

Method Path : Z:\HPCHEM1\BNA\_G\METHODS\  
 Method File : SOM02.2-EPA-BG012716.M  
 Title : SVOA CALIBRATION  
 Last Update : Wed Jan 27 17:29:07 2016  
 Response Via : Initial Calibration

## Calibration Files

5 =BG020760.D 10 =BG020761.D 20 =BG020762.D  
 40 =BG020763.D 80 =BG020764.D 160 =BG020765.D

|       | Compound              | 5              | 10    | 20    | 40    | 80    | 160   | Avg   | %RSD   |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|--------|
| 1) I  | 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |        |
| 2)    | 1,4-Dioxane           | 0.703          | 0.674 | 0.541 | 0.472 | 0.462 |       | 0.570 | 19.76  |
| 3) S  | 1,4-Dioxane-d8        | 0.393          | 0.447 | 0.442 | 0.405 | 0.399 |       | 0.417 | 6.07   |
| 4)    | Benzaldehyde          |                | 1.238 | 1.303 | 1.273 | 1.216 | 0.713 | 1.149 | 21.41  |
| 5) S  | Phenol-d5             |                | 1.895 | 2.004 | 2.049 | 2.182 | 2.106 | 2.047 | 5.28   |
| 6)    | Phenol                |                | 2.055 | 2.147 | 2.219 | 2.256 | 2.177 | 2.171 | 3.53   |
| 7) S  | Bis-(2-Chloroethy     |                | 1.076 | 1.089 | 1.073 | 1.068 | 1.027 | 1.067 | 2.22   |
| 8)    | Bis(2-Chloroethyl     |                | 1.592 | 1.681 | 1.645 | 1.653 | 1.560 | 1.626 | 3.03   |
| 9) S  | 2-Chlorophenol-d4     | 1.425          | 1.476 | 1.553 | 1.574 | 1.658 |       | 1.537 | 5.88   |
| 10)   | 2-Chlorophenol        | 1.460          | 1.565 | 1.620 | 1.645 | 1.698 |       | 1.598 | 5.65   |
| 11)   | 2-Methylphenol        |                | 1.622 | 1.718 | 1.751 | 1.794 | 1.730 | 1.723 | 3.70   |
| 12)   | 2,2'-oxybis(1-Chl     |                | 1.863 | 1.864 | 1.793 | 1.793 | 1.673 | 1.797 | 4.33   |
| 13) S | 4-Methylphenol-d8     |                | 1.636 | 1.778 | 1.808 | 1.854 | 1.755 | 1.766 | 4.63   |
| 14)   | Acetophenone          |                | 2.764 | 2.827 | 2.766 | 2.749 | 2.546 | 2.730 | 3.93   |
| 15) P | N-Nitroso-di-n-pr     | 1.252          | 1.406 | 1.437 | 1.425 | 1.382 |       | 1.380 | 5.40   |
| 16)   | 4-Methylphenol        |                | 1.870 | 1.958 | 1.967 | 1.977 | 1.867 | 1.928 | 2.84   |
| 17)   | Hexachloroethane      | 0.520          | 0.567 | 0.578 | 0.563 | 0.572 |       | 0.560 | 4.12   |
| 18) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |        |
| 19) S | Nitrobenzene-d5       | 0.094          | 0.116 | 0.127 | 0.131 | 0.142 |       | 0.122 | 14.72  |
| 20)   | Nitrobenzene          | 0.234          | 0.267 | 0.295 | 0.305 | 0.314 |       | 0.283 | 11.52  |
| 21)   | Isophorone            | 0.719          | 0.759 | 0.782 | 0.756 | 0.720 |       | 0.747 | 3.63   |
| 22) S | 2-Nitrophenol-d4      | 0.082          | 0.094 | 0.106 | 0.117 | 0.136 |       | 0.107 | 19.53  |
| 23) C | 2-Nitrophenol         | 0.095          | 0.107 | 0.130 | 0.151 | 0.167 |       | 0.130 | 23.11# |
| 24)   | 2,4-Dimethylpheno     | 0.326          | 0.357 | 0.381 | 0.373 | 0.365 |       | 0.361 | 5.85   |
| 25)   | Bis(2-Chloroethox     | 0.453          | 0.475 | 0.495 | 0.473 | 0.460 |       | 0.471 | 3.40   |
| 26) S | 2,4-Dichloropheno     | 0.252          | 0.283 | 0.308 | 0.309 | 0.309 |       | 0.292 | 8.52   |
| 27) C | 2,4-Dichloropheno     | 0.275          | 0.304 | 0.322 | 0.325 | 0.321 |       | 0.309 | 6.74   |
| 28)   | Naphthalene           | 1.118          | 1.125 | 1.162 | 1.098 | 1.075 |       | 1.116 | 2.91   |
| 29) S | 4-Chloroaniline-d     |                | 0.392 | 0.464 | 0.459 | 0.410 | 0.328 | 0.411 | 13.58  |
| 30)   | 4-Chloroaniline       |                | 0.420 | 0.498 | 0.487 | 0.432 | 0.347 | 0.437 | 13.88  |
| 31) C | Hexachlorobutadie     | 0.150          | 0.157 | 0.160 | 0.150 | 0.149 |       | 0.153 | 3.33   |
| 32)   | Caprolactam           |                | 0.127 | 0.139 | 0.132 | 0.123 | 0.110 | 0.126 | 8.66   |
| 33) C | 4-Chloro-3-methyl     | 0.336          | 0.371 | 0.391 | 0.382 | 0.363 |       | 0.368 | 5.73   |
| 34)   | 2-Methylnaphthale     | 0.850          | 0.859 | 0.905 | 0.856 | 0.821 |       | 0.858 | 3.52   |
| 35)   | 1-Methylnaphthale     | 0.817          | 0.835 | 0.856 | 0.815 | 0.776 |       | 0.820 | 3.62   |
| 36) I | Acenaphthene-d10      | -----ISTD----- |       |       |       |       |       |       |        |
| 37)   | 1,2,4,5-Tetrachlo     | 0.526          | 0.547 | 0.585 | 0.578 | 0.586 |       | 0.565 | 4.69   |
| 38)   | Hexachlorocyclope     |                | 0.268 | 0.285 | 0.291 | 0.315 | 0.341 | 0.300 | 9.52   |
| 39) C | 2,4,6-Trichloroph     | 0.328          | 0.358 | 0.391 | 0.394 | 0.398 |       | 0.374 | 8.09   |
| 40)   | 2,4,5-Trichloroph     | 0.375          | 0.400 | 0.437 | 0.434 | 0.431 |       | 0.415 | 6.48   |
| 41)   | 1,1'-Biphenyl         | 1.696          | 1.728 | 1.825 | 1.754 | 1.710 |       | 1.743 | 2.90   |
| 42)   | 2-Chloronaphthale     | 1.237          | 1.296 | 1.331 | 1.295 | 1.266 |       | 1.285 | 2.75   |
| 43)   | 2-Nitroaniline        | 0.156          | 0.215 | 0.253 | 0.288 | 0.306 |       | 0.243 | 24.65  |
| 44) S | Dimethylphthalate     | 1.696          | 1.750 | 1.799 | 1.699 | 1.599 |       | 1.708 | 4.36   |
| 45)   | Dimethylphthalate     | 1.776          | 1.866 | 1.868 | 1.753 | 1.652 |       | 1.783 | 5.03   |
| 46)   | 2,6-Dinitrotoluen     | 0.157          | 0.199 | 0.246 | 0.279 | 0.304 |       | 0.237 | 25.10  |
| 47) S | Acenaphthylene-d8     | 1.999          | 2.092 | 2.182 | 2.101 | 2.036 |       | 2.082 | 3.35   |
| 48)   | Acenaphthylene        | 2.253          | 2.317 | 2.417 | 2.314 | 2.199 |       | 2.300 | 3.55   |
| 49)   | 3-Nitroaniline        |                | 0.269 | 0.329 | 0.359 | 0.345 | 0.305 | 0.321 | 10.95  |
| 50) C | Acenaphthene          | 1.574          | 1.630 | 1.657 | 1.603 | 1.544 |       | 1.602 | 2.80   |
| 51)   | 2,4-Dinitrophenol     |                | 0.082 | 0.087 | 0.100 | 0.120 | 0.137 | 0.105 | 21.83  |

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|       | Compound          | 5              | 10    | 20    | 40    | 80    | 160   | Avg   | %RSD  |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 52) S | 4-Nitrophenol-d4  |                | 0.259 | 0.297 | 0.322 | 0.324 | 0.310 | 0.302 | 8.78  |
| 53)   | 4-Nitrophenol     |                | 0.150 | 0.173 | 0.177 | 0.177 | 0.167 | 0.169 | 6.56  |
| 54)   | Dibenzofuran      | 2.122          | 2.143 | 2.190 | 2.065 | 1.947 |       | 2.093 | 4.45  |
| 55)   | 2,4-Dinitrotoluen | 0.223          | 0.289 | 0.346 | 0.392 | 0.419 |       | 0.334 | 23.71 |
| 56)   | 2,3,4,6-Tetrachlo | 0.305          | 0.352 | 0.379 | 0.383 | 0.374 |       | 0.359 | 9.04  |
| 57)   | Diethylphthalate  | 1.912          | 1.996 | 1.972 | 1.835 | 1.708 |       | 1.885 | 6.19  |
| 58) S | Fluorene-d10      | 1.520          | 1.534 | 1.551 | 1.463 | 1.399 |       | 1.493 | 4.18  |
| 59)   | Fluorene          | 1.850          | 1.877 | 1.924 | 1.801 | 1.692 |       | 1.829 | 4.83  |
| 60)   | 4-Chlorophenyl-ph | 0.808          | 0.814 | 0.824 | 0.781 | 0.739 |       | 0.793 | 4.31  |
| 61)   | 4-Nitroaniline    |                | 0.346 | 0.416 | 0.419 | 0.408 | 0.356 | 0.389 | 9.02  |
| 62) I | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |
| 63) S | 4,6-Dinitro-2-met |                | 0.045 | 0.054 | 0.065 | 0.078 | 0.089 | 0.066 | 26.86 |
| 64)   | 4,6-Dinitro-2-met |                | 0.050 | 0.063 | 0.079 | 0.095 | 0.103 | 0.078 | 27.83 |
| 65)   | N-Nitrosodiphenyl | 0.631          | 0.670 | 0.687 | 0.673 | 0.674 |       | 0.667 | 3.17  |
| 66)   | 4-Bromophenyl-phe | 0.201          | 0.211 | 0.217 | 0.215 | 0.222 |       | 0.213 | 3.84  |
| 67)   | Hexachlorobenzene | 0.225          | 0.231 | 0.246 | 0.237 | 0.245 |       | 0.237 | 3.80  |
| 68)   | Atrazine          |                | 0.212 | 0.236 | 0.222 | 0.223 | 0.209 | 0.220 | 4.83  |
| 69) C | Pentachlorophenol |                | 0.115 | 0.132 | 0.138 | 0.146 | 0.151 | 0.136 | 10.33 |
| 70)   | Phenanthrene      | 1.230          | 1.269 | 1.317 | 1.243 | 1.221 |       | 1.256 | 3.08  |
| 71) S | Anthracene-d10    | 0.968          | 1.008 | 1.019 | 0.967 | 0.955 |       | 0.984 | 2.86  |
| 72)   | Anthracene        | 1.236          | 1.282 | 1.318 | 1.245 | 1.198 |       | 1.256 | 3.65  |
| 73)   | 1,2,3,4-Tetrachlo | 0.208          | 0.217 | 0.243 | 0.250 | 0.269 |       | 0.237 | 10.48 |
| 74)   | Pentachlorobenzen | 0.224          | 0.232 | 0.249 | 0.254 | 0.264 |       | 0.244 | 6.63  |
| 75)   | Carbazole         |                | 1.151 | 1.205 | 1.125 | 1.092 | 0.999 | 1.114 | 6.88  |
| 76)   | Di-n-butylphthala | 1.257          | 1.296 | 1.425 | 1.349 | 1.346 |       | 1.334 | 4.75  |
| 77) C | Fluoranthene      |                | 1.328 | 1.397 | 1.297 | 1.266 | 1.164 | 1.290 | 6.66  |
| 78) I | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |
| 79) S | Pyrene-d10        | 1.044          | 1.102 | 1.129 | 1.084 | 1.069 |       | 1.086 | 2.97  |
| 80)   | Pyrene            | 1.500          | 1.559 | 1.590 | 1.490 | 1.421 |       | 1.512 | 4.33  |
| 81)   | Butylbenzylphthal | 0.516          | 0.576 | 0.615 | 0.619 | 0.642 |       | 0.594 | 8.31  |
| 82)   | 3,3'-Dichlorobenz |                | 0.423 | 0.453 | 0.460 | 0.445 | 0.358 | 0.428 | 9.61  |
| 83)   | Benzo(a)anthracen | 1.250          | 1.295 | 1.345 | 1.282 | 1.268 |       | 1.288 | 2.79  |
| 84)   | Bis(2-ethylhexyl) | 0.821          | 0.891 | 0.945 | 0.952 | 0.987 |       | 0.919 | 7.03  |
| 85)   | Chrysene          | 1.179          | 1.199 | 1.244 | 1.182 | 1.178 |       | 1.196 | 2.34  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |
| 87)   | Di-n-octyl phthal |                | 1.532 | 1.622 | 1.646 | 1.665 | 1.606 | 1.614 | 3.16  |
| 88)   | Benzo(b)fluoranth | 1.227          | 1.307 | 1.344 | 1.343 | 1.331 |       | 1.310 | 3.72  |
| 89)   | Benzo(k)fluoranth | 1.208          | 1.317 | 1.339 | 1.278 | 1.276 |       | 1.284 | 3.90  |
| 90) S | Benzo(a)pyrene-d1 | 1.002          | 1.063 | 1.115 | 1.088 | 1.092 |       | 1.072 | 4.04  |
| 91) C | Benzo(a)pyrene    | 1.194          | 1.263 | 1.297 | 1.265 | 1.248 |       | 1.254 | 3.01  |
| 92)   | Indeno(1,2,3-cd)p | 1.378          | 1.444 | 1.497 | 1.495 | 1.512 |       | 1.465 | 3.78  |
| 93)   | Dibenzo(a,h)anthr | 1.135          | 1.200 | 1.257 | 1.228 | 1.232 |       | 1.211 | 3.86  |
| 94)   | Benzo(g,h,i)peryl | 1.126          | 1.196 | 1.234 | 1.224 | 1.235 |       | 1.203 | 3.82  |

(#) = Out of Range