

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\  
 Method File : 624N060622W.M  
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 Last Update : Mon Jun 06 14:10:15 2022  
 Response Via : Initial Calibration

## Calibration Files

5 =VN072662.D 20 =VN072657.D 50 =VN072658.D 100 =VN072659.D 150 =VN072660.D

| Compound |                     | 5              | 20    | 50    | 100   | 150   | Avg    | %RSD  |
|----------|---------------------|----------------|-------|-------|-------|-------|--------|-------|
| -----    |                     |                |       |       |       |       |        |       |
| 1) I     | Bromochloromethane  | -----ISTD----- |       |       |       |       |        |       |
| 2) M     | Dichlorodifluoro... | 2.562          | 2.242 | 2.126 | 2.170 | 2.137 | 2.247  | 8.09  |
| 3) M     | Chloromethane       | 2.945          | 2.411 | 2.284 | 2.255 | 2.323 | 2.444  | 11.72 |
| 4) M     | Vinyl Chloride      | 2.520          | 2.214 | 2.080 | 2.117 | 2.087 | 2.204  | 8.38  |
| 5) M     | Bromomethane        | 1.551          | 1.111 | 1.016 | 1.096 | 0.924 | 1.140  | 21.20 |
| 6) M     | Chloroethane        | 1.749          | 1.573 | 1.318 | 1.389 | 1.317 | 1.469  | 12.81 |
| 7) M     | Trichlorofluorom... | 4.502          | 4.016 | 3.781 | 3.884 | 3.735 | 3.984  | 7.76  |
| 8) T     | Diethyl Ether       | 1.678          | 1.555 | 1.494 | 1.516 | 1.479 | 1.544  | 5.16  |
| 9)       | 1,1,2-Trichlorot... | 2.374          | 2.109 | 2.012 | 2.029 | 1.969 | 2.099  | 7.73  |
| 10) M    | 1,1-Dichloroethene  | 2.344          | 1.943 | 1.856 | 1.914 | 1.853 | 1.982  | 10.38 |
| 11)      | Methyl Iodide       | 1.539          | 2.058 | 2.018 | 2.161 | 2.148 | 1.984  | 12.92 |
| 12)      | Methyl Acetate      | 4.850          | 3.994 | 3.888 | 3.913 | 3.803 | 4.089  | 10.53 |
| 13) M    | Acrolein            | 0.461          | 0.334 | 0.322 | 0.334 | 0.338 | 0.358  | 16.12 |
| 14) M    | Acrylonitrile       | 1.774          | 1.689 | 1.615 | 1.644 | 1.612 | 1.667  | 4.03  |
| 15) M    | Acetone             | 0.511          | 0.457 | 0.433 | 0.432 | 0.424 | 0.451  | 7.90  |
| 16) M    | Carbon Disulfide    | 6.573          | 4.717 | 4.472 | 4.648 | 4.573 | 4.997  | 17.73 |
| 17)      | Allyl chloride      | 4.607          | 4.283 | 4.128 | 4.235 | 4.156 | 4.282  | 4.49  |
| 18) M    | Methylene Chloride  | 2.839          | 2.520 | 2.354 | 2.374 | 2.358 | 2.489  | 8.33  |
| 19) M    | trans-1,2-Dichlo... | 2.487          | 2.162 | 2.047 | 2.047 | 1.983 | 2.145  | 9.41  |
| 20) T    | Diisopropyl ether   | 8.601          | 8.745 | 8.296 | 8.482 | 8.276 | 8.480  | 2.36  |
| 21) M    | 1,1-Dichloroethane  | 5.255          | 4.694 | 4.525 | 4.619 | 4.464 | 4.711  | 6.71  |
| 22) M    | cis-1,2-Dichloro... | 2.997          | 2.734 | 2.543 | 2.607 | 2.552 | 2.687  | 7.05  |
| 23) M    | tert-Butyl Alcohol  | 0.865          | 0.805 | 0.720 | 0.747 | 0.741 | 0.776  | 7.61  |
| 24) M    | Methyl tert-Buty... | 9.406          | 8.962 | 8.510 | 8.719 | 8.478 | 8.815  | 4.35  |
| 25) M    | Chloroform          | 5.277          | 4.898 | 4.659 | 4.745 | 4.619 | 4.840  | 5.52  |
| 26)      | Cyclohexane         | 4.544          | 3.932 | 3.712 | 3.759 | 3.694 | 3.928  | 9.09  |
| 27) s    | 1,2-Dichloroetha... | 3.447          | 3.532 | 3.456 | 3.374 | 3.299 | 3.421  | 2.58  |
|          |                     |                |       |       |       |       |        |       |
| 28) I    | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |        |       |
| 29)      | 1,1-Dichloropropene | 0.636          | 0.546 | 0.540 | 0.572 | 0.565 | 0.572  | 6.69  |
| 30) M    | 2-Butanone          | 0.445          | 0.404 | 0.401 | 0.413 | 0.406 | 0.414  | 4.38  |
| 31)      | 2,2-Dichloropropane | 0.851          | 0.757 | 0.731 | 0.771 | 0.761 | 0.774  | 5.85  |
| 32) M    | 1,1,1-Trichloroe... | 0.814          | 0.731 | 0.715 | 0.746 | 0.734 | 0.748  | 5.14  |
| 33) M    | Carbon Tetrachlo... | 0.710          | 0.626 | 0.611 | 0.649 | 0.631 | 0.645  | 5.97  |
| 34) M    | Benzene             | 1.852          | 1.644 | 1.618 | 1.683 | 1.662 | 1.692  | 5.47  |
| 35)      | Methacrylonitrile   | 0.454          | 0.377 | 0.383 | 0.413 | 0.403 | 0.406  | 7.51  |
| 36) M    | 1,2-Dichloroethane  | 0.775          | 0.709 | 0.677 | 0.717 | 0.696 | 0.715  | 5.18  |
| 37) M    | Trichloroethene     | 0.447          | 0.390 | 0.388 | 0.408 | 0.407 | 0.408  | 5.89  |
| 38)      | Methylcyclohexane   | 0.780          | 0.650 | 0.645 | 0.672 | 0.666 | 0.683  | 8.15  |
| 39) M    | 1,2-Dichloropropane | 0.509          | 0.451 | 0.443 | 0.466 | 0.457 | 0.465  | 5.56  |
| 40)      | Dibromomethane      | 0.347          | 0.308 | 0.302 | 0.322 | 0.316 | 0.319  | 5.53  |
| 41) M    | Bromodichloromet... | 0.705          | 0.672 | 0.652 | 0.697 | 0.687 | 0.683  | 3.05  |
| 42) M    | Vinyl Acetate       | 1.405          | 1.321 | 1.306 | 1.369 | 1.335 | 1.347  | 2.97  |
| 43)      | Ethyl Acetate       | 0.820          | 0.794 | 0.739 | 0.812 | 0.800 | 0.793  | 4.05  |
| 44)      | Isopropyl Acetate   | 1.431          | 1.280 | 1.248 | 1.311 | 1.307 | 1.315  | 5.27  |
| 45) T    | 1,4-Dioxane         | 0.011          | 0.011 | 0.010 | 0.011 | 0.011 | 0.011# | 3.62  |
| 46)      | Methyl methacrylate | 0.642          | 0.559 | 0.541 | 0.594 | 0.605 | 0.588  | 6.73  |
| 47)      | n-amyl Acetate      | 0.977          | 0.909 | 1.011 | 1.103 | 1.034 | 1.007  | 7.10  |
| 48) M    | t-1,3-Dichloropr... | 0.793          | 0.737 | 0.743 | 0.806 | 0.817 | 0.779  | 4.72  |
| 49) T    | cis-1,3-Dichloro... | 0.821          | 0.754 | 0.756 | 0.815 | 0.809 | 0.791  | 4.18  |
| 50) M    | 1,1,2-Trichloroe... | 0.481          | 0.447 | 0.427 | 0.451 | 0.449 | 0.451  | 4.29  |
| 51)      | Ethyl methacrylate  | 0.833          | 0.787 | 0.779 | 0.845 | 0.842 | 0.817  | 3.86  |
| 52)      | 1,3-Dichloropropane | 0.835          | 0.800 | 0.757 | 0.812 | 0.809 | 0.803  | 3.58  |
| 53) M    | Dibromochloromet... | 0.500          | 0.481 | 0.477 | 0.514 | 0.517 | 0.498  | 3.66  |
| 54) M    | 1,2-Dibromoethane   | 0.500          | 0.460 | 0.447 | 0.481 | 0.483 | 0.474  | 4.38  |
| 55) M    | 2-Chloroethyl vi... | 0.286          | 0.287 | 0.311 | 0.349 | 0.368 | 0.320  | 11.52 |
| 56) M    | Bromoform           | 0.340          | 0.322 | 0.338 | 0.373 | 0.361 | 0.347  | 5.78  |

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|       |                     | -----ISTD----- |       |       |       |       |       |  |      |
|-------|---------------------|----------------|-------|-------|-------|-------|-------|--|------|
| 57) I | Chlorobenzene-d5    |                |       |       |       |       |       |  |      |
| 58) M | 4-Methyl-2-Penta... | 0.958          | 0.901 | 0.865 | 0.894 | 0.880 | 0.900 |  | 3.92 |
| 59) M | 2-Hexanone          | 0.726          | 0.672 | 0.670 | 0.691 | 0.651 | 0.682 |  | 4.13 |
| 60) S | 4-Bromofluoroben... | 0.575          | 0.596 | 0.638 | 0.652 | 0.623 | 0.617 |  | 5.05 |
| 61) M | Tetrachloroethene   | 0.434          | 0.372 | 0.352 | 0.355 | 0.343 | 0.371 |  | 9.82 |
| 62) M | Toluene             | 2.272          | 2.010 | 1.938 | 1.986 | 1.965 | 2.034 |  | 6.67 |
| 63) S | Toluene-d8          | 1.674          | 1.709 | 1.668 | 1.633 | 1.625 | 1.662 |  | 2.04 |
| 64) M | Chlorobenzene       | 1.323          | 1.209 | 1.189 | 1.244 | 1.228 | 1.238 |  | 4.16 |
| 65)   | 1,1,1,2-Tetrachl... | 0.496          | 0.496 | 0.474 | 0.488 | 0.488 | 0.488 |  | 1.88 |
| 66) M | Ethyl Benzene       | 2.493          | 2.293 | 2.242 | 2.337 | 2.313 | 2.335 |  | 4.06 |
| 67) M | m/p-Xylenes         | 0.909          | 0.826 | 0.821 | 0.858 | 0.844 | 0.852 |  | 4.10 |
| 68) M | o-Xylene            | 0.939          | 0.858 | 0.824 | 0.866 | 0.858 | 0.869 |  | 4.86 |
| 69) M | Styrene             | 1.405          | 1.295 | 1.353 | 1.436 | 1.408 | 1.379 |  | 4.05 |
| 70)   | Isopropylbenzene    | 2.385          | 2.207 | 2.190 | 2.304 | 2.268 | 2.271 |  | 3.46 |
| 71) M | 1,1,2,2-Tetrachl... | 0.830          | 0.759 | 0.760 | 0.782 | 0.712 | 0.769 |  | 5.56 |
| 72)   | 1,2,3-Trichlorop... | 0.710          | 0.736 | 0.639 | 0.648 | 0.621 | 0.671 |  | 7.40 |
| 73)   | Bromobenzene        | 0.475          | 0.443 | 0.452 | 0.477 | 0.461 | 0.462 |  | 3.19 |
| 74)   | n-propylbenzene     | 2.658          | 2.448 | 2.548 | 2.683 | 2.654 | 2.598 |  | 3.79 |
| 75)   | 2-Chlorotoluene     | 1.715          | 1.537 | 1.556 | 1.647 | 1.598 | 1.611 |  | 4.47 |
| 76)   | 1,3,5-Trimethylb... | 1.921          | 1.790 | 1.818 | 1.919 | 1.872 | 1.864 |  | 3.16 |
| 77)   | t-1,4-Dichloro-2... | 0.265          | 0.263 | 0.289 | 0.304 | 0.293 | 0.283 |  | 6.31 |
| 78)   | 4-Chlorotoluene     | 1.532          | 1.425 | 1.484 | 1.600 | 1.566 | 1.522 |  | 4.55 |
| 79)   | tert-butylbenzene   | 1.754          | 1.610 | 1.618 | 1.698 | 1.640 | 1.664 |  | 3.66 |
| 80)   | 1,2,4-Trimethylb... | 2.250          | 2.104 | 2.213 | 2.355 | 2.314 | 2.247 |  | 4.33 |
| 81)   | sec-Butylbenzene    | 2.250          | 2.104 | 2.213 | 2.355 | 2.314 | 2.247 |  | 4.33 |
| 82)   | p-Isopropyltoluene  | 1.743          | 1.639 | 1.794 | 1.920 | 1.875 | 1.794 |  | 6.17 |
| 83) M | 1,3-Dichlorobenzene | 0.850          | 0.734 | 0.798 | 0.846 | 0.812 | 0.808 |  | 5.82 |
| 84) M | 1,4-Dichlorobenzene | 0.786          | 0.721 | 0.766 | 0.843 | 0.808 | 0.785 |  | 5.84 |
| 85)   | n-Butylbenzene      | 1.422          | 1.355 | 1.517 | 1.654 | 1.658 | 1.521 |  | 8.94 |
| 86) T | Hexachloroethane    | 0.392          | 0.380 | 0.396 | 0.415 | 0.403 | 0.397 |  | 3.26 |
| 87) M | 1,2-Dichlorobenzene | 0.849          | 0.741 | 0.799 | 0.825 | 0.785 | 0.800 |  | 5.15 |
| 88)   | 1,2-Dibromo-3-Ch... | 0.197          | 0.185 | 0.192 | 0.195 | 0.194 | 0.193 |  | 2.33 |
| 89)   | 1,2,4-Trichlorob... | 0.402          | 0.358 | 0.394 | 0.432 | 0.429 | 0.403 |  | 7.47 |
| 90)   | Hexachlorobutadiene | 0.184          | 0.174 | 0.180 | 0.186 | 0.180 | 0.181 |  | 2.50 |
| 91) M | Naphthalene         | 1.633          | 1.423 | 1.572 | 1.699 | 1.713 | 1.608 |  | 7.33 |
| 92)   | 1,2,3-Trichlorob... | 0.426          | 0.360 | 0.406 | 0.431 | 0.427 | 0.410 |  | 7.24 |

(#) = Out of Range