

Method Path : Z:\SVOASRV\HPCHEM1\BNA M\METHODS\  
 Method File : 8270-BM070518.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Thu Jul 05 17:39:50 2018  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BM015764.D 10 =BM015765.D 25 =BM015766.D 40 =BM015767.D 50 =BM015768.D 60 =BM015769.D 80 =BM015770.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.496          | 0.484 | 0.494 | 0.470 | 0.481 | 0.482 | 0.470 | 0.482 | 2.13  |
| 3)    | Pyridine              | 1.052          | 1.244 | 1.312 | 1.314 | 1.324 | 1.362 | 1.302 | 1.273 | 8.14  |
| 4)    | n-Nitrosodimet...     | 0.979          | 0.975 | 0.975 | 0.979 | 1.004 | 1.021 | 1.005 | 0.991 | 1.88  |
| 5) S  | 2-Fluorophenol        | 1.000          | 1.106 | 1.182 | 1.180 | 1.209 | 1.244 | 1.242 | 1.166 | 7.45  |
| 6)    | Aniline               | 1.672          | 1.876 | 1.998 | 1.964 | 1.998 | 2.044 | 1.998 | 1.936 | 6.58  |
| 7) S  | Phenol-d6             | 1.303          | 1.514 | 1.622 | 1.636 | 1.664 | 1.733 | 1.705 | 1.597 | 9.22  |
| 8)    | 2-Chlorophenol        | 1.226          | 1.350 | 1.417 | 1.422 | 1.450 | 1.481 | 1.451 | 1.400 | 6.20  |
| 9)    | Benzaldehyde          | 1.127          | 1.145 | 1.120 | 1.011 | 0.906 | 0.925 | 0.809 | 1.006 | 12.99 |
| 10) C | Phenol                | 1.365          | 1.538 | 1.638 | 1.634 | 1.658 | 1.712 | 1.685 | 1.604 | 7.41  |
| 11)   | bis(2-Chloroet...     | 1.235          | 1.310 | 1.287 | 1.311 | 1.324 | 1.355 | 1.313 | 1.305 | 2.84  |
| 12)   | 1,3-Dichlorobe...     | 1.502          | 1.513 | 1.569 | 1.532 | 1.566 | 1.607 | 1.575 | 1.552 | 2.41  |
| 13) C | 1,4-Dichlorobe...     | 1.609          | 1.588 | 1.608 | 1.566 | 1.601 | 1.647 | 1.615 | 1.605 | 1.55  |
| 14)   | 1,2-Dichlorobe...     | 1.455          | 1.529 | 1.570 | 1.534 | 1.570 | 1.620 | 1.587 | 1.552 | 3.39  |
| 15)   | Benzyl Alcohol        | 1.218          | 1.307 | 1.397 | 1.402 | 1.443 | 1.480 | 1.456 | 1.386 | 6.69  |
| 16)   | 2,2'-oxybis(1-...     | 1.358          | 1.414 | 1.467 | 1.444 | 1.434 | 1.456 | 1.403 | 1.425 | 2.62  |
| 17)   | 2-Methylphenol        | 0.928          | 1.077 | 1.148 | 1.119 | 1.161 | 1.188 | 1.158 | 1.111 | 7.93  |
| 18)   | Hexachloroethane      | 0.579          | 0.604 | 0.641 | 0.643 | 0.650 | 0.666 | 0.659 | 0.635 | 4.96  |
| 19) P | n-Nitroso-di-n...     | 1.072          | 1.238 | 1.309 | 1.317 | 1.326 | 1.379 | 1.340 | 1.283 | 7.99  |
| 20)   | 3+4-Methylphenols     | 1.157          | 1.504 | 1.593 | 1.608 | 1.634 | 1.670 | 1.640 | 1.544 | 11.55 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.464          | 0.511 | 0.529 | 0.516 | 0.536 | 0.544 | 0.548 | 0.521 | 5.48  |
| 23) S | Nitrobenzene-d5       | 0.354          | 0.394 | 0.421 | 0.408 | 0.428 | 0.431 | 0.433 | 0.410 | 6.86  |
| 24)   | Nitrobenzene          | 0.372          | 0.394 | 0.407 | 0.393 | 0.408 | 0.411 | 0.408 | 0.399 | 3.43  |
| 25)   | Isophorone            | 0.531          | 0.599 | 0.637 | 0.631 | 0.658 | 0.665 | 0.659 | 0.626 | 7.58  |
| 26) C | 2-Nitrophenol         | 0.146          | 0.166 | 0.169 | 0.179 | 0.185 | 0.185 | 0.172 | 0.172 | 8.63  |
| 27)   | 2,4-Dimethylph...     | 0.232          | 0.268 | 0.260 | 0.257 | 0.268 | 0.271 | 0.271 | 0.261 | 5.39  |
| 28)   | bis(2-Chloroet...     | 0.367          | 0.404 | 0.419 | 0.404 | 0.415 | 0.422 | 0.422 | 0.408 | 4.76  |
| 29) C | 2,4-Dichloroph...     | 0.221          | 0.279 | 0.300 | 0.292 | 0.308 | 0.311 | 0.312 | 0.289 | 11.17 |
| 30)   | 1,2,4-Trichlor...     | 0.321          | 0.324 | 0.336 | 0.326 | 0.344 | 0.349 | 0.350 | 0.336 | 3.61  |
| 31)   | Naphthalene           | 1.006          | 1.032 | 1.038 | 1.015 | 1.052 | 1.058 | 1.058 | 1.037 | 2.00  |
| 32)   | Benzoic acid          | 0.192          | 0.225 | 0.231 | 0.242 | 0.249 | 0.248 | 0.231 | 0.231 | 9.21  |
| 33)   | 4-Chloroaniline       | 0.362          | 0.402 | 0.435 | 0.424 | 0.441 | 0.449 | 0.446 | 0.423 | 7.41  |
| 34) C | Hexachlorobuta...     | 0.218          | 0.218 | 0.223 | 0.216 | 0.228 | 0.231 | 0.235 | 0.224 | 3.33  |
| 35)   | Caprolactam           | 0.083          | 0.095 | 0.096 | 0.101 | 0.100 | 0.100 | 0.096 | 0.096 | 7.08  |
| 36) C | 4-Chloro-3-met...     | 0.270          | 0.320 | 0.341 | 0.337 | 0.350 | 0.354 | 0.349 | 0.332 | 8.88  |
| 37)   | 2-Methylnaphth...     | 0.678          | 0.724 | 0.744 | 0.722 | 0.754 | 0.771 | 0.770 | 0.738 | 4.44  |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.571          | 0.611 | 0.634 | 0.632 | 0.665 | 0.681 | 0.698 | 0.642 | 6.77  |
| 40) P | Hexachlorocycl...  |                | 0.123 | 0.203 | 0.236 | 0.264 | 0.282 | 0.312 | 0.236 | 28.45 |
| 41) S | 2,4,6-Tribromo...  | 0.188          | 0.238 | 0.260 | 0.267 | 0.284 | 0.291 | 0.301 | 0.261 | 14.68 |
| 42) C | 2,4,6-Trichlor...  | 0.297          | 0.375 | 0.417 | 0.415 | 0.434 | 0.447 | 0.455 | 0.406 | 13.50 |
| 43)   | 2,4,5-Trichlor...  | 0.356          | 0.405 | 0.441 | 0.443 | 0.464 | 0.476 | 0.484 | 0.438 | 10.22 |
| 44) S | 2-Fluorobiphenyl   | 1.479          | 1.517 | 1.582 | 1.571 | 1.647 | 1.706 | 1.775 | 1.611 | 6.50  |
| 45)   | 1,1'-Biphenyl      | 1.617          | 1.672 | 1.727 | 1.690 | 1.767 | 1.795 | 1.837 | 1.729 | 4.40  |
| 46)   | 2-Chloronaphth...  | 1.209          | 1.246 | 1.298 | 1.270 | 1.317 | 1.345 | 1.364 | 1.293 | 4.26  |
| 47)   | 2-Nitroaniline     |                | 0.387 | 0.444 | 0.452 | 0.471 | 0.476 | 0.475 | 0.451 | 7.51  |
| 48)   | Acenaphthylene     | 1.793          | 2.050 | 2.136 | 2.090 | 2.184 | 2.214 | 2.254 | 2.103 | 7.31  |
| 49)   | Dimethylphthalate  | 1.687          | 1.745 | 1.770 | 1.724 | 1.781 | 1.816 | 1.824 | 1.764 | 2.80  |
| 50)   | 2,6-Dinitrotol...  | 0.270          | 0.332 | 0.357 | 0.347 | 0.363 | 0.371 | 0.367 | 0.344 | 10.26 |
| 51) C | Acenaphthene       | 1.218          | 1.278 | 1.297 | 1.281 | 1.337 | 1.360 | 1.389 | 1.309 | 4.41  |
| 52)   | 3-Nitroaniline     |                | 0.330 | 0.375 | 0.374 | 0.391 | 0.392 | 0.397 | 0.376 | 6.54  |
| 53) P | 2,4-Dinitrophenol  |                | 0.095 | 0.130 | 0.145 | 0.160 | 0.168 | 0.175 | 0.145 | 20.30 |
| 54)   | Dibenzofuran       | 1.901          | 1.983 | 2.023 | 1.973 | 2.039 | 2.084 | 2.114 | 2.017 | 3.58  |
| 55) P | 4-Nitrophenol      |                | 0.218 | 0.273 | 0.280 | 0.296 | 0.300 | 0.301 | 0.278 | 11.36 |
| 56)   | 2,4-Dinitrotol...  |                | 0.442 | 0.484 | 0.485 | 0.518 | 0.520 | 0.530 | 0.497 | 6.64  |
| 57)   | Fluorene           | 1.506          | 1.584 | 1.667 | 1.622 | 1.712 | 1.752 | 1.797 | 1.663 | 6.04  |
| 58)   | 2,3,4,6-Tetrac...  | 0.291          | 0.357 | 0.374 | 0.370 | 0.394 | 0.400 | 0.404 | 0.370 | 10.45 |
| 59)   | Diethylphthalate   | 1.784          | 1.848 | 1.903 | 1.855 | 1.933 | 1.947 | 1.961 | 1.890 | 3.38  |
| 60)   | 4-Chlorophenyl...  | 0.794          | 0.822 | 0.847 | 0.832 | 0.872 | 0.904 | 0.920 | 0.856 | 5.30  |
| 61)   | 4-Nitroaniline     |                | 0.348 | 0.392 | 0.400 | 0.424 | 0.390 | 0.389 | 0.391 | 6.28  |
| 62)   | Azobenzene         | 1.448          | 1.749 | 1.832 | 1.787 | 1.857 | 1.860 | 1.868 | 1.772 | 8.42  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.095 | 0.116 | 0.118 | 0.128 | 0.133 | 0.138 | 0.122 | 12.63 |
| 65) c | n-Nitrosodiphe...  | 0.603          | 0.665 | 0.688 | 0.670 | 0.711 | 0.726 | 0.734 | 0.685 | 6.54  |
| 66)   | 4-Bromophenyl-...  | 0.192          | 0.211 | 0.222 | 0.219 | 0.232 | 0.241 | 0.247 | 0.223 | 8.29  |
| 67)   | Hexachlorobenzene  | 0.220          | 0.238 | 0.250 | 0.243 | 0.257 | 0.266 | 0.272 | 0.250 | 7.10  |
| 68)   | Atrazine           | 0.205          | 0.223 | 0.236 | 0.226 | 0.232 | 0.234 | 0.223 | 0.225 | 4.58  |
| 69) C | Pentachlorophenol  |                | 0.127 | 0.148 | 0.152 | 0.162 | 0.167 | 0.171 | 0.154 | 10.36 |
| 70)   | Phenanthrene       | 1.072          | 1.114 | 1.129 | 1.111 | 1.176 | 1.195 | 1.212 | 1.144 | 4.47  |
| 71)   | Anthracene         | 0.987          | 1.058 | 1.122 | 1.110 | 1.176 | 1.197 | 1.215 | 1.124 | 7.22  |
| 72)   | Carbazole          | 0.933          | 1.009 | 1.048 | 1.028 | 1.091 | 1.106 | 1.115 | 1.047 | 6.16  |
| 73)   | Di-n-butylphth...  | 1.154          | 1.332 | 1.408 | 1.409 | 1.493 | 1.530 | 1.553 | 1.411 | 9.73  |
| 74) C | Fluoranthene       | 1.205          | 1.260 | 1.287 | 1.279 | 1.383 | 1.395 | 1.399 | 1.315 | 5.82  |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.451          | 0.557 | 0.489 | 0.467 | 1.201 | 0.438 | 0.499 | 0.586 | 46.75 |
| 77)   | Pvrene             | 1.134          | 1.229 | 1.269 | 1.210 | 1.244 | 1.298 | 1.337 | 1.246 | 5.26  |
| 78) S | Terphenyl-d14      | 1.031          | 0.994 | 1.061 | 1.028 | 1.080 | 1.146 | 1.208 | 1.078 | 6.92  |
| 79)   | Butylbenzylphth... | 0.486          | 0.577 | 0.613 | 0.597 | 0.626 | 0.650 | 0.666 | 0.602 | 9.90  |
| 80)   | Benzo(a)anthra...  | 1.246          | 1.238 | 1.253 | 1.229 | 1.291 | 1.311 | 1.308 | 1.268 | 2.72  |
| 81)   | 3,3'-Dichlorob...  | 0.407          | 0.440 | 0.465 | 0.452 | 0.491 | 0.470 | 0.465 | 0.456 | 5.88  |
| 82)   | Chrysene           | 1.214          | 1.167 | 1.177 | 1.123 | 1.183 | 1.205 | 1.200 | 1.181 | 2.59  |

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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 83)   | Bis(2-ethylhex... | 0.743          | 0.840 | 0.910 | 0.881 | 0.929 | 0.952 | 0.973 | 0.890 | 8.80 |
| 84) c | Di-n-octyl pht... | 1.214          | 1.340 | 1.466 | 1.458 | 1.555 | 1.563 | 1.559 | 1.451 | 9.07 |
| 85)   | Indeno(1,2,3-c... | 1.095          | 1.064 | 1.068 | 1.118 | 1.224 | 1.123 | 0.990 | 1.097 | 6.53 |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Benzo(b)fluora... | 1.303          | 1.294 | 1.337 | 1.274 | 1.321 | 1.393 | 1.425 | 1.335 | 4.11 |
| 88)   | Benzo(k)fluora... | 1.231          | 1.219 | 1.274 | 1.264 | 1.352 | 1.327 | 1.413 | 1.297 | 5.39 |
| 89) C | Benzo(a)pyrene    | 1.118          | 1.114 | 1.164 | 1.147 | 1.211 | 1.225 | 1.249 | 1.175 | 4.56 |
| 90)   | Dibenzo(a,h)an... | 0.993          | 0.978 | 1.035 | 1.061 | 1.142 | 1.110 | 1.083 | 1.058 | 5.67 |
| 91)   | Benzo(g,h,i)pe... | 0.914          | 0.888 | 0.912 | 0.922 | 0.992 | 0.946 | 0.930 | 0.929 | 3.54 |

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(#) = Out of Range