

Method Path : Z:\HPCHEM1\BNA\_G\METHODS\  
 Method File : 8270-BG070816.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Thu Jul 07 16:51:07 2016  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BG022891.D 10 =BG022892.D 25 =BG022893.D 40 =BG022894.D 50 =BG022895.D 60 =BG022896.D 80 =BG022897.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.487          | 0.484 | 0.451 | 0.457 | 0.509 | 0.473 | 0.467 | 0.475 | 4.17  |
| 3)    | Pyridine              | 1.615          | 1.478 | 1.625 | 1.622 | 1.734 | 1.643 | 1.670 | 1.627 | 4.75  |
| 4)    | n-Nitrosodimet...     | 0.708          | 0.664 | 0.683 | 0.706 | 0.711 | 0.708 | 0.704 | 0.698 | 2.51  |
| 5) S  | 2-Fluorophenol        | 1.189          | 1.279 | 1.234 | 1.198 | 1.266 | 1.220 | 1.175 | 1.223 | 3.21  |
| 6)    | Aniline               | 2.599          | 2.527 | 2.633 | 2.683 | 2.823 | 2.674 | 2.641 | 2.654 | 3.43  |
| 7) S  | Phenol-d6             | 1.956          | 1.870 | 1.924 | 1.958 | 2.012 | 1.850 | 1.837 | 1.915 | 3.39  |
| 8)    | 2-Chlorophenol        | 1.256          | 1.277 | 1.316 | 1.299 | 1.338 | 1.311 | 1.312 | 1.301 | 2.11  |
| 9)    | Benzaldehyde          | 1.521          | 1.330 | 1.339 | 1.255 | 1.279 | 1.166 | 1.069 | 1.280 | 11.17 |
| 10) C | Phenol                | 2.019          | 1.861 | 1.971 | 1.994 | 2.068 | 1.939 | 1.944 | 1.971 | 3.35  |
| 11)   | bis(2-Chloroet...     | 1.673          | 1.486 | 1.525 | 1.557 | 1.635 | 1.532 | 1.525 | 1.562 | 4.30  |
| 12)   | 1,3-Dichlorobe...     | 1.611          | 1.690 | 1.614 | 1.544 | 1.609 | 1.540 | 1.543 | 1.593 | 3.45  |
| 13) C | 1,4-Dichlorobe...     | 1.512          | 1.646 | 1.620 | 1.575 | 1.648 | 1.590 | 1.572 | 1.595 | 3.01  |
| 14)   | 1,2-Dichlorobe...     | 1.700          | 1.564 | 1.595 | 1.522 | 1.627 | 1.571 | 1.518 | 1.585 | 4.00  |
| 15)   | Benzyl Alcohol        | 1.687          | 1.606 | 1.724 | 1.806 | 1.893 | 1.751 | 1.812 | 1.754 | 5.33  |
| 16)   | 2,2'-oxybis(1-...     | 2.140          | 1.803 | 1.877 | 1.898 | 1.981 | 1.836 | 1.820 | 1.908 | 6.21  |
| 17)   | 2-Methylphenol        | 1.294          | 1.243 | 1.235 | 1.290 | 1.352 | 1.267 | 1.298 | 1.283 | 3.07  |
| 18)   | Hexachloroethane      | 0.745          | 0.640 | 0.693 | 0.625 | 0.680 | 0.663 | 0.666 | 0.673 | 5.83  |
| 19) P | n-Nitroso-di-n...     | 1.731          | 1.644 | 1.724 | 1.775 | 1.832 | 1.683 | 1.697 | 1.727 | 3.60  |
| 20)   | 3+4-Methylphenols     | 1.578          | 1.675 | 1.807 | 1.902 | 1.915 | 1.805 | 1.842 | 1.789 | 6.82  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.613          | 0.621 | 0.624 | 0.597 | 0.586 | 0.590 | 0.572 | 0.600 | 3.23  |
| 23) S | Nitrobenzene-d5       | 0.483          | 0.488 | 0.484 | 0.462 | 0.470 | 0.450 | 0.434 | 0.467 | 4.29  |
| 24)   | Nitrobenzene          | 0.521          | 0.514 | 0.509 | 0.483 | 0.490 | 0.487 | 0.471 | 0.496 | 3.66  |
| 25)   | Isophorone            | 0.976          | 0.934 | 0.979 | 0.963 | 0.937 | 0.914 | 0.873 | 0.939 | 4.01  |
| 26) C | 2-Nitrophenol         | 0.179          | 0.183 | 0.199 | 0.206 | 0.196 | 0.202 | 0.197 | 0.195 | 5.01  |
| 27)   | 2,4-Dimethylph...     | 0.386          | 0.321 | 0.333 | 0.333 | 0.333 | 0.327 | 0.324 | 0.337 | 6.61  |
| 28)   | bis(2-Chloroet...     | 0.545          | 0.518 | 0.539 | 0.528 | 0.523 | 0.515 | 0.497 | 0.524 | 3.04  |
| 29) C | 2,4-Dichloroph...     | 0.344          | 0.352 | 0.372 | 0.366 | 0.368 | 0.361 | 0.352 | 0.359 | 2.85  |
| 30)   | 1,2,4-Trichlor...     | 0.428          | 0.409 | 0.415 | 0.407 | 0.408 | 0.417 | 0.398 | 0.411 | 2.29  |
| 31)   | Naphthalene           | 1.133          | 1.051 | 1.053 | 1.004 | 0.993 | 0.975 | 0.917 | 1.018 | 6.75  |
| 32)   | Benzoic acid          | 0.338          | 0.257 | 0.269 | 0.324 | 0.315 | 0.313 | 0.327 | 0.306 | 10.07 |
| 33)   | 4-Chloroaniline       | 0.520          | 0.504 | 0.509 | 0.497 | 0.492 | 0.487 | 0.476 | 0.498 | 2.96  |
| 34) C | Hexachlorobuta...     | 0.355          | 0.352 | 0.339 | 0.324 | 0.320 | 0.324 | 0.319 | 0.334 | 4.55  |
| 35)   | Caprolactam           | 0.184          | 0.147 | 0.139 | 0.148 | 0.145 | 0.135 | 0.135 | 0.148 | 11.50 |
| 36) C | 4-Chloro-3-met...     | 0.531          | 0.491 | 0.493 | 0.500 | 0.491 | 0.471 | 0.460 | 0.491 | 4.60  |
| 37)   | 2-Methylnaphth...     | 0.827          | 0.832 | 0.830 | 0.820 | 0.807 | 0.774 | 0.742 | 0.805 | 4.26  |

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|     |   |                    |                |       |       |       |       |       |       |       |       |
|-----|---|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) | I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39) |   | 1,2,4,5-Tetrac...  | 0.888          | 0.875 | 0.885 | 0.847 | 0.845 | 0.864 | 0.827 | 0.862 | 2.65  |
| 40) | P | Hexachlorocycl...  | 0.490          | 0.455 | 0.490 | 0.490 | 0.514 | 0.521 | 0.513 | 0.496 | 4.55  |
| 41) | S | 2,4,6-Tribromo...  | 0.409          | 0.369 | 0.357 | 0.348 | 0.350 | 0.352 | 0.330 | 0.359 | 6.93  |
| 42) | C | 2,4,6-Trichlor...  | 0.507          | 0.481 | 0.506 | 0.497 | 0.491 | 0.506 | 0.479 | 0.495 | 2.40  |
| 43) |   | 2,4,5-Trichlor...  | 0.558          | 0.497 | 0.506 | 0.496 | 0.502 | 0.511 | 0.490 | 0.509 | 4.52  |
| 44) | S | 2-Fluorobiphenyl   | 1.569          | 1.410 | 1.356 | 1.228 | 1.179 | 1.146 | 1.001 | 1.270 | 14.88 |
| 45) |   | 1,1'-Biphenyl      | 1.648          | 1.558 | 1.567 | 1.483 | 1.467 | 1.443 | 1.338 | 1.501 | 6.71  |
| 46) |   | 2-Chloronaphth...  | 1.304          | 1.272 | 1.250 | 1.205 | 1.184 | 1.186 | 1.119 | 1.217 | 5.15  |
| 47) |   | 2-Nitroaniline     | 0.559          | 0.527 | 0.533 | 0.511 | 0.506 | 0.508 | 0.491 | 0.519 | 4.31  |
| 48) |   | Acenaphthylene     | 2.105          | 1.983 | 1.888 | 1.798 | 1.742 | 1.718 | 1.549 | 1.826 | 10.05 |
| 49) |   | Dimethylphthalate  | 1.917          | 1.803 | 1.711 | 1.582 | 1.544 | 1.506 | 1.373 | 1.634 | 11.44 |
| 50) |   | 2,6-Dinitrotol...  | 0.362          | 0.389 | 0.375 | 0.361 | 0.368 | 0.362 | 0.352 | 0.367 | 3.31  |
| 51) | C | Acenaphthene       | 1.325          | 1.232 | 1.229 | 1.165 | 1.165 | 1.152 | 1.084 | 1.193 | 6.41  |
| 52) |   | 3-Nitroaniline     | 0.381          | 0.373 | 0.371 | 0.364 | 0.365 | 0.359 | 0.351 | 0.366 | 2.59  |
| 53) | P | 2,4-Dinitrophenol  | 0.241          | 0.232 | 0.242 | 0.259 | 0.260 | 0.269 | 0.261 | 0.252 | 5.37  |
| 54) |   | Dibenzofuran       | 2.173          | 1.940 | 1.862 | 1.726 | 1.686 | 1.638 | 1.476 | 1.786 | 12.74 |
| 55) | P | 4-Nitrophenol      | 0.344          | 0.301 | 0.308 | 0.304 | 0.303 | 0.300 | 0.288 | 0.307 | 5.74  |
| 56) |   | 2,4-Dinitrotol...  | 0.606          | 0.552 | 0.535 | 0.522 | 0.519 | 0.526 | 0.488 | 0.535 | 6.82  |
| 57) |   | Fluorene           | 1.816          | 1.668 | 1.587 | 1.479 | 1.462 | 1.430 | 1.318 | 1.537 | 10.82 |
| 58) |   | 2,3,4,6-Tetrac...  | 0.527          | 0.535 | 0.516 | 0.502 | 0.506 | 0.500 | 0.477 | 0.509 | 3.77  |
| 59) |   | Diethylphthalate   | 2.053          | 1.856 | 1.708 | 1.610 | 1.552 | 1.501 | 1.356 | 1.662 | 14.05 |
| 60) |   | 4-Chlorophenyl...  | 1.043          | 0.997 | 0.945 | 0.927 | 0.917 | 0.882 | 0.843 | 0.936 | 7.19  |
| 61) |   | 4-Nitroaniline     | 0.471          | 0.410 | 0.389 | 0.386 | 0.380 | 0.377 | 0.361 | 0.396 | 9.12  |
| 62) |   | Azobenzene         | 1.872          | 1.735 | 1.667 | 1.547 | 1.514 | 1.460 | 1.336 | 1.590 | 11.35 |
| 63) | I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64) |   | 4,6-Dinitro-2-...  | 0.133          | 0.139 | 0.147 | 0.156 | 0.154 | 0.158 | 0.155 | 0.149 | 6.44  |
| 65) | c | n-Nitrosodiphe...  | 0.613          | 0.594 | 0.598 | 0.582 | 0.570 | 0.556 | 0.522 | 0.576 | 5.29  |
| 66) |   | 4-Bromophenyl-...  | 0.286          | 0.253 | 0.259 | 0.263 | 0.257 | 0.257 | 0.246 | 0.260 | 4.86  |
| 67) |   | Hexachlorobenzene  | 0.291          | 0.277 | 0.285 | 0.285 | 0.284 | 0.285 | 0.274 | 0.283 | 2.06  |
| 68) |   | Atrazine           | 0.275          | 0.274 | 0.264 | 0.253 | 0.250 | 0.243 | 0.230 | 0.256 | 6.47  |
| 69) | C | Pentachlorophenol  | 0.170          | 0.163 | 0.180 | 0.193 | 0.192 | 0.193 | 0.191 | 0.183 | 6.76  |
| 70) |   | Phenanthrene       | 1.159          | 1.103 | 1.019 | 0.968 | 0.925 | 0.888 | 0.798 | 0.980 | 12.73 |
| 71) |   | Anthracene         | 1.170          | 1.108 | 1.059 | 0.976 | 0.934 | 0.905 | 0.795 | 0.992 | 13.00 |
| 72) |   | Carbazole          | 1.030          | 0.936 | 0.891 | 0.844 | 0.810 | 0.790 | 0.703 | 0.858 | 12.42 |
| 73) |   | Di-n-butylphth...  |                | 1.135 | 1.068 | 0.976 | 0.906 | 0.883 | 0.753 | 0.954 | 14.38 |
| 74) | C | Fluoranthene       | 1.408          | 1.351 | 1.253 | 1.139 | 1.049 | 1.016 |       | 1.203 | 13.36 |
| 75) | I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76) |   | Benzidine          |                | 0.625 | 0.627 | 0.590 | 0.574 | 0.540 | 0.484 | 0.573 | 9.54  |
| 77) |   | Pyrene             | 1.308          | 1.260 | 1.183 | 1.059 | 1.010 | 0.923 |       | 1.124 | 13.42 |
| 78) | S | Terphenyl-d14      |                | 0.899 | 0.775 | 0.643 | 0.591 | 0.528 | 0.444 | 0.646 | 25.74 |
| 79) |   | Butylbenzylphth... | 0.512          | 0.469 | 0.460 | 0.441 | 0.431 | 0.414 | 0.389 | 0.445 | 9.01  |
| 80) |   | Benzo(a)anthra...  | 1.364          | 1.251 | 1.205 | 1.091 | 1.050 | 0.988 | 0.884 | 1.119 | 14.73 |
| 81) |   | 3,3'-Dichlorob...  | 0.511          | 0.523 | 0.518 | 0.497 | 0.483 | 0.466 | 0.439 | 0.491 | 6.24  |
| 82) |   | Chrysene           | 1.252          | 1.199 | 1.142 | 1.019 | 0.987 | 0.926 | 0.823 | 1.050 | 14.72 |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.745          | 0.664 | 0.653 | 0.602 | 0.578 | 0.563 | 0.522 | 0.618 | 12.08 |
| 84) c | Di-n-octyl pht... | 1.224          | 1.122 | 1.099 | 1.022 | 0.975 | 0.930 | 0.845 | 1.031 | 12.42 |
| 85)   | Indeno(1,2,3-c... | 1.570          | 1.366 | 1.341 | 1.295 | 1.308 | 1.259 | 1.230 | 1.338 | 8.37  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.312          | 1.235 | 1.187 | 1.128 | 1.125 | 1.066 | 1.025 | 1.154 | 8.56  |
| 88)   | Benzo(k)fluora... | 1.254          | 1.162 | 1.154 | 1.110 | 1.039 | 1.030 | 0.917 | 1.095 | 10.05 |
| 89) C | Benzo(a)pyrene    | 1.280          | 1.162 | 1.140 | 1.095 | 1.059 | 1.031 | 0.975 | 1.106 | 9.01  |
| 90)   | Dibenzo(a,h)an... | 1.262          | 1.097 | 1.120 | 1.083 | 1.070 | 1.048 | 1.006 | 1.098 | 7.38  |
| 91)   | Benzo(g,h,i)pe... | 1.206          | 1.119 | 1.112 | 1.093 | 1.076 | 1.060 | 1.029 | 1.099 | 5.11  |

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(#) = Out of Range