

Method Path : Z:\VOASRV\HPCHEM1\MSVOA U\METHOD\  
 Method File : 524U033119DW.M  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Sun Mar 31 01:11:51 2019  
 Response Via : Initial Calibration

## Calibration Files

0.5 =VU030573.D 1 =VU030574.D 2 =VU030568.D  
 5 =VU030569.D 10 =VU030570.D 15 =VU030571.D

| Compound |                   | 0.5            | 1     | 2     | 5     | 10    | 15    | Avg   | %RSD  |
|----------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| -----    |                   |                |       |       |       |       |       |       |       |
| 1) i     | Fluorobenzene     | -----ISTD----- |       |       |       |       |       |       |       |
| 2) T     | Dichlorodifluorom | 0.402          | 0.408 | 0.444 | 0.421 | 0.431 | 0.418 | 0.421 | 3.65  |
| 3) t     | Chloromethane     | 0.593          | 0.573 | 0.547 | 0.534 | 0.523 | 0.491 | 0.543 | 6.71  |
| 4) Rt    | Vinyl Chloride    | 0.451          | 0.465 | 0.481 | 0.476 | 0.476 | 0.468 | 0.470 | 2.27  |
| 5) T     | Bromomethane      | 0.218          | 0.193 | 0.220 | 0.200 | 0.194 | 0.191 | 0.203 | 6.52  |
| 6) T     | Chloroethane      | 0.294          | 0.258 | 0.285 | 0.264 | 0.265 | 0.258 | 0.271 | 5.61  |
| 7) T     | Trichlorofluorome | 0.476          | 0.503 | 0.532 | 0.529 | 0.530 | 0.525 | 0.516 | 4.35  |
| 8)       | 1,1,2-Trichloro-1 | 0.255          | 0.260 | 0.272 | 0.261 | 0.264 | 0.259 | 0.262 | 2.22  |
| 9) Rt    | 1,1-Dichloroethen | 0.266          | 0.257 | 0.266 | 0.264 | 0.266 | 0.263 | 0.264 | 1.29  |
| 10) t    | Iodomethane       | 0.103          | 0.092 | 0.202 | 0.236 | 0.261 | 0.258 | 0.192 | 39.67 |
| 11) t    | Allyl Chloride    | 0.525          | 0.574 | 0.609 | 0.587 | 0.581 | 0.571 | 0.574 | 4.82  |
| 12) t    | Acrylonitrile     | 0.076          | 0.083 | 0.076 | 0.071 | 0.073 | 0.071 | 0.075 | 5.88  |
| 13) T    | Acetone           | 0.084          | 0.076 | 0.070 | 0.063 | 0.064 | 0.063 | 0.070 | 11.97 |
| 14) T    | Carbon Disulfide  | 0.930          | 0.957 | 1.001 | 0.965 | 0.970 | 0.958 | 0.963 | 2.37  |
| 15) RT   | Methylene Chlorid | 0.377          | 0.362 | 0.334 | 0.310 | 0.316 | 0.309 | 0.334 | 8.62  |
| 16) RT   | trans-1,2-Dichlor | 0.294          | 0.304 | 0.300 | 0.300 | 0.295 | 0.294 | 0.298 | 1.35  |
| 17) t    | 1,1-Dichloroethan | 0.569          | 0.601 | 0.620 | 0.612 | 0.616 | 0.612 | 0.605 | 3.12  |
| 18) T    | 2-Butanone        | 0.081          | 0.089 | 0.087 | 0.090 | 0.098 | 0.099 | 0.091 | 7.63  |
| 19)      | Cyclohexane       | 0.465          | 0.503 | 0.451 | 0.530 | 0.551 | 0.562 | 0.510 | 8.92  |
| 20)      | Methylcyclohexane | 0.384          | 0.420 | 0.428 | 0.463 | 0.493 | 0.498 | 0.448 | 9.98  |
| 21) T    | 2,2-Dichloropropa | 0.452          | 0.456 | 0.479 | 0.464 | 0.475 | 0.464 | 0.465 | 2.23  |
| 22) RT   | cis-1,2-Dichloroe | 0.304          | 0.322 | 0.319 | 0.319 | 0.327 | 0.328 | 0.320 | 2.71  |
| 23) t    | Diethyl Ether     | 0.250          | 0.247 | 0.252 | 0.246 | 0.254 | 0.254 | 0.251 | 1.29  |
| 24) t    | tert-Butyl Alcoho | 0.027          | 0.029 | 0.024 | 0.024 | 0.026 | 0.026 | 0.026 | 6.49  |
| 25) t    | Methyl tert-Butyl | 0.741          | 0.779 | 0.761 | 0.759 | 0.782 | 0.757 | 0.763 | 1.98  |
| 26) t    | Bromochloromethan | 0.115          | 0.128 | 0.131 | 0.128 | 0.126 | 0.123 | 0.125 | 4.48  |
| 27) t    | Chloroform        | 0.517          | 0.558 | 0.591 | 0.568 | 0.587 | 0.570 | 0.565 | 4.74  |
| 28) RT   | 1,1,1-Trichloroet | 0.433          | 0.461 | 0.473 | 0.476 | 0.486 | 0.469 | 0.466 | 3.91  |
| 29) T    | 1,1-Dichloroprope | 0.398          | 0.406 | 0.408 | 0.426 | 0.437 | 0.435 | 0.418 | 3.92  |
| 30) RT   | Carbon Tetrachlor | 0.364          | 0.376 | 0.393 | 0.391 | 0.412 | 0.401 | 0.389 | 4.39  |
| 31) t    | Isopropyl Ether   | 0.977          | 1.001 | 0.986 | 0.994 | 1.039 | 1.048 | 1.007 | 2.90  |
| 32)      | Ethyl-t-butyl eth | 0.797          | 0.763 | 0.778 | 0.778 | 0.846 | 0.851 | 0.802 | 4.68  |
| 33)      | Tert-Amyl methyl  | 0.570          | 0.603 | 0.605 | 0.650 | 0.710 | 0.717 | 0.643 | 9.43  |
| 34) t    | Propionitrile     | 0.020          | 0.025 | 0.023 | 0.026 | 0.027 | 0.027 | 0.025 | 11.18 |
| 35) RT   | Benzene           | 1.158          | 1.198 | 1.265 | 1.247 | 1.294 | 1.262 | 1.237 | 4.07  |
| 36) RT   | 1,2-Dichloroethan | 0.344          | 0.394 | 0.388 | 0.382 | 0.386 | 0.374 | 0.378 | 4.82  |
| 37) RT   | Trichloroethene   | 0.282          | 0.299 | 0.299 | 0.296 | 0.305 | 0.299 | 0.297 | 2.57  |
| 38) Rt   | 1,2-Dichloropropa | 0.314          | 0.343 | 0.344 | 0.353 | 0.356 | 0.346 | 0.343 | 4.37  |
| 39) t    | Methacrylonitrile | 0.083          | 0.115 | 0.109 | 0.113 | 0.125 | 0.122 | 0.111 | 13.29 |
| 40) t    | Methyl acrylate   | 0.100          | 0.150 | 0.149 | 0.157 | 0.173 | 0.184 | 0.152 | 18.99 |
| 41) t    | Tetrahydrofuran   | 0.068          | 0.069 | 0.057 | 0.060 | 0.062 | 0.064 | 0.063 | 6.96  |
| 42) t    | 1-Chlorobutane    | 0.517          | 0.595 | 0.623 | 0.673 | 0.677 | 0.673 | 0.626 | 10.08 |
| 43) T    | Dibromomethane    | 0.149          | 0.153 | 0.150 | 0.157 | 0.164 | 0.160 | 0.155 | 3.62  |
| 44) T    | Bromodichlorometh | 0.393          | 0.417 | 0.410 | 0.408 | 0.423 | 0.417 | 0.411 | 2.60  |
| 45) T    | 4-Methyl-2-Pentan | 0.207          | 0.208 | 0.201 | 0.207 | 0.228 | 0.231 | 0.214 | 5.91  |
| 46) t    | t-1,4-Dichloro-2- | 0.073          | 0.066 | 0.047 | 0.068 | 0.080 | 0.078 | 0.069 | 17.36 |
| 47) t    | Methyl methacryla | 0.094          | 0.121 | 0.126 | 0.138 | 0.155 | 0.156 | 0.132 | 17.79 |
| 48) t    | Ethyl methacrylat | 0.201          | 0.227 | 0.251 | 0.262 | 0.299 | 0.312 | 0.258 | 16.30 |
| 49) Rt   | Toluene           | 0.582          | 0.621 | 0.687 | 0.694 | 0.745 | 0.739 | 0.678 | 9.58  |
| 50) T    | t-1,3-Dichloropro | 0.275          | 0.334 | 0.325 | 0.359 | 0.390 | 0.385 | 0.345 | 12.41 |
| 51) T    | cis-1,3-Dichlorop | 0.375          | 0.399 | 0.421 | 0.446 | 0.463 | 0.468 | 0.429 | 8.66  |
| 52) RT   | 1,1,2-Trichloroet | 0.200          | 0.207 | 0.218 | 0.209 | 0.220 | 0.216 | 0.212 | 3.54  |
| 53) t    | 1,3-Dichloropropa | 0.371          | 0.366 | 0.393 | 0.391 | 0.406 | 0.396 | 0.387 | 4.02  |

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|        | Compound          | 0.5   | 1     | 2     | 5     | 10    | 15    | Avg   | %RSD  |
|--------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 54) t  | 2-Hexanone        | 0.138 | 0.135 | 0.137 | 0.140 | 0.156 | 0.159 | 0.144 | 7.40  |
| 55) t  | Dibromochlorometh | 0.224 | 0.254 | 0.244 | 0.241 | 0.256 | 0.254 | 0.246 | 4.94  |
| 56) T  | 1,2-Dibromoethane | 0.191 | 0.187 | 0.202 | 0.193 | 0.203 | 0.202 | 0.196 | 3.51  |
| 57) S  | 4-Bromofluorobenz | 0.359 | 0.394 | 0.375 | 0.375 | 0.388 | 0.392 | 0.381 | 3.45  |
| 58) RT | Tetrachloroethene | 0.248 | 0.257 | 0.274 | 0.259 | 0.277 | 0.278 | 0.265 | 4.82  |
| 59) Rt | Chlorobenzene     | 0.632 | 0.664 | 0.755 | 0.771 | 0.797 | 0.778 | 0.733 | 9.25  |
| 60) T  | 1,1,1,2-Tetrachlo | 0.266 | 0.280 | 0.266 | 0.276 | 0.268 | 0.273 | 0.271 | 2.06  |
| 61) t  | Pentachloroethane | 0.205 | 0.212 | 0.200 | 0.213 | 0.218 | 0.209 | 0.209 | 2.97  |
| 62) t  | Hexachloroethane  | 0.169 | 0.177 | 0.176 | 0.189 | 0.192 | 0.190 | 0.182 | 5.07  |
| 63) Rt | Ethyl Benzene     | 1.113 | 1.193 | 1.243 | 1.340 | 1.459 | 1.454 | 1.301 | 10.88 |
| 64) RT | m/p-Xylenes       | 0.371 | 0.437 | 0.458 | 0.523 | 0.532 | 0.534 | 0.476 | 13.78 |
| 65) RT | o-Xylene          | 0.369 | 0.425 | 0.442 | 0.491 | 0.509 | 0.508 | 0.457 | 12.21 |
| 66) RT | Styrene           | 0.553 | 0.676 | 0.748 | 0.855 | 0.903 | 0.890 | 0.771 | 17.95 |
| 67) t  | Bromoform         | 0.120 | 0.137 | 0.129 | 0.135 | 0.144 | 0.143 | 0.134 | 6.71  |
| 68) S  | 1,2-Dichlorobenze | 0.351 | 0.369 | 0.327 | 0.350 | 0.369 | 0.361 | 0.354 | 4.48  |
| 69) T  | Isopropylbenzene  | 1.035 | 1.128 | 1.195 | 1.319 | 1.402 | 1.388 | 1.245 | 11.97 |
| 70) T  | 1,1,2,2-Tetrachlo | 0.283 | 0.314 | 0.297 | 0.294 | 0.298 | 0.293 | 0.296 | 3.44  |
| 71) T  | 1,2,3-Trichloropr | 0.190 | 0.220 | 0.211 | 0.170 | 0.171 | 0.172 | 0.189 | 11.63 |
| 72) t  | Bromobenzene      | 0.275 | 0.298 | 0.294 | 0.301 | 0.316 | 0.308 | 0.299 | 4.70  |
| 73) t  | n-propylbenzene   | 0.238 | 0.285 | 0.308 | 0.343 | 0.378 | 0.362 | 0.319 | 16.38 |
| 74) t  | 2-Chlorotoluene   | 0.242 | 0.272 | 0.297 | 0.315 | 0.328 | 0.320 | 0.296 | 11.19 |
| 75) t  | 1,3,5-Trimethylbe | 0.807 | 0.933 | 1.014 | 1.146 | 1.192 | 1.185 | 1.046 | 14.90 |
| 76) t  | 4-Chlorotoluene   | 0.252 | 0.276 | 0.279 | 0.325 | 0.335 | 0.338 | 0.301 | 12.10 |
| 77) t  | tert-Butylbenzene | 0.845 | 0.905 | 0.943 | 1.040 | 1.110 | 1.101 | 0.991 | 11.03 |
| 78) t  | 1,2,4-Trimethylbe | 0.807 | 0.898 | 0.987 | 1.129 | 1.200 | 1.202 | 1.037 | 15.95 |
| 79) t  | sec-Butylbenzene  | 1.066 | 1.213 | 1.319 | 1.442 | 1.516 | 1.523 | 1.346 | 13.54 |
| 80)    | Nitrobenzene      |       |       | 0.002 | 0.003 | 0.005 | 0.005 | 0.004 | 36.49 |
| 81) t  | p-Isopropyltoluen | 0.803 | 0.900 | 0.972 | 1.134 | 1.199 | 1.198 | 1.034 | 16.13 |
| 82) t  | 1,3-Dichlorobenze | 0.565 | 0.582 | 0.582 | 0.614 | 0.625 | 0.613 | 0.597 | 3.96  |
| 83) Rt | 1,4-Dichlorobenze | 0.587 | 0.574 | 0.581 | 0.607 | 0.626 | 0.613 | 0.598 | 3.40  |
| 84) t  | n-Butylbenzene    | 0.810 | 0.893 | 0.926 | 1.035 | 1.167 | 1.170 | 1.000 | 14.90 |
| 85) Rt | 1,2-Dichlorobenze | 0.547 | 0.555 | 0.549 | 0.564 | 0.585 | 0.569 | 0.562 | 2.56  |
| 86) t  | 1,2-Dibromo-3-Chl | 0.042 | 0.043 | 0.041 | 0.043 | 0.046 | 0.046 | 0.043 | 4.50  |
| 87) Rt | 1,2,4-Trichlorobe | 0.293 | 0.298 | 0.278 | 0.327 | 0.357 | 0.370 | 0.321 | 11.58 |
| 88) t  | Hexachlorobutadie | 0.194 | 0.193 | 0.194 | 0.208 | 0.215 | 0.209 | 0.202 | 4.92  |
| 89) t  | Naphthalene       | 0.665 | 0.435 | 0.428 | 0.528 | 0.637 | 0.665 | 0.560 | 19.91 |
| 90) t  | 1,2,3-Trichlorobe | 0.293 | 0.269 | 0.283 | 0.310 | 0.337 | 0.334 | 0.304 | 9.13  |

(#) = Out of Range