

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\  
 Method File : 624X072921W.M  
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 Last Update : Thu Jul 29 03:13:17 2021  
 Response Via : Initial Calibration

## Calibration Files

5 =VX023492.D 20 =VX023493.D 50 =VX023494.D 100 =VX023495.D 150 =VX023496.D

| Compound |                     | 5              | 20    | 50    | 100   | 150   | Avg   | %RSD  |
|----------|---------------------|----------------|-------|-------|-------|-------|-------|-------|
| -----    |                     |                |       |       |       |       |       |       |
| 1) I     | Bromochloromethane  | -----ISTD----- |       |       |       |       |       |       |
| 2) M     | Dichlorodifluoro... | 1.880          | 1.557 | 1.754 | 1.796 | 1.779 | 1.753 | 6.82  |
| 3) M     | Chloromethane       | 2.117          | 1.764 | 1.996 | 2.023 | 1.982 | 1.977 | 6.56  |
| 4) M     | Vinyl Chloride      | 2.060          | 1.733 | 1.981 | 2.056 | 2.046 | 1.975 | 7.05  |
| 5) M     | Bromomethane        | 1.452          | 1.199 | 1.138 | 1.145 | 1.052 | 1.197 | 12.70 |
| 6) M     | Chloroethane        | 1.318          | 1.094 | 1.229 | 1.265 | 1.249 | 1.231 | 6.78  |
| 7) M     | Trichlorofluorom... | 3.380          | 2.726 | 3.107 | 3.267 | 3.234 | 3.143 | 8.04  |
| 8) T     | Diethyl Ether       | 1.206          | 0.991 | 1.147 | 1.171 | 1.156 | 1.134 | 7.33  |
| 9)       | 1,1,2-Trichlorot... | 1.923          | 1.551 | 1.737 | 1.816 | 1.763 | 1.758 | 7.74  |
| 10) M    | 1,1-Dichloroethene  | 1.800          | 1.470 | 1.708 | 1.776 | 1.735 | 1.698 | 7.78  |
| 11)      | Methyl Iodide       | 2.039          | 1.942 | 2.529 | 2.720 | 2.675 | 2.381 | 15.33 |
| 12)      | Methyl Acetate      | 2.687          | 2.287 | 2.565 | 2.659 | 2.609 | 2.561 | 6.26  |
| 13) M    | Acrolein            | 0.382          | 0.250 | 0.276 | 0.287 | 0.283 | 0.296 | 16.99 |
| 14) M    | Acrylonitrile       | 1.205          | 1.028 | 1.163 | 1.185 | 1.150 | 1.146 | 6.06  |
| 15) M    | Acetone             | 0.357          | 0.313 | 0.321 | 0.325 | 0.310 | 0.325 | 5.71  |
| 16) M    | Carbon Disulfide    | 3.869          | 3.304 | 4.100 | 4.502 | 4.575 | 4.070 | 12.71 |
| 17)      | Allyl chloride      | 3.133          | 2.709 | 3.156 | 3.306 | 3.262 | 3.113 | 7.62  |
| 18) M    | Methylene Chloride  | 2.311          | 1.814 | 1.988 | 2.014 | 1.998 | 2.025 | 8.86  |
| 19) M    | trans-1,2-Dichlo... | 1.934          | 1.594 | 1.808 | 1.907 | 1.861 | 1.821 | 7.45  |
| 20) T    | Diisopropyl ether   | 6.431          | 5.564 | 6.303 | 6.546 | 6.561 | 6.281 | 6.60  |
| 21) M    | 1,1-Dichloroethane  | 3.502          | 2.987 | 3.414 | 3.590 | 3.553 | 3.409 | 7.19  |
| 22) M    | cis-1,2-Dichloro... | 2.260          | 1.914 | 2.155 | 2.233 | 2.201 | 2.153 | 6.47  |
| 23) M    | tert-Butyl Alcohol  | 0.519          | 0.455 | 0.528 | 0.521 | 0.501 | 0.505 | 5.88  |
| 24) M    | Methyl tert-Buty... | 6.313          | 5.218 | 6.068 | 6.336 | 6.290 | 6.045 | 7.85  |
| 25) M    | Chloroform          | 3.700          | 3.087 | 3.530 | 3.671 | 3.651 | 3.528 | 7.22  |
| 26)      | Cyclohexane         | 3.320          | 2.775 | 3.148 | 3.298 | 3.247 | 3.157 | 7.10  |
| 27) s    | 1,2-Dichloroetha... | 2.271          | 2.263 | 2.274 | 2.241 | 2.344 | 2.278 | 1.69  |
|          |                     |                |       |       |       |       |       |       |
| 28) I    | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |
| 29)      | 1,1-Dichloropropene | 0.456          | 0.415 | 0.462 | 0.490 | 0.473 | 0.459 | 6.10  |
| 30) M    | 2-Butanone          | 0.310          | 0.275 | 0.303 | 0.315 | 0.302 | 0.301 | 5.19  |
| 31)      | 2,2-Dichloropropane | 0.501          | 0.437 | 0.503 | 0.530 | 0.514 | 0.497 | 7.14  |
| 32) M    | 1,1,1-Trichloroe... | 0.532          | 0.474 | 0.542 | 0.582 | 0.574 | 0.541 | 7.88  |
| 33) M    | Carbon Tetrachlo... | 0.451          | 0.400 | 0.479 | 0.510 | 0.503 | 0.469 | 9.57  |
| 34) M    | Benzene             | 1.425          | 1.219 | 1.362 | 1.422 | 1.384 | 1.362 | 6.20  |
| 35)      | Methacrylonitrile   | 0.295          | 0.268 | 0.303 | 0.333 | 0.320 | 0.304 | 8.26  |
| 36) M    | 1,2-Dichloroethane  | 0.537          | 0.460 | 0.518 | 0.535 | 0.529 | 0.516 | 6.20  |
| 37) M    | Trichloroethene     | 0.377          | 0.329 | 0.373 | 0.392 | 0.378 | 0.370 | 6.50  |
| 38)      | Methylcyclohexane   | 0.597          | 0.508 | 0.587 | 0.613 | 0.598 | 0.581 | 7.14  |
| 39) M    | 1,2-Dichloropropane | 0.364          | 0.314 | 0.359 | 0.375 | 0.369 | 0.356 | 6.82  |
| 40)      | Dibromomethane      | 0.243          | 0.215 | 0.251 | 0.265 | 0.258 | 0.246 | 7.74  |
| 41) M    | Bromodichloromet... | 0.413          | 0.375 | 0.454 | 0.496 | 0.495 | 0.447 | 11.84 |
| 42) M    | Vinyl Acetate       | 0.979          | 0.878 | 1.005 | 1.050 | 1.022 | 0.987 | 6.68  |
| 43)      | Ethyl Acetate       | 0.588          | 0.509 | 0.571 | 0.606 | 0.585 | 0.572 | 6.51  |
| 44)      | Isopropyl Acetate   | 0.893          | 0.793 | 0.910 | 0.969 | 0.959 | 0.905 | 7.74  |
| 45) T    | 1,4-Dioxane         | 0.009          | 0.009 | 0.010 | 0.010 | 0.009 | 0.009 | 5.13  |
| 46)      | Methyl methacrylate | 0.423          | 0.380 | 0.443 | 0.471 | 0.459 | 0.435 | 8.17  |
| 47)      | n-amyl Acetate      | 0.696          | 0.657 | 0.823 | 0.821 | 0.792 | 0.758 | 10.10 |
| 48) M    | t-1,3-Dichloropr... | 0.453          | 0.432 | 0.539 | 0.594 | 0.590 | 0.522 | 14.51 |
| 49) T    | cis-1,3-Dichloro... | 0.510          | 0.468 | 0.576 | 0.619 | 0.613 | 0.557 | 11.85 |
| 50) M    | 1,1,2-Trichloroe... | 0.363          | 0.322 | 0.367 | 0.387 | 0.372 | 0.362 | 6.64  |
| 51)      | Ethyl methacrylate  | 0.561          | 0.499 | 0.600 | 0.644 | 0.614 | 0.584 | 9.58  |
| 52)      | 1,3-Dichloropropane | 0.609          | 0.541 | 0.601 | 0.638 | 0.618 | 0.601 | 6.07  |
| 53) M    | Dibromochloromet... | 0.297          | 0.284 | 0.366 | 0.409 | 0.401 | 0.352 | 16.54 |
| 54) M    | 1,2-Dibromoethane   | 0.372          | 0.333 | 0.389 | 0.419 | 0.404 | 0.384 | 8.68  |
| 55) M    | 2-Chloroethyl vi... | 0.292          | 0.260 | 0.294 | 0.306 | 0.293 | 0.289 | 5.93  |
| 56) M    | Bromoform           | 0.199          | 0.199 | 0.272 | 0.291 | 0.282 | 0.249 | 18.37 |

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|       |                     | -----ISTD----- |       |       |       |       |       |       |
|-------|---------------------|----------------|-------|-------|-------|-------|-------|-------|
| 57) I | Chlorobenzene-d5    |                |       |       |       |       |       |       |
| 58) M | 4-Methyl-2-Penta... | 0.645          | 0.587 | 0.652 | 0.650 | 0.602 | 0.627 | 4.82  |
| 59) M | 2-Hexanone          | 0.504          | 0.460 | 0.516 | 0.489 | 0.455 | 0.485 | 5.56  |
| 60) S | 4-Bromofluoroben... | 0.474          | 0.480 | 0.497 | 0.490 | 0.483 | 0.485 | 1.88  |
| 61) M | Tetrachloroethene   | 0.425          | 0.356 | 0.393 | 0.400 | 0.382 | 0.391 | 6.51  |
| 62) M | Toluene             | 1.745          | 1.494 | 1.668 | 1.710 | 1.677 | 1.659 | 5.85  |
| 63) S | Toluene-d8          | 1.354          | 1.374 | 1.344 | 1.337 | 1.358 | 1.353 | 1.05  |
| 64) M | Chlorobenzene       | 1.062          | 0.929 | 1.041 | 1.087 | 1.046 | 1.033 | 5.87  |
| 65)   | 1,1,1,2-Tetrachl... | 0.348          | 0.326 | 0.378 | 0.403 | 0.394 | 0.370 | 8.71  |
| 66) M | Ethyl Benzene       | 1.879          | 1.628 | 1.864 | 1.929 | 1.862 | 1.832 | 6.42  |
| 67) M | m/p-Xylenes         | 0.696          | 0.617 | 0.717 | 0.741 | 0.715 | 0.697 | 6.85  |
| 68) M | o-Xylene            | 0.700          | 0.608 | 0.711 | 0.736 | 0.710 | 0.693 | 7.08  |
| 69) M | Styrene             | 1.051          | 0.986 | 1.180 | 1.216 | 1.180 | 1.123 | 8.81  |
| 70)   | Isopropylbenzene    | 1.787          | 1.610 | 1.864 | 1.923 | 1.838 | 1.804 | 6.61  |
| 71) M | 1,1,2,2-Tetrachl... | 0.598          | 0.530 | 0.604 | 0.592 | 0.570 | 0.579 | 5.22  |
| 72)   | 1,2,3-Trichlorop... | 0.556          | 0.498 | 0.579 | 0.543 | 0.515 | 0.538 | 5.98  |
| 73)   | Bromobenzene        | 0.470          | 0.399 | 0.464 | 0.465 | 0.441 | 0.448 | 6.57  |
| 74)   | n-propylbenzene     | 2.037          | 1.832 | 2.165 | 2.243 | 2.139 | 2.083 | 7.61  |
| 75)   | 2-Chlorotoluene     | 1.268          | 1.101 | 1.295 | 1.317 | 1.260 | 1.248 | 6.82  |
| 76)   | 1,3,5-Trimethylb... | 1.528          | 1.332 | 1.540 | 1.587 | 1.519 | 1.501 | 6.56  |
| 77)   | t-1,4-Dichloro-2... | 0.148          | 0.154 | 0.207 | 0.214 | 0.212 | 0.187 | 17.64 |
| 78)   | 4-Chlorotoluene     | 1.388          | 1.230 | 1.452 | 1.496 | 1.440 | 1.401 | 7.38  |
| 79)   | tert-butylbenzene   | 1.483          | 1.277 | 1.528 | 1.539 | 1.478 | 1.461 | 7.29  |
| 80)   | 1,2,4-Trimethylb... | 1.513          | 1.314 | 1.534 | 1.554 | 1.482 | 1.479 | 6.52  |
| 81)   | sec-Butylbenzene    | 1.842          | 1.639 | 1.953 | 1.998 | 1.903 | 1.867 | 7.51  |
| 82)   | p-Isopropyltoluene  | 1.534          | 1.355 | 1.602 | 1.644 | 1.572 | 1.541 | 7.25  |
| 83) M | 1,3-Dichlorobenzene | 0.803          | 0.689 | 0.827 | 0.832 | 0.813 | 0.793 | 7.44  |
| 84) M | 1,4-Dichlorobenzene | 0.785          | 0.694 | 0.817 | 0.831 | 0.813 | 0.788 | 7.02  |
| 85)   | n-Butylbenzene      | 1.327          | 1.161 | 1.422 | 1.480 | 1.424 | 1.363 | 9.21  |
| 86) T | Hexachloroethane    | 0.202          | 0.195 | 0.264 | 0.281 | 0.272 | 0.243 | 16.86 |
| 87) M | 1,2-Dichlorobenzene | 0.779          | 0.683 | 0.785 | 0.795 | 0.774 | 0.763 | 5.94  |
| 88)   | 1,2-Dibromo-3-Ch... | 0.101          | 0.103 | 0.131 | 0.143 | 0.145 | 0.125 | 17.16 |
| 89)   | 1,2,4-Trichlorob... | 0.435          | 0.405 | 0.485 | 0.528 | 0.518 | 0.474 | 11.18 |
| 90)   | Hexachlorobutadiene | 0.215          | 0.186 | 0.214 | 0.224 | 0.217 | 0.211 | 7.01  |
| 91) M | Naphthalene         | 1.459          | 1.451 | 1.721 | 1.830 | 1.782 | 1.649 | 10.97 |
| 92)   | 1,2,3-Trichlorob... | 0.451          | 0.411 | 0.491 | 0.527 | 0.519 | 0.480 | 10.10 |

(#) = Out of Range