

Method Path : Z:\HPCHEM1\BNA\_G\METHODS\  
 Method File : 8270-BG012015.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Tue Jan 20 17:47:40 2015  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BG015894.D 10 =BG015888.D 25 =BG015889.D 40 =BG015890.D 50 =BG015891.D 60 =BG015892.D 80 =BG015893.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |      |
| 2)    | 1,4-Dioxane           | 0.743          | 0.621 | 0.701 | 0.698 | 0.699 | 0.688 | 0.692 | 5.72  |      |
| 3)    | Pyridine              | 2.521          | 2.161 | 2.238 | 2.297 | 2.395 | 2.380 | 2.332 | 5.47  |      |
| 4)    | n-Nitrosodimet...     | 0.876          | 0.886 | 0.898 | 0.893 | 0.932 | 0.919 | 0.901 | 2.34  |      |
| 5) S  | 2-Fluorophenol        | 1.432          | 1.367 | 1.262 | 1.293 | 1.334 | 1.362 | 1.350 | 1.343 | 4.07 |
| 6)    | Aniline               | 3.035          | 3.623 | 2.867 | 3.009 | 3.111 | 3.085 | 3.116 | 7.63  |      |
| 7) S  | Phenol-d6             | 2.288          | 2.252 | 2.028 | 2.047 | 2.151 | 2.235 | 2.149 | 2.164 | 4.66 |
| 8)    | 2-Chlorophenol        | 1.406          | 1.400 | 1.208 | 1.173 | 1.236 | 1.288 | 1.310 | 1.289 | 7.03 |
| 9)    | Benzaldehyde          | 1.787          | 2.016 | 1.895 | 2.013 | 2.057 | 2.049 | 1.991 | 1.973 | 4.95 |
| 10) C | Phenol                | 2.234          | 2.862 | 2.273 | 2.390 | 2.433 | 2.533 | 2.544 | 2.467 | 8.53 |
| 11)   | bis(2-Chloroet...     | 2.078          | 2.087 | 1.782 | 1.789 | 1.806 | 1.905 | 1.896 | 1.906 | 6.82 |
| 12)   | 1,3-Dichlorobe...     | 1.505          | 1.717 | 1.386 | 1.499 | 1.497 | 1.546 | 1.526 | 1.525 | 6.48 |
| 13) C | 1,4-Dichlorobe...     | 1.531          | 1.784 | 1.489 | 1.483 | 1.535 | 1.615 | 1.584 | 1.575 | 6.61 |
| 14)   | 1,2-Dichlorobe...     | 1.753          | 1.661 | 1.367 | 1.462 | 1.464 | 1.509 | 1.585 | 1.543 | 8.56 |
| 15)   | Benzyl Alcohol        | 1.962          | 2.334 | 2.303 | 2.407 | 2.430 | 2.551 | 2.588 | 2.368 | 8.75 |
| 16)   | 2,2'-oxybis(1-...     | 1.630          | 1.507 | 1.448 | 1.509 | 1.579 | 1.571 | 1.541 | 4.21  |      |
| 17)   | 2-Methylphenol        | 1.511          | 1.593 | 1.465 | 1.452 | 1.542 | 1.580 | 1.555 | 1.528 | 3.57 |
| 18)   | Hexachloroethane      | 0.885          | 0.852 | 0.753 | 0.761 | 0.804 | 0.815 | 0.796 | 0.810 | 5.81 |
| 19) P | n-Nitroso-di-n...     | 2.118          | 2.330 | 2.065 | 2.153 | 2.125 | 2.088 | 2.235 | 2.159 | 4.31 |
| 20)   | 3+4-Methylphenols     | 1.781          | 2.023 | 1.864 | 2.016 | 2.040 | 2.135 | 2.164 | 2.003 | 6.88 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |      |
| 22)   | Acetophenone          | 0.657          | 0.718 | 0.638 | 0.667 | 0.660 | 0.680 | 0.672 | 0.670 | 3.71 |
| 23) S | Nitrobenzene-d5       | 0.745          | 0.748 | 0.696 | 0.678 | 0.666 | 0.674 | 0.650 | 0.694 | 5.55 |
| 24)   | Nitrobenzene          | 0.660          | 0.839 | 0.720 | 0.708 | 0.731 | 0.722 | 0.730 | 0.730 | 7.38 |
| 25)   | Isophorone            | 1.119          | 1.300 | 1.193 | 1.224 | 1.269 | 1.241 | 1.241 | 1.227 | 4.72 |
| 26) C | 2-Nitrophenol         | 0.176          | 0.173 | 0.173 | 0.184 | 0.187 | 0.180 | 0.192 | 0.181 | 4.13 |
| 27)   | 2,4-Dimethylph...     | 0.296          | 0.392 | 0.332 | 0.350 | 0.349 | 0.348 | 0.353 | 0.346 | 8.28 |
| 28)   | bis(2-Chloroet...     | 0.590          | 0.613 | 0.584 | 0.601 | 0.594 | 0.593 | 0.582 | 0.594 | 1.80 |
| 29) C | 2,4-Dichloroph...     | 0.323          | 0.389 | 0.354 | 0.359 | 0.373 | 0.362 | 0.369 | 0.361 | 5.63 |
| 30)   | 1,2,4-Trichlor...     | 0.443          | 0.486 | 0.424 | 0.421 | 0.423 | 0.442 | 0.427 | 0.438 | 5.29 |
| 31)   | Naphthalene           | 1.099          | 1.106 | 1.013 | 0.986 | 0.986 | 0.993 | 0.983 | 1.024 | 5.34 |
| 32)   | Benzoic acid          | 0.014          | 0.058 | 0.085 | 0.120 | 0.144 | 0.169 | 0.098 | 58.31 |      |
| 33)   | 4-Chloroaniline       | 0.519          | 0.500 | 0.449 | 0.457 | 0.483 | 0.460 | 0.472 | 0.477 | 5.30 |
| 34) C | Hexachlorobuta...     | 0.457          | 0.493 | 0.413 | 0.399 | 0.413 | 0.416 | 0.407 | 0.428 | 7.91 |
| 35)   | Caprolactam           | 0.170          | 0.165 | 0.185 | 0.175 | 0.182 | 0.188 | 0.177 | 5.02  |      |
| 36) C | 4-Chloro-3-met...     | 0.467          | 0.572 | 0.519 | 0.524 | 0.562 | 0.531 | 0.543 | 0.531 | 6.50 |
| 37)   | 2-Methylnaphth...     | 0.811          | 0.883 | 0.771 | 0.798 | 0.822 | 0.801 | 0.806 | 0.813 | 4.25 |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.797          | 0.780 | 0.764 | 0.738 | 0.746 | 0.746 | 0.768 | 0.763 | 2.78  |
| 40) P | Hexachlorocycl...  | 0.446          | 0.569 | 0.576 | 0.595 | 0.606 | 0.592 | 0.639 | 0.575 | 10.64 |
| 41) S | 2,4,6-Tribromo...  | 0.317          | 0.379 | 0.378 | 0.360 | 0.376 | 0.375 | 0.378 | 0.366 | 6.21  |
| 42) C | 2,4,6-Trichlor...  | 0.306          | 0.471 | 0.466 | 0.460 | 0.483 | 0.459 | 0.482 | 0.447 | 14.06 |
| 43)   | 2,4,5-Trichlor...  | 0.447          | 0.509 | 0.510 | 0.508 | 0.525 | 0.520 | 0.516 | 0.505 | 5.18  |
| 44) S | 2-Fluorobiphenyl   | 1.357          | 1.401 | 1.299 | 1.278 | 1.252 | 1.180 | 1.157 | 1.275 | 6.93  |
| 45)   | 1,1'-Biphenyl      | 1.269          | 1.277 | 1.277 | 1.259 | 1.270 | 1.235 | 1.250 | 1.262 | 1.21  |
| 46)   | 2-Chloronaphth...  | 1.113          | 1.118 | 1.095 | 1.022 | 1.051 | 1.007 | 1.055 | 1.066 | 4.13  |
| 47)   | 2-Nitroaniline     | 0.509          | 0.542 | 0.569 | 0.532 | 0.574 | 0.531 | 0.550 | 0.544 | 4.15  |
| 48)   | Acenaphthylene     | 1.632          | 1.686 | 1.617 | 1.607 | 1.636 | 1.579 | 1.574 | 1.619 | 2.35  |
| 49)   | Dimethylphthalate  | 1.491          | 1.572 | 1.443 | 1.396 | 1.400 | 1.384 | 1.389 | 1.439 | 4.85  |
| 50)   | 2,6-Dinitrotol...  | 0.321          | 0.355 | 0.329 | 0.308 | 0.314 | 0.308 | 0.339 | 0.325 | 5.37  |
| 51) C | Acenaphthene       | 1.036          | 1.080 | 0.981 | 1.006 | 1.017 | 0.995 | 1.003 | 1.017 | 3.21  |
| 52)   | 3-Nitroaniline     | 0.320          | 0.316 | 0.305 | 0.300 | 0.302 | 0.292 | 0.304 | 0.306 | 3.09  |
| 53) P | 2,4-Dinitrophenol  |                | 0.107 | 0.151 | 0.179 | 0.211 | 0.222 | 0.248 | 0.186 | 27.66 |
| 54)   | Dibenzofuran       | 1.766          | 1.835 | 1.725 | 1.613 | 1.643 | 1.584 | 1.581 | 1.678 | 5.87  |
| 55) P | 4-Nitrophenol      |                | 0.179 | 0.200 | 0.210 | 0.219 | 0.221 | 0.234 | 0.210 | 9.10  |
| 56)   | 2,4-Dinitrotol...  | 0.424          | 0.537 | 0.475 | 0.470 | 0.473 | 0.470 | 0.479 | 0.475 | 6.94  |
| 57)   | Fluorene           | 1.572          | 1.647 | 1.520 | 1.438 | 1.497 | 1.460 | 1.462 | 1.514 | 4.88  |
| 58)   | 2,3,4,6-Tetrac...  | 0.489          | 0.591 | 0.560 | 0.551 | 0.579 | 0.564 | 0.581 | 0.559 | 6.04  |
| 59)   | Diethylphthalate   | 1.343          | 1.660 | 1.519 | 1.448 | 1.482 | 1.422 | 1.412 | 1.469 | 6.85  |
| 60)   | 4-Chlorophenyl...  | 1.143          | 1.022 | 0.958 | 0.969 | 0.993 | 0.969 | 0.993 | 1.007 | 6.34  |
| 61)   | 4-Nitroaniline     | 0.290          | 0.347 | 0.311 | 0.322 | 0.337 | 0.328 | 0.334 | 0.324 | 5.87  |
| 62)   | Azobenzene         | 2.506          | 2.836 | 2.474 | 2.376 | 2.292 | 2.144 | 2.027 | 2.379 | 11.13 |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.109 | 0.135 | 0.144 | 0.152 | 0.160 | 0.166 | 0.144 | 14.18 |
| 65) c | n-Nitrosodiphe...  | 0.582          | 0.602 | 0.566 | 0.544 | 0.573 | 0.576 | 0.551 | 0.571 | 3.39  |
| 66)   | 4-Bromophenyl-...  | 0.284          | 0.325 | 0.282 | 0.273 | 0.287 | 0.301 | 0.293 | 0.292 | 5.80  |
| 67)   | Hexachlorobenzene  | 0.310          | 0.347 | 0.309 | 0.294 | 0.311 | 0.322 | 0.318 | 0.316 | 5.17  |
| 68)   | Atrazine           | 0.266          | 0.282 | 0.266 | 0.259 | 0.286 | 0.289 | 0.275 | 0.275 | 4.17  |
| 69) C | Pentachlorophenol  |                | 0.069 | 0.124 | 0.128 | 0.149 | 0.166 | 0.174 | 0.135 | 28.23 |
| 70)   | Phenanthrene       | 1.155          | 1.120 | 1.010 | 0.934 | 0.971 | 0.962 | 0.872 | 1.003 | 10.11 |
| 71)   | Anthracene         | 1.017          | 1.095 | 1.018 | 0.959 | 0.968 | 0.955 | 0.881 | 0.985 | 6.79  |
| 72)   | Carbazole          | 0.869          | 0.961 | 0.890 | 0.822 | 0.875 | 0.866 | 0.793 | 0.868 | 6.11  |
| 73)   | Di-n-butylphth...  | 0.989          | 1.140 | 1.063 | 0.981 | 0.995 | 0.967 | 0.858 | 0.999 | 8.71  |
| 74) C | Fluoranthene       | 1.530          | 1.581 | 1.422 | 1.287 | 1.270 | 1.230 | 1.060 | 1.340 | 13.60 |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.235          | 0.362 | 0.452 | 0.482 | 0.517 | 0.510 | 0.490 | 0.435 | 23.58 |
| 77)   | Pyrene             | 1.034          | 1.070 | 1.032 | 0.933 | 0.928 | 0.881 | 0.774 | 0.950 | 10.92 |
| 78) S | Terphenyl-d14      | 0.974          | 0.987 | 0.848 | 0.710 | 0.660 | 0.588 | 0.494 | 0.752 | 25.34 |
| 79)   | Butylbenzylphth... | 0.348          | 0.352 | 0.353 | 0.348 | 0.355 | 0.351 | 0.333 | 0.348 | 2.10  |
| 80)   | Benzo(a)anthra...  | 1.222          | 1.250 | 1.163 | 1.021 | 0.993 | 0.915 | 0.799 | 1.052 | 15.89 |
| 81)   | 3,3'-Dichlorob...  | 0.411          | 0.446 | 0.447 | 0.459 | 0.460 | 0.466 | 0.440 | 0.447 | 4.07  |
| 82)   | Chrysene           | 1.145          | 1.168 | 1.096 | 0.976 | 0.933 | 0.876 | 0.759 | 0.993 | 15.20 |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.432          | 0.476 | 0.484 | 0.475 | 0.484 | 0.480 | 0.448 | 0.469 | 4.30  |
| 84) c | Di-n-octyl pht... | 0.706          | 0.773 | 0.780 | 0.727 | 0.732 | 0.712 | 0.643 | 0.725 | 6.33  |
| 85)   | Indeno(1,2,3-c... | 0.990          | 1.241 | 1.220 | 1.182 | 1.230 | 1.206 | 1.139 | 1.173 | 7.46  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.291          | 1.271 | 1.193 | 1.083 | 1.109 | 1.059 | 0.985 | 1.142 | 9.96  |
| 88)   | Benzo(k)fluora... | 1.233          | 1.254 | 1.175 | 1.062 | 1.069 | 1.018 | 0.925 | 1.105 | 10.89 |
| 89) C | Benzo(a)pyrene    | 1.118          | 1.239 | 1.145 | 1.064 | 1.095 | 1.037 | 0.990 | 1.098 | 7.34  |
| 90)   | Dibenzo(a,h)an... | 0.892          | 1.071 | 1.109 | 1.023 | 1.089 | 1.067 | 1.047 | 1.043 | 6.88  |
| 91)   | Benzo(g,h,i)pe... | 0.876          | 1.107 | 1.035 | 0.979 | 1.069 | 1.026 | 1.029 | 1.017 | 7.24  |

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(#) = Out of Range