

Method Path : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\  
 Method File : 8270-BM082120.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Mon Dec 03 04:47:00 2018  
 Response Via : Initial Calibration

## Calibration Files

5 =BM027164.D 10 =BM027165.D 20 =BM027166.D 40 =BM027167.D 50 =BM027168.D 60 =BM027169.D 80 =BM027170.D

| Compound                   | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.518          | 0.576 | 0.487 | 0.449 | 0.451 | 0.491 | 0.460 | 0.490 | 9.25  |
| 3) Pyridine                | 1.169          | 1.586 | 1.392 | 1.325 | 1.373 | 1.427 | 1.361 | 1.376 | 9.03  |
| 4) n-Nitrosodimet...       | 0.639          | 0.749 | 0.603 | 0.559 | 0.559 | 0.557 | 0.535 | 0.600 | 12.39 |
| 5) S 2-Fluorophenol        | 0.984          | 0.924 | 1.048 | 1.001 | 1.059 | 1.106 | 1.060 | 1.026 | 5.89  |
| 6) Aniline                 | 1.767          | 1.769 | 1.606 | 1.138 | 1.650 | 1.685 | 1.586 | 1.600 | 13.50 |
| 7) S Phenol-d6             | 1.416          | 1.512 | 1.420 | 1.023 | 1.493 | 1.533 | 1.464 | 1.409 | 12.48 |
| 8) 2-Chlorophenol          | 1.174          | 1.203 | 1.056 | 0.773 | 1.099 | 1.108 | 1.061 | 1.068 | 13.21 |
| 9) Benzaldehyde            | 1.092          | 1.205 | 1.056 | 0.680 | 0.956 | 0.936 | 0.825 | 0.964 | 18.14 |
| 10) C Phenol               | 1.522          | 1.457 | 1.316 | 0.952 | 1.379 | 1.418 | 1.354 | 1.342 | 13.80 |
| 11) bis(2-Chloroet...      | 1.192          | 1.243 | 1.083 | 0.777 | 1.142 | 1.158 | 1.087 | 1.097 | 13.86 |
| 12) 1,3-Dichlorobe...      | 1.768          | 1.641 | 1.429 | 1.358 | 1.421 | 1.456 | 1.386 | 1.494 | 10.14 |
| 13) C 1,4-Dichlorobe...    | 1.696          | 1.663 | 1.479 | 1.385 | 1.446 | 1.476 | 1.409 | 1.508 | 8.14  |
| 14) 1,2-Dichlorobe...      | 1.642          | 1.605 | 1.385 | 1.309 | 1.371 | 1.373 | 1.324 | 1.430 | 9.48  |
| 15) Benzyl Alcohol         | 1.342          | 1.358 | 1.234 | 1.208 | 1.291 | 1.300 | 1.229 | 1.280 | 4.56  |
| 16) 2,2'-oxybis(1-...      | 0.852          | 0.957 | 0.839 | 0.828 | 0.921 | 0.913 | 0.853 | 0.880 | 5.61  |
| 17) 2-Methylphenol         | 0.964          | 0.969 | 0.904 | 0.871 | 0.940 | 0.952 | 0.902 | 0.929 | 3.96  |
| 18) Hexachloroethane       | 0.708          | 0.691 | 0.603 | 0.555 | 0.575 | 0.585 | 0.566 | 0.612 | 10.11 |
| 19) P n-Nitroso-di-n...    | 1.095          | 1.135 | 1.046 | 1.027 | 1.118 | 1.105 | 1.043 | 1.081 | 3.90  |
| 20) 3+4-Methylphenols      | 1.191          | 1.299 | 1.195 | 1.186 | 1.298 | 1.293 | 1.239 | 1.243 | 4.27  |
|                            |                |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.583          | 0.580 | 0.523 | 0.490 | 0.509 | 0.533 | 0.544 | 0.538 | 6.43  |
| 23) S Nitrobenzene-d5      | 0.542          | 0.529 | 0.468 | 0.447 | 0.450 | 0.479 | 0.477 | 0.485 | 7.66  |
| 24) Nitrobenzene           | 0.565          | 0.555 | 0.484 | 0.448 | 0.445 | 0.471 | 0.466 | 0.491 | 10.05 |
| 25) Isophorone             | 0.766          | 0.727 | 0.671 | 0.670 | 0.689 | 0.728 | 0.719 | 0.710 | 4.95  |
| 26) C 2-Nitrophenol        | 0.153          | 0.142 | 0.138 | 0.143 | 0.154 | 0.168 | 0.173 | 0.153 | 8.66  |
| 27) 2,4-Dimethylph...      | 0.244          | 0.248 | 0.232 | 0.222 | 0.226 | 0.245 | 0.246 | 0.238 | 4.51  |
| 28) bis(2-Chloroet...      | 0.443          | 0.449 | 0.416 | 0.408 | 0.420 | 0.448 | 0.449 | 0.433 | 4.08  |
| 29) C 2,4-Dichloroph...    | 0.353          | 0.334 | 0.315 | 0.311 | 0.322 | 0.341 | 0.346 | 0.332 | 4.89  |
| 30) 1,2,4-Trichlor...      | 0.529          | 0.472 | 0.417 | 0.394 | 0.392 | 0.419 | 0.425 | 0.435 | 11.25 |
| 31) Naphthalene            | 1.151          | 1.077 | 0.965 | 0.928 | 0.956 | 1.007 | 1.011 | 1.014 | 7.65  |
| 32) Benzoic acid           | 0.125          | 0.132 | 0.147 | 0.177 | 0.187 | 0.210 | 0.214 | 0.170 | 21.23 |
| 33) 4-Chloroaniline        | 0.423          | 0.424 | 0.400 | 0.400 | 0.414 | 0.435 | 0.435 | 0.419 | 3.53  |
| 34) C Hexachlorobuta...    | 0.416          | 0.350 | 0.302 | 0.274 | 0.274 | 0.290 | 0.291 | 0.314 | 16.57 |
| 35) Caprolactam            | 0.066          | 0.082 | 0.086 | 0.090 | 0.098 | 0.103 | 0.104 | 0.090 | 14.85 |
| 36) C 4-Chloro-3-met...    | 0.340          | 0.337 | 0.331 | 0.333 | 0.340 | 0.359 | 0.360 | 0.343 | 3.48  |
| 37) 2-Methylnaphth...      | 0.847          | 0.777 | 0.747 | 0.717 | 0.732 | 0.775 | 0.778 | 0.768 | 5.50  |
| 38) 1-Methylnaphth...      | 0.836          | 0.767 | 0.711 | 0.685 | 0.699 | 0.733 | 0.740 | 0.739 | 6.88  |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\SVOASRV\HPCHEM1\BNA_M\METHODS\ |                   |                |       |       |       |       |       |       |       |       |
| Method File : 8270-BM082120.M                   |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.783          | 0.719 | 0.663 | 0.619 | 0.788 | 0.672 | 0.687 | 0.704 | 8.92  |
| 41) P                                           | Hexachlorocycl... | 0.403          | 0.383 | 0.355 | 0.354 | 0.446 | 0.386 | 0.400 | 0.389 | 8.09  |
| 42) S                                           | 2,4,6-Tribromo... | 0.318          | 0.325 | 0.304 | 0.305 | 0.352 | 0.329 | 0.335 | 0.324 | 5.20  |
| 43) C                                           | 2,4,6-Trichlor... | 0.436          | 0.426 | 0.393 | 0.398 | 0.503 | 0.443 | 0.445 | 0.435 | 8.41  |
| 44)                                             | 2,4,5-Trichlor... | 0.482          | 0.459 | 0.425 | 0.417 | 0.528 | 0.456 | 0.460 | 0.461 | 8.03  |
| 45) S                                           | 2-Fluorobiphenyl  | 1.670          | 1.568 | 1.405 | 1.354 | 1.706 | 1.468 | 1.487 | 1.523 | 8.65  |
| 46)                                             | 1,1'-Biphenyl     | 1.593          | 1.547 | 1.401 | 1.356 | 1.691 | 1.449 | 1.456 | 1.499 | 7.81  |
| 47)                                             | 2-Chloronaphth... | 1.344          | 1.333 | 1.196 | 1.143 | 1.447 | 1.232 | 1.253 | 1.278 | 8.06  |
| 48)                                             | 2-Nitroaniline    | 0.356          | 0.387 | 0.372 | 0.395 | 0.493 | 0.424 | 0.428 | 0.408 | 11.15 |
| 49)                                             | Acenaphthylene    | 1.829          | 1.836 | 1.678 | 1.677 | 1.761 | 1.818 | 1.842 | 1.777 | 4.11  |
| 50)                                             | Dimethylphthalate | 1.740          | 1.722 | 1.559 | 1.506 | 1.669 | 1.586 | 1.584 | 1.624 | 5.41  |
| 51)                                             | 2,6-Dinitrotol... | 0.295          | 0.328 | 0.302 | 0.313 | 0.345 | 0.337 | 0.338 | 0.323 | 6.01  |
| 52) C                                           | Acenaphthene      | 1.202          | 1.190 | 1.086 | 1.062 | 1.079 | 1.135 | 1.144 | 1.128 | 4.87  |
| 53)                                             | 3-Nitroaniline    | 0.270          | 0.290 | 0.285 | 0.321 | 0.318 | 0.347 | 0.350 | 0.311 | 9.98  |
| 54) P                                           | 2,4-Dinitrophenol | 0.142          | 0.150 | 0.154 | 0.163 | 0.184 | 0.190 | 0.197 | 0.169 | 12.88 |
| 55)                                             | Dibenzofuran      | 2.051          | 2.028 | 1.805 | 1.760 | 1.808 | 1.857 | 1.849 | 1.880 | 6.05  |
| 56) P                                           | 4-Nitrophenol     | 0.202          | 0.235 | 0.237 | 0.247 | 0.256 | 0.281 | 0.282 | 0.248 | 11.22 |
| 57)                                             | 2,4-Dinitrotol... | 0.407          | 0.429 | 0.422 | 0.445 | 0.462 | 0.487 | 0.487 | 0.449 | 7.03  |
| 58)                                             | Fluorene          | 1.594          | 1.604 | 1.488 | 1.472 | 1.532 | 1.582 | 1.590 | 1.552 | 3.51  |
| 59)                                             | 2,3,4,6-Tetrac... | 0.459          | 0.461 | 0.421 | 0.423 | 0.486 | 0.454 | 0.458 | 0.452 | 5.05  |
| 60)                                             | Diethylphthalate  | 1.698          | 1.692 | 1.561 | 1.541 | 1.561 | 1.619 | 1.604 | 1.611 | 3.95  |
| 61)                                             | 4-Chlorophenyl... | 0.998          | 0.919 | 0.830 | 0.815 | 0.913 | 0.877 | 0.886 | 0.891 | 6.85  |
| 62)                                             | 4-Nitroaniline    | 0.273          | 0.322 | 0.334 | 0.357 | 0.366 | 0.397 | 0.397 | 0.349 | 12.63 |
| 63)                                             | Azobenzene        | 1.787          | 1.760 | 1.622 | 1.596 | 1.534 | 1.637 | 1.633 | 1.653 | 5.44  |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... | 0.091          | 0.098 | 0.087 | 0.092 | 0.101 | 0.105 | 0.113 | 0.098 | 9.14  |
| 66) c                                           | n-Nitrosodiphe... | 0.585          | 0.642 | 0.533 | 0.528 | 0.534 | 0.568 | 0.587 | 0.568 | 7.25  |
| 67)                                             | 4-Bromophenyl-... | 0.257          | 0.264 | 0.223 | 0.220 | 0.241 | 0.239 | 0.246 | 0.241 | 6.71  |
| 68)                                             | Hexachlorobenzene | 0.311          | 0.316 | 0.270 | 0.259 | 0.283 | 0.279 | 0.290 | 0.287 | 7.14  |
| 69)                                             | Atrazine          | 0.226          | 0.224 | 0.203 | 0.201 | 0.214 | 0.216 | 0.222 | 0.215 | 4.65  |
| 70) C                                           | Pentachlorophenol | 0.143          | 0.154 | 0.143 | 0.146 | 0.166 | 0.163 | 0.172 | 0.155 | 7.57  |
| 71)                                             | Phenanthrene      | 1.165          | 1.200 | 1.058 | 1.038 | 1.065 | 1.116 | 1.140 | 1.112 | 5.43  |
| 72)                                             | Anthracene        | 1.050          | 1.160 | 1.013 | 1.001 | 1.031 | 1.078 | 1.108 | 1.063 | 5.32  |
| 73)                                             | Carbazole         | 0.948          | 1.060 | 0.931 | 0.928 | 0.938 | 1.012 | 1.028 | 0.978 | 5.54  |
| 74)                                             | Di-n-butylphth... | 1.043          | 1.168 | 1.066 | 1.097 | 1.107 | 1.193 | 1.230 | 1.129 | 6.12  |
| 75) C                                           | Fluoranthene      | 1.405          | 1.506 | 1.304 | 1.296 | 1.393 | 1.388 | 1.430 | 1.389 | 5.21  |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.324          | 0.383 | 0.327 | 0.379 | 0.334 | 0.354 | 0.329 | 0.347 | 7.23  |
| 78)                                             | Pyrene            | 1.210          | 1.244 | 1.131 | 1.173 | 1.163 | 1.298 | 1.300 | 1.217 | 5.44  |
| 79) S                                           | Terphenyl-d14     | 1.107          | 1.079 | 0.983 | 1.018 | 1.034 | 1.127 | 1.146 | 1.071 | 5.67  |
| 80)                                             | Butylbenzylpht... | 0.385          | 0.405 | 0.417 | 0.452 | 0.427 | 0.512 | 0.516 | 0.445 | 11.57 |
| 81)                                             | Benzo(a)anthra... | 1.377          | 1.341 | 1.222 | 1.232 | 1.239 | 1.330 | 1.331 | 1.296 | 4.86  |
| 82)                                             | 3,3'-Dichlorob... | 0.440          | 0.440 | 0.415 | 0.442 | 0.456 | 0.482 | 0.485 | 0.452 | 5.56  |
| 83)                                             | Chrysene          | 1.393          | 1.317 | 1.178 | 1.178 | 1.189 | 1.275 | 1.279 | 1.259 | 6.48  |
| 84)                                             | Bis(2-ethylhex... | 0.551          | 0.594 | 0.598 | 0.651 | 0.600 | 0.720 | 0.718 | 0.633 | 10.37 |
| 85) c                                           | Di-n-octyl pht... | 0.900          | 0.966 | 0.993 | 1.067 | 1.002 | 1.193 | 1.191 | 1.044 | 10.75 |

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Method File : 8270-BM082120.M

| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |       |  |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 87)   | Indeno(1,2,3-c... | 1.945 | 1.651 | 1.408 | 1.408 | 1.434 | 1.532 | 1.579 | 1.565 | 12.21 |  |
| 88)   | Benzo(b)fluora... | 1.312 | 1.325 | 1.223 | 1.299 | 1.342 | 1.411 | 1.422 | 1.334 | 5.09  |  |
| 89)   | Benzo(k)fluora... | 1.349 | 1.308 | 1.233 | 1.228 | 1.277 | 1.356 | 1.390 | 1.306 | 4.80  |  |
| 90) C | Benzo(a)pyrene    | 1.248 | 1.206 | 1.124 | 1.160 | 1.204 | 1.276 | 1.305 | 1.218 | 5.24  |  |
| 91)   | Dibenzo(a,h)an... | 1.628 | 1.383 | 1.171 | 1.161 | 1.188 | 1.272 | 1.317 | 1.303 | 12.69 |  |
| 92)   | Benzo(g,h,i)pe... | 1.633 | 1.332 | 1.121 | 1.112 | 1.130 | 1.214 | 1.242 | 1.255 | 14.72 |  |

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(#) = Out of Range