |
|-------|---------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 1) I  | Bromochloromethane  | -----ISTD----- |       |       |       |       |       |       |       |      |
| 2) T  | Dichlorodifluo...   |                | 1.832 | 1.849 | 1.777 | 1.582 | 1.460 | 1.700 | 10.06 |      |
| 3)    | Chlorodifluoro...   |                | 1.208 | 1.173 | 1.172 | 1.024 | 1.034 | 1.122 | 7.67  |      |
| 4)    | Chloromethane       |                | 0.690 | 0.693 | 0.664 | 0.620 | 0.638 | 0.661 | 4.85  |      |
| 5) T  | Vinyl Chloride      | 0.651          | 0.621 | 0.647 | 0.632 | 0.640 | 0.586 | 0.609 | 0.626 | 3.65 |
| 6) T  | Bromomethane        |                | 0.351 | 0.350 | 0.355 | 0.320 | 0.332 | 0.341 | 4.38  |      |
| 7)    | Chloroethane        |                | 0.219 | 0.228 | 0.238 | 0.207 | 0.220 | 0.222 | 5.15  |      |
| 8) T  | Dichlorotetra...    |                | 1.502 | 1.557 | 1.442 | 1.246 | 1.192 | 1.388 | 11.57 |      |
| 9) T  | Propene             |                | 0.453 | 0.482 | 0.519 | 0.489 | 0.510 | 0.490 | 5.28  |      |
| 10) T | Heptane             |                | 1.335 | 1.724 | 1.537 | 1.683 | 1.514 | 1.559 | 9.91  |      |
| 11) T | Trichlorofluor...   |                | 1.392 | 1.463 | 1.384 | 1.232 | 1.176 | 1.329 | 9.02  |      |
| 12) T | 1,1,2-Trichlor...   |                | 0.894 | 0.919 | 0.891 | 0.763 | 0.772 | 0.848 | 8.73  |      |
| 13)   | Ethanol             |                | 0.163 | 0.162 | 0.141 | 0.118 | 0.116 | 0.140 | 16.17 |      |
| 14) T | Bromoethene         |                | 0.374 | 0.395 | 0.403 | 0.364 | 0.376 | 0.382 | 4.24  |      |
| 15) T | Acetone             |                | 1.094 | 1.113 | 1.098 | 0.957 | 0.970 | 1.047 | 7.29  |      |
| 16) T | 1,3-Butadiene       |                | 0.475 | 0.526 | 0.599 | 0.518 | 0.547 | 0.533 | 8.50  |      |
| 17)   | tert-Butyl alc...   |                | 0.347 | 0.338 | 0.334 | 0.313 | 0.318 | 0.330 | 4.25  |      |
| 18) T | 1,1-Dichloroet...   |                | 0.393 | 0.402 | 0.429 | 0.367 | 0.390 | 0.396 | 5.64  |      |
| 19) T | Isopropyl Alcohol   |                | 0.721 | 0.772 | 0.678 | 0.701 | 0.669 | 0.708 | 5.81  |      |
| 20) T | Methylene Chlo...   |                | 0.446 | 0.441 | 0.435 | 0.339 | 0.354 | 0.403 | 12.95 |      |
| 21) T | Allyl Chloride      |                | 0.670 | 0.680 | 0.718 | 0.668 | 0.710 | 0.689 | 3.35  |      |
| 22) T | trans-1,2-Dich...   |                | 0.402 | 0.421 | 0.433 | 0.394 | 0.406 | 0.411 | 3.80  |      |
| 23) T | Vinyl Acetate       |                | 1.716 | 1.870 | 1.947 | 1.874 | 1.979 | 1.877 | 5.41  |      |
| 24) T | 1,1-Dichloroet...   |                | 1.374 | 1.462 | 1.442 | 1.269 | 1.261 | 1.362 | 6.91  |      |
| 25) T | Ethyl Acetate       |                | 2.345 | 2.368 | 2.397 | 2.144 | 2.145 | 2.280 | 5.48  |      |
| 26) T | Hexane              |                | 1.031 | 1.111 | 1.138 | 0.976 | 0.978 | 1.047 | 7.14  |      |
| 27) T | Carbon Disulfide    |                | 0.795 | 0.905 | 0.969 | 0.973 | 0.994 | 0.927 | 8.74  |      |
| 28) T | Methyl tert-Bu...   |                | 1.415 | 1.599 | 1.655 | 1.552 | 1.540 | 1.552 | 5.73  |      |
| 29) T | Chloroform          |                | 1.570 | 1.618 | 1.614 | 1.475 | 1.442 | 1.544 | 5.25  |      |
| 30) T | Cyclohexane         |                | 0.819 | 0.896 | 0.915 | 0.865 | 0.898 | 0.878 | 4.29  |      |
| 31) T | cis-1,2-Dichlo...   |                | 0.912 | 1.045 | 1.046 | 0.984 | 1.033 | 1.004 | 5.70  |      |
| 32) T | 1,1,1-Trichlor...   | 1.800          | 1.416 | 1.523 | 1.588 | 1.676 | 1.472 | 1.457 | 1.562 | 8.76 |
| 33) I | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |       |      |
| 34) T | 2-Butanone          |                | 0.676 | 0.712 | 0.729 | 0.652 | 0.662 | 0.686 | 4.82  |      |
| 35) T | Carbon Tetrach...   | 0.741          | 0.654 | 0.689 | 0.721 | 0.731 | 0.645 | 0.634 | 0.688 | 6.44 |
| 36) T | Benzene             |                | 0.953 | 1.034 | 1.083 | 0.926 | 0.927 | 0.984 | 7.15  |      |
| 37) T | 1,2-Dichloroet...   |                | 0.596 | 0.643 | 0.610 | 0.538 | 0.520 | 0.581 | 8.81  |      |

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|     |   |                   |                |       |       |       |       |       |       |       |       |
|-----|---|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) | T | Trichloroethene   | 0.374          | 0.316 | 0.306 | 0.342 | 0.350 | 0.311 | 0.281 | 0.326 | 9.65  |
| 39) | T | 1,2-Dichloropr... |                |       | 0.386 | 0.406 | 0.410 | 0.368 | 0.379 | 0.390 | 4.61  |
| 40) | T | 1,4-Dioxane       |                |       | 0.106 | 0.137 | 0.110 | 0.120 | 0.103 | 0.115 | 11.88 |
| 41) | T | Tetrahydrofuran   |                |       | 0.346 | 0.405 | 0.428 | 0.415 | 0.407 | 0.400 | 7.87  |
| 42) | T | Bromodichlorom... |                |       | 0.697 | 0.765 | 0.784 | 0.704 | 0.711 | 0.732 | 5.41  |
| 43) |   | Methyl Methacr... |                |       | 0.351 | 0.412 | 0.411 | 0.467 | 0.377 | 0.403 | 10.78 |
| 44) | T | 2,2,4-Trimethy... |                |       | 1.589 | 1.889 | 1.843 | 1.787 | 1.470 | 1.716 | 10.42 |
| 45) | T | t-1,3-Dichloro... |                |       | 0.337 | 0.396 | 0.540 | 0.511 | 0.593 | 0.475 | 22.20 |
| 46) | T | cis-1,3-Dichlo... |                |       | 0.543 | 0.635 | 0.602 | 0.683 | 0.568 | 0.606 | 9.10  |
| 47) | T | 1,1,2-Trichlor... |                |       | 0.413 | 0.498 | 0.420 | 0.419 | 0.356 | 0.421 | 12.03 |
| 48) | T | Dibromochlorom... |                |       | 0.533 | 0.677 | 0.692 | 0.623 | 0.545 | 0.614 | 11.89 |
| 49) | T | Bromoform         |                |       | 0.475 | 0.563 | 0.582 | 0.522 | 0.538 | 0.536 | 7.64  |
| 50) | T | 4-Methyl-2-Pen... |                |       | 1.140 | 1.256 | 1.138 | 1.159 | 0.953 | 1.129 | 9.71  |
| 51) | T | 2-Hexanone        |                |       | 0.666 | 0.883 | 0.989 | 0.797 | 0.969 | 0.861 | 15.45 |
| 52) | T | Tetrachloroethene | 0.345          | 0.356 | 0.340 | 0.374 | 0.353 | 0.298 | 0.288 | 0.336 | 9.41  |
| 53) | T | Toluene           |                |       | 1.045 | 1.245 | 1.322 | 1.189 | 1.166 | 1.193 | 8.58  |
| 54) | T | 1,2-Dibromoethane |                |       | 0.603 | 0.682 | 0.700 | 0.605 | 0.516 | 0.621 | 11.82 |
| 55) | I | Chlorobenzene-d5  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 56) |   | 1,1,1,2-Tetrac... |                |       | 0.468 | 0.486 | 0.482 | 0.404 | 0.386 | 0.445 | 10.54 |
| 57) | T | Chlorobenzene     |                |       | 0.869 | 0.915 | 0.883 | 0.729 | 0.705 | 0.820 | 11.71 |
| 58) | T | Ethyl Benzene     |                |       | 1.252 | 1.490 | 1.518 | 1.446 | 1.340 | 1.409 | 7.87  |
| 59) | T | m/p-Xylene        |                |       | 1.204 | 1.298 | 1.283 | 1.102 | 1.124 | 1.202 | 7.42  |
| 60) | T | o-Xylene          |                |       | 1.189 | 1.314 | 1.346 | 1.062 | 1.075 | 1.197 | 10.97 |
| 61) | T | Styrene           |                |       | 0.755 | 0.922 | 0.938 | 0.916 | 0.915 | 0.889 | 8.46  |
| 62) |   | Isopropylbenzene  |                |       | 1.703 | 1.851 | 1.859 | 1.621 | 1.547 | 1.716 | 8.04  |
| 63) | T | 1,1,2,2-Tetrac... | 1.302          | 1.050 | 1.063 | 1.089 | 1.043 | 0.795 | 0.804 | 1.021 | 17.20 |
| 64) |   | n-propylbenzene   |                |       | 0.420 | 0.458 | 0.487 | 0.427 | 0.412 | 0.441 | 7.09  |
| 65) |   | tert-Butylbenzene |                |       | 1.463 | 1.618 | 1.668 | 1.321 | 1.242 | 1.462 | 12.58 |
| 66) | T | Benzyl Chloride   |                |       | 0.616 | 0.750 | 0.886 | 0.945 | 0.920 | 0.823 | 16.77 |
| 67) |   | sec-Butylbenzene  |                |       | 2.187 | 2.376 | 2.512 | 1.961 | 1.873 | 2.182 | 12.36 |
| 68) | S | 1-Bromo-4-Fluo... | 0.834          | 0.843 | 0.787 | 0.780 | 0.789 | 0.821 | 0.821 | 0.811 | 3.11  |
| 69) |   | p-Isopropyltol... |                |       | 1.632 | 1.807 | 1.945 | 1.541 | 1.501 | 1.685 | 11.09 |
| 70) |   | n-Butylbenzene    |                |       | 1.770 | 2.093 | 2.161 | 1.732 | 1.644 | 1.880 | 12.32 |
| 71) |   | 2-Chlorotoluene   |                |       | 1.293 | 1.454 | 1.554 | 1.317 | 1.260 | 1.376 | 9.04  |
| 72) | T | 4-Ethyltoluene    |                |       | 1.240 | 1.445 | 1.545 | 1.366 | 1.319 | 1.383 | 8.48  |
| 73) | T | 1,3,5-Trimethy... |                |       | 1.276 | 1.438 | 1.517 | 1.290 | 1.241 | 1.352 | 8.80  |
| 74) | T | 1,2,4-Trimethy... |                |       | 1.452 | 1.585 | 1.614 | 1.248 | 1.179 | 1.416 | 13.85 |
| 75) | T | 1,3-Dichlorobe... |                |       | 0.845 | 0.883 | 0.866 | 0.685 | 0.654 | 0.787 | 13.76 |
| 76) | T | 1,4-Dichlorobe... |                |       | 0.802 | 0.856 | 0.845 | 0.703 | 0.696 | 0.780 | 9.81  |
| 77) | T | 1,2-Dichlorobe... |                |       | 0.806 | 0.805 | 0.840 | 0.677 | 0.674 | 0.760 | 10.38 |
| 78) | T | Hexachloro-1,3... |                |       | 0.267 | 0.286 | 0.277 | 0.201 | 0.201 | 0.247 | 17.07 |
| 79) | T | Naphthalene       |                |       | 0.975 | 1.234 | 1.457 | 1.141 | 1.137 | 1.189 | 14.86 |
| 80) | T | Naphthalene,2-... |                |       | 0.285 | 0.448 | 0.655 | 0.560 | 0.577 | 0.505 | 28.44 |
| 81) | T | 1,2,4-Trichlor... |                |       | 0.521 | 0.625 | 0.689 | 0.536 | 0.527 | 0.580 | 12.83 |

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(#) = Out of Range