

Method Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\  
 Method File : 524U072920DW.M  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Fri Sep 04 18:51:11 2020  
 Response Via : Initial Calibration

## Calibration Files

0.5 =VU039702.D 1 =VU039696.D 2 =VU039697.D  
 5 =VU039698.D 10 =VU039699.D 20 =VU039700.D

| Compound |                   | 0.5            | 1     | 2     | 5     | 10    | 20    | Avg   | %RSD  |
|----------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| -----    |                   |                |       |       |       |       |       |       |       |
| 1) i     | Fluorobenzene     | -----ISTD----- |       |       |       |       |       |       |       |
| 2) T     | Dichlorodifluorom | 0.335          | 0.353 | 0.346 | 0.357 | 0.348 | 0.346 | 0.347 | 2.10  |
| 3) t     | Chloromethane     | 0.453          | 0.446 | 0.437 | 0.434 | 0.408 | 0.411 | 0.432 | 4.23  |
| 4) Rt    | Vinyl Chloride    | 0.390          | 0.413 | 0.404 | 0.409 | 0.381 | 0.390 | 0.398 | 3.12  |
| 5) T     | Bromomethane      | 0.302          | 0.303 | 0.285 | 0.272 | 0.237 | 0.234 | 0.272 | 11.29 |
| 6) T     | Chloroethane      | 0.326          | 0.276 | 0.266 | 0.278 | 0.257 | 0.254 | 0.276 | 9.57  |
| 7) T     | Trichlorofluorome | 0.539          | 0.530 | 0.528 | 0.542 | 0.511 | 0.509 | 0.526 | 2.61  |
| 8)       | 1,1,2-Trichloro-1 | 0.306          | 0.303 | 0.314 | 0.308 | 0.291 | 0.291 | 0.302 | 3.09  |
| 9) Rt    | 1,1-Dichloroethen | 0.281          | 0.283 | 0.277 | 0.287 | 0.270 | 0.271 | 0.278 | 2.45  |
| 10) t    | Iodomethane       | 0.221          | 0.223 | 0.257 | 0.311 | 0.326 | 0.344 | 0.280 | 19.22 |
| 11) t    | Allyl Chloride    | 0.632          | 0.599 | 0.595 | 0.612 | 0.572 | 0.586 | 0.599 | 3.48  |
| 12) t    | Acrylonitrile     | 0.098          | 0.101 | 0.099 | 0.104 | 0.092 | 0.092 | 0.098 | 4.97  |
| 13) T    | Acetone           | 0.107          | 0.092 | 0.085 | 0.098 | 0.086 | 0.084 | 0.092 | 9.89  |
| 14) T    | Carbon Disulfide  | 1.037          | 1.015 | 1.040 | 1.039 | 0.987 | 0.996 | 1.019 | 2.31  |
| 15) RT   | Methylene Chlorid | 0.518          | 0.416 | 0.372 | 0.358 | 0.330 | 0.330 | 0.387 | 18.50 |
| 16) RT   | trans-1,2-Dichlor | 0.307          | 0.323 | 0.329 | 0.325 | 0.303 | 0.308 | 0.316 | 3.51  |
| 17) t    | 1,1-Dichloroethan | 0.700          | 0.694 | 0.726 | 0.711 | 0.668 | 0.663 | 0.694 | 3.54  |
| 18) T    | 2-Butanone        | 0.179          | 0.144 | 0.158 | 0.154 | 0.144 | 0.146 | 0.154 | 8.69  |
| 19)      | Cyclohexane       | 0.722          | 0.670 | 0.691 | 0.677 | 0.632 | 0.637 | 0.671 | 5.03  |
| 20)      | Methylcyclohexane | 0.464          | 0.449 | 0.471 | 0.533 | 0.519 | 0.548 | 0.497 | 8.25  |
| 21) T    | 2,2-Dichloropropa | 0.621          | 0.575 | 0.556 | 0.578 | 0.531 | 0.535 | 0.566 | 5.92  |
| 22) RT   | cis-1,2-Dichloroe | 0.337          | 0.350 | 0.343 | 0.353 | 0.327 | 0.333 | 0.340 | 2.87  |
| 23) t    | Diethyl Ether     | 0.314          | 0.272 | 0.296 | 0.281 | 0.271 | 0.271 | 0.284 | 6.13  |
| 24) t    | tert-Butyl Alcoho | 0.093          | 0.065 | 0.044 | 0.037 | 0.033 | 0.033 | 0.051 | 47.21 |
| 25) t    | Methyl tert-Butyl | 0.879          | 0.905 | 0.937 | 0.936 | 0.886 | 0.897 | 0.907 | 2.73  |
| 26) t    | Bromochloromethan | 0.149          | 0.139 | 0.147 | 0.139 | 0.132 | 0.129 | 0.139 | 5.53  |
| 27) t    | Chloroform        | 0.689          | 0.650 | 0.663 | 0.669 | 0.613 | 0.610 | 0.649 | 4.88  |
| 28) RT   | 1,1,1-Trichloroet | 0.532          | 0.505 | 0.549 | 0.560 | 0.503 | 0.502 | 0.525 | 4.88  |
| 29) T    | 1,1-Dichloroprope | 0.516          | 0.511 | 0.522 | 0.521 | 0.481 | 0.485 | 0.506 | 3.61  |
| 30) RT   | Carbon Tetrachlor | 0.435          | 0.423 | 0.432 | 0.447 | 0.415 | 0.425 | 0.430 | 2.54  |
| 31) t    | Isopropyl Ether   | 1.329          | 1.244 | 1.283 | 1.277 | 1.216 | 1.242 | 1.265 | 3.15  |
| 32)      | Ethyl-t-butyl eth | 1.078          | 1.081 | 1.115 | 1.116 | 1.038 | 1.032 | 1.077 | 3.33  |
| 33)      | Tert-Amyl methyl  | 0.754          | 0.752 | 0.756 | 0.832 | 0.765 | 0.797 | 0.776 | 4.13  |
| 34) t    | Propionitrile     | 0.039          | 0.038 | 0.040 | 0.038 | 0.036 | 0.036 | 0.038 | 4.49  |
| 35) RT   | Benzene           | 1.273          | 1.204 | 1.227 | 1.396 | 1.192 | 1.215 | 1.251 | 6.09  |
| 36) RT   | 1,2-Dichloroethan | 0.455          | 0.466 | 0.479 | 0.521 | 0.447 | 0.445 | 0.469 | 6.08  |
| 37) RT   | Trichloroethene   | 0.274          | 0.294 | 0.289 | 0.298 | 0.280 | 0.282 | 0.286 | 3.24  |
| 38) Rt   | 1,2-Dichloropropa | 0.327          | 0.333 | 0.348 | 0.369 | 0.346 | 0.345 | 0.345 | 4.21  |
| 39) t    | Methacrylonitrile | 0.245          | 0.216 | 0.203 | 0.189 | 0.173 | 0.179 | 0.201 | 13.33 |
| 40) t    | Methyl acrylate   | 0.256          | 0.272 | 0.265 | 0.262 | 0.245 | 0.252 | 0.259 | 3.70  |
| 41) t    | Tetrahydrofuran   | 0.118          | 0.118 | 0.096 | 0.095 | 0.088 | 0.090 | 0.101 | 13.53 |
| 42) t    | 1-Chlorobutane    | 0.830          | 0.786 | 0.811 | 0.816 | 0.759 | 0.761 | 0.794 | 3.79  |
| 43) T    | Dibromomethane    | 0.176          | 0.199 | 0.189 | 0.193 | 0.177 | 0.180 | 0.186 | 5.10  |
| 44) T    | Bromodichlorometh | 0.406          | 0.421 | 0.412 | 0.448 | 0.431 | 0.435 | 0.425 | 3.70  |
| 45) T    | 4-Methyl-2-Pentan | 0.271          | 0.253 | 0.268 | 0.302 | 0.287 | 0.306 | 0.281 | 7.31  |
| 46) t    | t-1,4-Dichloro-2- | 0.071          | 0.075 | 0.087 | 0.089 | 0.076 | 0.104 | 0.084 | 14.74 |
| 47) t    | Methyl methacryla | 0.154          | 0.155 | 0.173 | 0.187 | 0.182 | 0.188 | 0.173 | 8.94  |
| 48) t    | Ethyl methacrylat | 0.290          | 0.283 | 0.299 | 0.340 | 0.335 | 0.366 | 0.319 | 10.32 |
| 49) Rt   | Toluene           | 0.696          | 0.680 | 0.731 | 0.802 | 0.761 | 0.798 | 0.745 | 6.86  |
| 50) T    | t-1,3-Dichloropro | 0.319          | 0.333 | 0.363 | 0.420 | 0.415 | 0.449 | 0.383 | 13.75 |
| 51) T    | cis-1,3-Dichlorop | 0.401          | 0.415 | 0.441 | 0.477 | 0.470 | 0.499 | 0.450 | 8.44  |
| 52) RT   | 1,1,2-Trichloroet | 0.236          | 0.228 | 0.243 | 0.261 | 0.235 | 0.244 | 0.241 | 4.70  |
| 53) t    | 1,3-Dichloropropa | 0.470          | 0.447 | 0.467 | 0.476 | 0.453 | 0.465 | 0.463 | 2.38  |

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|        | Compound          | 0.5   | 1     | 2     | 5     | 10    | 20    | Avg   | %RSD  |
|--------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 54) t  | 2-Hexanone        | 0.193 | 0.182 | 0.190 | 0.216 | 0.207 | 0.220 | 0.201 | 7.59  |
| 55) t  | Dibromochlorometh | 0.227 | 0.251 | 0.247 | 0.276 | 0.268 | 0.284 | 0.259 | 8.11  |
| 56) T  | 1,2-Dibromoethane | 0.225 | 0.218 | 0.228 | 0.249 | 0.234 | 0.242 | 0.232 | 4.97  |
| 57) S  | 4-Bromofluorobenz | 0.354 | 0.365 | 0.367 | 0.411 | 0.406 | 0.442 | 0.391 | 8.72  |
| 58) RT | Tetrachloroethene | 0.249 | 0.243 | 0.260 | 0.260 | 0.243 | 0.250 | 0.251 | 3.15  |
| 59) Rt | Chlorobenzene     | 0.753 | 0.714 | 0.743 | 0.807 | 0.786 | 0.818 | 0.770 | 5.24  |
| 60) T  | 1,1,1,2-Tetrachlo | 0.235 | 0.245 | 0.258 | 0.279 | 0.263 | 0.278 | 0.260 | 6.79  |
| 61) t  | Pentachloroethane | 0.210 | 0.198 | 0.226 | 0.250 | 0.237 | 0.248 | 0.228 | 9.22  |
| 62) t  | Hexachloroethane  | 0.170 | 0.175 | 0.204 | 0.233 | 0.224 | 0.249 | 0.209 | 15.37 |
| 63) Rt | Ethyl Benzene     | 1.210 | 1.218 | 1.314 | 1.502 | 1.481 | 1.555 | 1.380 | 11.00 |
| 64) RT | m/p-Xylenes       | 0.465 | 0.452 | 0.522 | 0.604 | 0.584 | 0.608 | 0.539 | 12.94 |
| 65) RT | o-Xylene          | 0.422 | 0.458 | 0.494 | 0.574 | 0.544 | 0.579 | 0.512 | 12.57 |
| 66) RT | Styrene           | 0.710 | 0.752 | 0.831 | 0.988 | 0.962 | 1.022 | 0.877 | 14.96 |
| 67) t  | Bromoform         | 0.104 | 0.112 | 0.128 | 0.148 | 0.142 | 0.159 | 0.132 | 16.20 |
| 68) S  | 1,2-Dichlorobenze | 0.357 | 0.346 | 0.372 | 0.398 | 0.393 | 0.428 | 0.382 | 7.86  |
| 69) T  | Isopropylbenzene  | 1.237 | 1.189 | 1.276 | 1.487 | 1.460 | 1.556 | 1.367 | 11.13 |
| 70) T  | 1,1,2,2-Tetrachlo | 0.314 | 0.324 | 0.352 | 0.374 | 0.350 | 0.368 | 0.347 | 6.84  |
| 71) T  | 1,2,3-Trichloropr | 0.254 | 0.207 | 0.260 | 0.280 | 0.293 | 0.273 | 0.261 | 11.46 |
| 72) t  | Bromobenzene      | 0.284 | 0.285 | 0.309 | 0.331 | 0.315 | 0.339 | 0.311 | 7.33  |
| 73) t  | n-propylbenzene   | 0.332 | 0.342 | 0.364 | 0.425 | 0.412 | 0.433 | 0.384 | 11.46 |
| 74) t  | 2-Chlorotoluene   | 0.302 | 0.288 | 0.322 | 0.348 | 0.335 | 0.352 | 0.325 | 7.83  |
| 75) t  | 1,3,5-Trimethylbe | 0.937 | 1.005 | 1.131 | 1.348 | 1.304 | 1.367 | 1.182 | 15.64 |
| 76) t  | 4-Chlorotoluene   | 0.285 | 0.299 | 0.332 | 0.372 | 0.358 | 0.373 | 0.336 | 11.22 |
| 77) t  | tert-Butylbenzene | 1.004 | 0.969 | 1.065 | 1.246 | 1.219 | 1.301 | 1.134 | 12.26 |
| 78) t  | 1,2,4-Trimethylbe | 0.990 | 0.996 | 1.168 | 1.378 | 1.343 | 1.399 | 1.212 | 15.54 |
| 79) t  | sec-Butylbenzene  | 1.352 | 1.436 | 1.567 | 1.784 | 1.732 | 1.815 | 1.614 | 11.95 |
| 80)    | Nitrobenzene      | 0.006 | 0.005 | 0.005 | 0.006 | 0.006 | 0.008 | 0.006 | 20.30 |
| 81) t  | p-Isopropyltoluen | 1.050 | 1.129 | 1.256 | 1.464 | 1.423 | 1.484 | 1.301 | 14.15 |
| 82) t  | 1,3-Dichlorobenze | 0.666 | 0.610 | 0.656 | 0.714 | 0.675 | 0.691 | 0.668 | 5.28  |
| 83) Rt | 1,4-Dichlorobenze | 0.657 | 0.640 | 0.656 | 0.708 | 0.673 | 0.700 | 0.672 | 3.95  |
| 84) t  | n-Butylbenzene    | 1.197 | 1.194 | 1.313 | 1.524 | 1.481 | 1.581 | 1.382 | 12.28 |
| 85) Rt | 1,2-Dichlorobenze | 0.626 | 0.601 | 0.650 | 0.674 | 0.653 | 0.662 | 0.644 | 4.13  |
| 86) t  | 1,2-Dibromo-3-Chl | 0.045 | 0.051 | 0.057 | 0.068 | 0.063 | 0.067 | 0.058 | 15.74 |
| 87) Rt | 1,2,4-Trichlorobe | 0.390 | 0.368 | 0.366 | 0.418 | 0.422 | 0.453 | 0.403 | 8.48  |
| 88) t  | Hexachlorobutadie | 0.181 | 0.172 | 0.173 | 0.193 | 0.183 | 0.197 | 0.183 | 5.53  |
| 89) t  | Naphthalene       | 0.841 | 0.684 | 0.740 | 0.923 | 0.948 | 1.036 | 0.862 | 15.44 |
| 90) t  | 1,2,3-Trichlorobe | 0.365 | 0.330 | 0.364 | 0.408 | 0.394 | 0.422 | 0.380 | 8.88  |

(#) = Out of Range