

Method Path : Z:\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF080315.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Tue Aug 04 14:50:50 2015  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF080808.D 10 =BF080809.D 25 =BF080810.D 40 =BF080811.D 50 =BF080812.D 60 =BF080815.D 80 =BF080814.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.628          | 0.671 | 0.639 | 0.577 | 0.615 | 0.626 | 0.564 | 0.617 | 5.92  |
| 3)    | Pyridine              | 1.419          | 1.954 | 1.584 | 1.553 | 1.557 | 1.706 | 1.607 | 1.626 | 10.33 |
| 4)    | n-Nitrosodimet...     | 0.867          | 0.871 | 0.942 | 0.852 | 0.944 | 0.937 | 0.906 | 0.903 | 4.35  |
| 5) S  | 2-Fluorophenol        | 1.262          | 1.347 | 1.254 | 1.262 | 1.140 | 1.034 | 1.133 | 1.205 | 8.81  |
| 6)    | Aniline               | 2.453          | 2.600 | 2.465 | 2.194 | 2.247 | 2.208 | 2.046 | 2.316 | 8.38  |
| 7) S  | Phenol-d6             | 1.734          | 1.830 | 1.693 | 1.526 | 1.601 | 1.465 | 1.488 | 1.620 | 8.47  |
| 8)    | 2-Chlorophenol        | 1.435          | 1.560 | 1.325 | 1.257 | 1.375 | 1.217 | 1.117 | 1.327 | 11.08 |
| 9)    | Benzaldehyde          | 1.159          | 1.220 | 1.119 | 0.947 | 0.919 | 0.830 | 0.797 | 0.999 | 16.71 |
| 10) C | Phenol                | 2.103          | 2.050 | 2.117 | 1.558 | 1.961 | 1.628 | 1.779 | 1.885 | 12.23 |
| 11)   | bis(2-Chloroet...     | 1.430          | 1.654 | 1.239 | 1.362 | 1.379 | 1.173 | 1.247 | 1.355 | 11.82 |
| 12)   | 1,3-Dichlorobe...     | 1.627          | 1.782 | 1.471 | 1.353 | 1.423 | 1.374 | 1.402 | 1.490 | 10.57 |
| 13) C | 1,4-Dichlorobe...     | 1.613          | 1.793 | 1.563 | 1.431 | 1.405 | 1.292 | 1.306 | 1.486 | 12.16 |
| 14)   | 1,2-Dichlorobe...     | 1.550          | 1.643 | 1.297 | 1.237 | 1.362 | 1.338 | 1.205 | 1.376 | 11.79 |
| 15)   | Benzyl Alcohol        | 0.939          | 1.185 | 1.206 | 1.088 | 1.099 | 1.149 | 1.060 | 1.104 | 8.13  |
| 16)   | 2,2'-oxybis(1-...     | 2.944          | 3.121 | 2.573 | 2.475 | 2.631 | 2.533 | 2.472 | 2.678 | 9.46  |
| 17)   | 2-Methylphenol        | 1.338          | 1.353 | 1.116 | 1.147 | 1.111 | 1.042 | 1.086 | 1.171 | 10.59 |
| 18)   | Hexachloroethane      | 0.587          | 0.603 | 0.530 | 0.525 | 0.545 | 0.521 | 0.524 | 0.548 | 6.12  |
| 19) P | n-Nitroso-di-n...     | 1.096          | 1.237 | 1.081 | 0.909 | 1.073 | 0.958 | 0.972 | 1.046 | 10.51 |
| 20)   | 3+4-Methylphenols     | 1.538          | 1.660 | 1.377 | 1.193 | 1.366 | 1.168 | 1.220 | 1.360 | 13.61 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.539          | 0.569 | 0.473 | 0.479 | 0.456 | 0.424 | 0.474 | 0.488 | 10.16 |
| 23) S | Nitrobenzene-d5       | 0.470          | 0.420 | 0.428 | 0.359 | 0.373 | 0.415 | 0.385 | 0.407 | 9.33  |
| 24)   | Nitrobenzene          | 0.416          | 0.473 | 0.400 | 0.410 | 0.432 | 0.371 | 0.394 | 0.414 | 7.80  |
| 25)   | Isophorone            | 0.783          | 0.828 | 0.697 | 0.700 | 0.685 | 0.693 | 0.708 | 0.728 | 7.56  |
| 26) C | 2-Nitrophenol         | 0.167          | 0.200 | 0.189 | 0.168 | 0.158 | 0.166 | 0.190 | 0.177 | 8.92  |
| 27)   | 2,4-Dimethylph...     | 0.378          | 0.387 | 0.321 | 0.329 | 0.337 | 0.306 | 0.301 | 0.337 | 10.01 |
| 28)   | bis(2-Chloroet...     | 0.479          | 0.514 | 0.439 | 0.386 | 0.387 | 0.438 | 0.431 | 0.439 | 10.53 |
| 29) C | 2,4-Dichloroph...     | 0.290          | 0.313 | 0.301 | 0.259 | 0.268 | 0.278 | 0.272 | 0.283 | 6.81  |
| 30)   | 1,2,4-Trichlor...     | 0.325          | 0.322 | 0.318 | 0.302 | 0.309 | 0.296 | 0.281 | 0.308 | 5.07  |
| 31)   | Naphthalene           | 1.121          | 1.058 | 1.028 | 0.983 | 0.963 | 0.912 | 0.822 | 0.984 | 10.01 |
| 32)   | Benzoic acid          | 0.153          | 0.193 | 0.204 | 0.220 | 0.215 | 0.214 | 0.228 | 0.204 | 12.35 |
| 33)   | 4-Chloroaniline       | 0.447          | 0.463 | 0.482 | 0.407 | 0.385 | 0.354 | 0.362 | 0.414 | 12.14 |
| 34) C | Hexachlorobuta...     | 0.213          | 0.205 | 0.201 | 0.175 | 0.175 | 0.173 | 0.179 | 0.189 | 8.92  |
| 35)   | Caprolactam           | 0.080          | 0.084 | 0.079 | 0.081 | 0.075 | 0.074 | 0.078 | 0.079 | 4.34  |
| 36) C | 4-Chloro-3-met...     | 0.324          | 0.325 | 0.301 | 0.308 | 0.280 | 0.293 | 0.295 | 0.304 | 5.46  |
| 37)   | 2-Methylnaphth...     | 0.697          | 0.718 | 0.713 | 0.585 | 0.539 | 0.525 | 0.539 | 0.617 | 14.41 |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.648          | 0.637 | 0.569 | 0.624 | 0.709 | 0.659 | 0.614 | 0.637 | 6.77  |
| 40) P | Hexachlorocycl...  | 0.321          | 0.357 | 0.369 | 0.399 | 0.447 | 0.411 | 0.407 | 0.387 | 10.74 |
| 41) S | 2,4,6-Tribromo...  | 0.185          | 0.206 | 0.199 | 0.207 | 0.191 | 0.175 | 0.184 | 0.192 | 6.24  |
| 42) C | 2,4,6-Trichlor...  | 0.433          | 0.493 | 0.461 | 0.430 | 0.443 | 0.438 | 0.460 | 0.451 | 4.86  |
| 43)   | 2,4,5-Trichlor...  | 0.441          | 0.484 | 0.410 | 0.419 | 0.471 | 0.450 | 0.421 | 0.442 | 6.31  |
| 44) S | 2-Fluorobiphenyl   | 1.475          | 1.542 | 1.390 | 1.174 | 1.217 | 1.203 | 1.305 | 1.329 | 10.78 |
| 45)   | 1,1'-Biphenyl      | 1.652          | 1.608 | 1.375 | 1.544 | 1.675 | 1.477 | 1.264 | 1.514 | 10.02 |
| 46)   | 2-Chloronaphth...  | 1.408          | 1.296 | 1.155 | 1.271 | 1.333 | 1.199 | 1.105 | 1.253 | 8.45  |
| 47)   | 2-Nitroaniline     | 0.454          | 0.453 | 0.476 | 0.479 | 0.475 | 0.425 | 0.482 | 0.464 | 4.50  |
| 48)   | Acenaphthylene     | 2.028          | 2.120 | 2.111 | 1.938 | 1.904 | 1.756 | 1.874 | 1.962 | 6.76  |
| 49)   | Dimethylphthalate  | 1.523          | 1.404 | 1.325 | 1.171 | 1.330 | 1.376 | 1.204 | 1.333 | 8.99  |
| 50)   | 2,6-Dinitrotol...  | 0.264          | 0.320 | 0.276 | 0.261 | 0.310 | 0.325 | 0.269 | 0.289 | 9.67  |
| 51) C | Acenaphthene       | 1.183          | 1.277 | 1.249 | 1.163 | 1.176 | 1.083 | 1.154 | 1.183 | 5.39  |
| 52)   | 3-Nitroaniline     | 0.334          | 0.373 | 0.332 | 0.351 | 0.303 | 0.324 | 0.353 | 0.339 | 6.65  |
| 53) P | 2,4-Dinitrophenol  |                | 0.133 | 0.138 | 0.166 | 0.182 | 0.153 | 0.174 | 0.157 | 12.58 |
| 54)   | Dibenzofuran       | 1.673          | 1.728 | 1.657 | 1.533 | 1.512 | 1.375 | 1.445 | 1.560 | 8.31  |
| 55) P | 4-Nitrophenol      | 0.211          | 0.251 | 0.255 | 0.223 | 0.254 | 0.250 | 0.219 | 0.238 | 8.10  |
| 56)   | 2,4-Dinitrotol...  | 0.330          | 0.395 | 0.381 | 0.324 | 0.383 | 0.402 | 0.334 | 0.364 | 9.19  |
| 57)   | Fluorene           | 1.350          | 1.358 | 1.274 | 1.198 | 1.249 | 1.035 | 1.021 | 1.212 | 11.35 |
| 58)   | 2,3,4,6-Tetrac...  | 0.325          | 0.366 | 0.324 | 0.311 | 0.311 | 0.286 | 0.297 | 0.317 | 8.10  |
| 59)   | Diethylphthalate   | 1.326          | 1.424 | 1.268 | 1.149 | 1.276 | 1.277 | 1.247 | 1.281 | 6.48  |
| 60)   | 4-Chlorophenyl...  | 0.669          | 0.665 | 0.581 | 0.523 | 0.568 | 0.588 | 0.599 | 0.599 | 8.75  |
| 61)   | 4-Nitroaniline     | 0.288          | 0.328 | 0.338 | 0.268 | 0.339 | 0.289 | 0.304 | 0.308 | 9.02  |
| 62)   | Azobenzene         | 1.548          | 1.602 | 1.420 | 1.394 | 1.448 | 1.445 | 1.524 | 1.483 | 5.12  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.129 | 0.120 | 0.134 | 0.130 | 0.118 | 0.147 | 0.130 | 8.22  |
| 65) c | n-Nitrosodiphe...  | 0.805          | 0.763 | 0.705 | 0.691 | 0.685 | 0.604 | 0.630 | 0.697 | 10.01 |
| 66)   | 4-Bromophenyl-...  | 0.231          | 0.256 | 0.239 | 0.200 | 0.201 | 0.196 | 0.212 | 0.219 | 10.51 |
| 67)   | Hexachlorobenzene  | 0.249          | 0.261 | 0.250 | 0.237 | 0.254 | 0.248 | 0.234 | 0.248 | 3.73  |
| 68)   | Atrazine           | 0.214          | 0.190 | 0.188 | 0.179 | 0.145 | 0.114 | 0.088 | 0.160 | 28.59 |
| 69) C | Pentachlorophenol  | 0.109          | 0.150 | 0.151 | 0.129 | 0.133 | 0.130 | 0.131 | 0.133 | 10.83 |
| 70)   | Phenanthrene       | 1.183          | 1.141 | 1.029 | 1.008 | 1.035 | 0.993 | 0.897 | 1.041 | 9.17  |
| 71)   | Anthracene         | 1.160          | 1.246 | 1.100 | 0.937 | 0.916 | 0.922 | 0.946 | 1.032 | 13.03 |
| 72)   | Carbazole          | 0.994          | 0.967 | 0.810 | 0.868 | 0.917 | 0.844 | 0.782 | 0.883 | 8.97  |
| 73)   | Di-n-butylphth...  | 1.148          | 1.286 | 1.106 | 0.958 | 0.997 | 0.985 | 1.002 | 1.069 | 11.05 |
| 74) C | Fluoranthene       | 1.091          | 1.195 | 1.039 | 0.876 | 0.893 | 0.821 | 1.004 | 0.988 | 13.45 |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.708          | 0.823 | 0.763 | 0.681 | 0.550 | 0.351 | 0.252 | 0.590 | 36.56 |
| 77)   | Pyrene             | 1.720          | 1.731 | 1.530 | 1.437 | 1.352 | 1.332 | 1.287 | 1.484 | 12.32 |
| 78) S | Terphenyl-d14      | 1.158          | 1.181 | 1.049 | 0.934 | 0.893 | 0.866 | 0.911 | 0.999 | 13.06 |
| 79)   | Butylbenzylphth... | 0.541          | 0.589 | 0.589 | 0.596 | 0.595 | 0.595 | 0.574 | 0.583 | 3.42  |
| 80)   | Benzo(a)anthra...  | 1.239          | 1.259 | 1.176 | 1.113 | 1.091 | 1.022 | 1.033 | 1.133 | 8.34  |
| 81)   | 3,3'-Dichlorob...  | 0.373          | 0.431 | 0.441 | 0.431 | 0.423 | 0.383 | 0.342 | 0.403 | 9.31  |
| 82)   | Chrysene           | 1.178          | 1.272 | 1.204 | 1.128 | 1.057 | 0.977 | 0.942 | 1.108 | 10.96 |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.670          | 0.780 | 0.762 | 0.725 | 0.718 | 0.705 | 0.672 | 0.719 | 5.80  |
| 84) c | Di-n-octyl pht... | 1.047          | 1.197 | 1.156 | 1.146 | 1.143 | 1.109 | 1.156 | 1.136 | 4.14  |
| 85)   | Indeno(1,2,3-c... | 0.859          | 0.953 | 0.951 | 1.011 | 1.080 | 1.109 | 1.134 | 1.014 | 9.82  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.385          | 1.327 | 1.194 | 1.081 | 1.046 | 1.016 | 1.153 | 1.172 | 12.01 |
| 88)   | Benzo(k)fluora... | 0.958          | 1.058 | 1.076 | 1.071 | 1.094 | 1.122 | 0.780 | 1.023 | 11.62 |
| 89) C | Benzo(a)pyrene    | 0.962          | 1.072 | 1.028 | 0.987 | 0.990 | 0.978 | 0.982 | 1.000 | 3.78  |
| 90)   | Dibenzo(a,h)an... | 0.788          | 0.935 | 0.911 | 0.985 | 1.048 | 1.090 | 1.035 | 0.970 | 10.53 |
| 91)   | Benzo(g,h,i)pe... | 0.867          | 0.934 | 0.964 | 1.007 | 1.092 | 1.171 | 1.065 | 1.014 | 10.18 |

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(#) = Out of Range