

Method Path : Z:\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF102317.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Mon Oct 23 23:39:26 2017  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF099752.D 10 =BF099753.D 25 =BF099754.D 40 =BF099755.D 50 =BF099756.D 60 =BF099757.D 80 =BF099758.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.539          | 0.554 | 0.579 | 0.570 | 0.569 | 0.560 | 0.566 | 0.563 | 2.29  |
| 3)    | Pyridine              | 1.198          | 1.095 | 1.390 | 1.469 | 1.434 | 1.448 | 1.435 | 1.353 | 10.78 |
| 4)    | n-Nitrosodimet...     | 0.349          | 0.450 | 0.486 | 0.529 | 0.521 | 0.525 | 0.524 | 0.483 | 13.63 |
| 5) S  | 2-Fluorophenol        | 1.298          | 1.318 | 1.345 | 1.312 | 1.241 | 1.217 | 1.186 | 1.274 | 4.66  |
| 6)    | Aniline               | 2.093          | 2.052 | 2.048 | 1.992 | 1.888 | 1.853 | 1.784 | 1.959 | 5.99  |
| 7) S  | Phenol-d6             | 1.604          | 1.620 | 1.571 | 1.526 | 1.447 | 1.428 | 1.378 | 1.511 | 6.21  |
| 8)    | 2-Chlorophenol        | 1.384          | 1.441 | 1.435 | 1.400 | 1.311 | 1.294 | 1.240 | 1.358 | 5.68  |
| 9)    | Benzaldehyde          | 0.956          | 0.963 | 0.952 | 0.919 | 0.868 | 0.856 | 0.803 | 0.903 | 6.80  |
| 10) C | Phenol                | 1.730          | 1.750 | 1.753 | 1.704 | 1.588 | 1.562 | 1.522 | 1.658 | 5.89  |
| 11)   | bis(2-Chloroet...     | 1.237          | 1.304 | 1.318 | 1.331 | 1.271 | 1.263 | 1.241 | 1.281 | 2.92  |
| 12)   | 1,3-Dichlorobe...     | 1.572          | 1.593 | 1.595 | 1.541 | 1.477 | 1.475 | 1.417 | 1.524 | 4.52  |
| 13) C | 1,4-Dichlorobe...     | 1.663          | 1.614 | 1.611 | 1.575 | 1.489 | 1.467 | 1.411 | 1.547 | 5.95  |
| 14)   | 1,2-Dichlorobe...     | 1.529          | 1.515 | 1.513 | 1.425 | 1.347 | 1.316 | 1.225 | 1.410 | 8.34  |
| 15)   | Benzyl Alcohol        | 1.058          | 1.090 | 1.040 | 0.957 | 0.895 | 0.877 | 0.806 | 0.961 | 11.05 |
| 16)   | 2,2'-oxybis(1-...     | 1.502          | 1.479 | 1.475 | 1.444 | 1.379 | 1.362 | 1.318 | 1.423 | 4.91  |
| 17)   | 2-Methylphenol        | 1.200          | 1.198 | 1.106 | 1.158 | 1.114 | 1.097 | 1.077 | 1.136 | 4.38  |
| 18)   | Hexachloroethane      | 0.543          | 0.533 | 0.535 | 0.522 | 0.502 | 0.497 | 0.481 | 0.516 | 4.42  |
| 19) P | n-Nitroso-di-n...     | 0.987          | 0.970 | 0.936 | 0.879 | 0.810 | 0.805 | 0.808 | 0.885 | 9.02  |
| 20)   | 3+4-Methylphenols     | 1.522          | 1.507 | 1.448 | 1.311 | 1.202 | 1.172 | 1.094 | 1.322 | 13.07 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.516          | 0.515 | 0.471 | 0.445 | 0.427 | 0.418 | 0.395 | 0.455 | 10.35 |
| 23) S | Nitrobenzene-d5       | 0.326          | 0.328 | 0.314 | 0.309 | 0.306 | 0.303 | 0.289 | 0.311 | 4.36  |
| 24)   | Nitrobenzene          | 0.317          | 0.329 | 0.316 | 0.321 | 0.310 | 0.308 | 0.292 | 0.313 | 3.73  |
| 25)   | Isophorone            | 0.557          | 0.584 | 0.564 | 0.567 | 0.562 | 0.559 | 0.554 | 0.564 | 1.73  |
| 26) C | 2-Nitrophenol         | 0.154          | 0.182 | 0.183 | 0.189 | 0.183 | 0.186 | 0.177 | 0.179 | 6.54  |
| 27)   | 2,4-Dimethylph...     | 0.266          | 0.286 | 0.268 | 0.266 | 0.260 | 0.257 | 0.247 | 0.264 | 4.53  |
| 28)   | bis(2-Chloroet...     | 0.410          | 0.422 | 0.405 | 0.392 | 0.386 | 0.382 | 0.367 | 0.395 | 4.73  |
| 29) C | 2,4-Dichloroph...     | 0.286          | 0.285 | 0.282 | 0.279 | 0.270 | 0.268 | 0.252 | 0.274 | 4.46  |
| 30)   | 1,2,4-Trichlor...     | 0.306          | 0.318 | 0.296 | 0.297 | 0.286 | 0.282 | 0.267 | 0.293 | 5.72  |
| 31)   | Naphthalene           | 1.075          | 1.058 | 0.976 | 0.963 | 0.924 | 0.910 | 0.852 | 0.965 | 8.26  |
| 32)   | Benzoic acid          |                | 0.205 | 0.232 | 0.230 | 0.239 | 0.241 | 0.247 | 0.233 | 6.35  |
| 33)   | 4-Chloroaniline       | 0.420          | 0.433 | 0.414 | 0.406 | 0.386 | 0.380 | 0.351 | 0.399 | 7.01  |
| 34) C | Hexachlorobuta...     | 0.159          | 0.164 | 0.155 | 0.149 | 0.148 | 0.144 | 0.137 | 0.151 | 6.10  |
| 35)   | Caprolactam           | 0.082          | 0.090 | 0.087 | 0.088 | 0.088 | 0.088 | 0.081 | 0.086 | 3.91  |
| 36) C | 4-Chloro-3-met...     | 0.290          | 0.307 | 0.286 | 0.281 | 0.270 | 0.269 | 0.257 | 0.280 | 5.89  |
| 37)   | 2-Methylnaphth...     | 0.718          | 0.708 | 0.665 | 0.638 | 0.618 | 0.611 | 0.570 | 0.647 | 8.29  |

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|     |   |                    |                |       |       |       |       |       |       |       |       |
|-----|---|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) | I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39) |   | 1,2,4,5-Tetrac...  | 0.714          | 0.687 | 0.658 | 0.645 | 0.630 | 0.620 | 0.569 | 0.646 | 7.31  |
| 40) | P | Hexachlorocycl...  |                | 0.018 | 0.058 | 0.097 | 0.115 | 0.127 | 0.144 | 0.093 | 50.51 |
| 41) | S | 2,4,6-Tribromo...  | 0.196          | 0.202 | 0.190 | 0.182 | 0.176 | 0.171 | 0.160 | 0.182 | 7.97  |
| 42) | C | 2,4,6-Trichlor...  | 0.408          | 0.406 | 0.400 | 0.388 | 0.386 | 0.383 | 0.364 | 0.391 | 3.93  |
| 43) |   | 2,4,5-Trichlor...  | 0.411          | 0.433 | 0.416 | 0.433 | 0.414 | 0.413 | 0.383 | 0.415 | 4.06  |
| 44) | S | 2-Fluorobiphenyl   |                | 1.568 | 1.380 | 1.321 | 1.223 | 1.197 | 1.089 | 1.296 | 12.89 |
| 45) |   | 1,1'-Biphenyl      | 2.049          | 2.032 | 1.849 | 1.788 | 1.707 | 1.692 | 1.548 | 1.809 | 10.13 |
| 46) |   | 2-Chloronaphth...  | 1.455          | 1.444 | 1.320 | 1.316 | 1.254 | 1.252 | 1.157 | 1.314 | 8.16  |
| 47) |   | 2-Nitroaniline     | 0.337          | 0.356 | 0.351 | 0.354 | 0.347 | 0.341 | 0.328 | 0.345 | 2.92  |
| 48) |   | Acenaphthylene     | 2.318          | 2.262 | 2.107 | 2.003 | 1.906 | 1.857 | 1.715 | 2.024 | 10.83 |
| 49) |   | Dimethylphthalate  | 1.692          | 1.687 | 1.611 | 1.585 | 1.535 | 1.522 | 1.454 | 1.584 | 5.54  |
| 50) |   | 2,6-Dinitrotol...  | 0.337          | 0.351 | 0.340 | 0.341 | 0.329 | 0.326 | 0.306 | 0.333 | 4.35  |
| 51) | C | Acenaphthene       | 1.402          | 1.378 | 1.282 | 1.216 | 1.163 | 1.150 | 1.065 | 1.237 | 10.04 |
| 52) |   | 3-Nitroaniline     | 0.379          | 0.417 | 0.410 | 0.398 | 0.393 | 0.384 | 0.364 | 0.392 | 4.60  |
| 53) | P | 2,4-Dinitrophenol  |                | 0.080 | 0.102 | 0.120 | 0.124 | 0.127 | 0.133 | 0.114 | 17.49 |
| 54) |   | Dibenzofuran       | 2.096          | 1.989 | 1.805 | 1.711 | 1.604 | 1.577 | 1.437 | 1.746 | 13.44 |
| 55) | P | 4-Nitrophenol      |                | 0.183 | 0.208 | 0.217 | 0.206 | 0.211 | 0.205 | 0.205 | 5.75  |
| 56) |   | 2,4-Dinitrotol...  | 0.427          | 0.454 | 0.422 | 0.405 | 0.380 | 0.374 | 0.344 | 0.401 | 9.33  |
| 57) |   | Fluorene           | 1.686          | 1.651 | 1.509 | 1.423 | 1.341 | 1.325 | 1.181 | 1.445 | 12.64 |
| 58) |   | 2,3,4,6-Tetrac...  | 0.285          | 0.297 | 0.301 | 0.298 | 0.291 | 0.287 | 0.276 | 0.291 | 2.94  |
| 59) |   | Diethylphthalate   | 1.751          | 1.683 | 1.566 | 1.536 | 1.470 | 1.456 | 1.365 | 1.547 | 8.67  |
| 60) |   | 4-Chlorophenyl...  | 0.811          | 0.766 | 0.700 | 0.666 | 0.631 | 0.622 | 0.564 | 0.680 | 12.66 |
| 61) |   | 4-Nitroaniline     | 0.366          | 0.402 | 0.384 | 0.385 | 0.370 | 0.374 | 0.339 | 0.374 | 5.25  |
| 62) |   | Azobenzene         | 1.401          | 1.419 | 1.327 | 1.313 | 1.246 | 1.226 | 1.144 | 1.297 | 7.58  |
|     |   |                    |                |       |       |       |       |       |       |       |       |
| 63) | I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64) |   | 4,6-Dinitro-2-...  |                | 0.106 | 0.122 | 0.131 | 0.131 | 0.136 | 0.129 | 0.126 | 8.47  |
| 65) | c | n-Nitrosodipe...   | 0.804          | 0.823 | 0.756 | 0.723 | 0.709 | 0.703 | 0.651 | 0.738 | 8.15  |
| 66) |   | 4-Bromophenyl-...  | 0.222          | 0.228 | 0.215 | 0.207 | 0.207 | 0.204 | 0.191 | 0.211 | 5.87  |
| 67) |   | Hexachlorobenzene  | 0.232          | 0.234 | 0.220 | 0.214 | 0.207 | 0.208 | 0.193 | 0.215 | 6.70  |
| 68) |   | Atrazine           | 0.236          | 0.243 | 0.226 | 0.225 | 0.211 | 0.212 | 0.200 | 0.222 | 6.70  |
| 69) | C | Pentachlorophenol  |                | 0.076 | 0.087 | 0.091 | 0.098 | 0.099 | 0.101 | 0.092 | 10.41 |
| 70) |   | Phenanthrene       | 1.318          | 1.265 | 1.164 | 1.105 | 1.052 | 1.047 | 0.949 | 1.129 | 11.49 |
| 71) |   | Anthracene         | 1.305          | 1.300 | 1.190 | 1.117 | 1.073 | 1.065 | 0.971 | 1.146 | 10.94 |
| 72) |   | Carbazole          | 1.227          | 1.216 | 1.118 | 1.062 | 1.001 | 0.997 | 0.921 | 1.077 | 10.74 |
| 73) |   | Di-n-butylphth...  | 1.487          | 1.538 | 1.434 | 1.368 | 1.310 | 1.299 | 1.182 | 1.374 | 8.90  |
| 74) | C | Fluoranthene       | 1.355          | 1.330 | 1.223 | 1.154 | 1.090 | 1.080 | 0.980 | 1.173 | 11.72 |
|     |   |                    |                |       |       |       |       |       |       |       |       |
| 75) | I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76) |   | Benzidine          | 1.039          | 0.954 | 0.868 | 0.858 | 0.829 | 0.822 | 0.756 | 0.875 | 10.70 |
| 77) |   | Pyrene             | 1.564          | 1.602 | 1.494 | 1.534 | 1.496 | 1.476 | 1.479 | 1.521 | 3.13  |
| 78) | S | Terphenyl-d14      | 1.055          | 1.028 | 0.911 | 0.900 | 0.863 | 0.847 | 0.802 | 0.915 | 10.25 |
| 79) |   | Butylbenzylphth... | 0.702          | 0.761 | 0.757 | 0.774 | 0.747 | 0.756 | 0.744 | 0.749 | 3.05  |
| 80) |   | Benzo(a)anthra...  | 1.348          | 1.331 | 1.271 | 1.285 | 1.227 | 1.238 | 1.176 | 1.268 | 4.74  |
| 81) |   | 3,3'-Dichlorob...  | 0.506          | 0.530 | 0.500 | 0.470 | 0.434 | 0.415 | 0.367 | 0.460 | 12.58 |
| 82) |   | Chrysene           | 1.283          | 1.300 | 1.196 | 1.205 | 1.154 | 1.134 | 1.073 | 1.192 | 6.77  |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 1.275          | 1.148 | 1.060 | 1.042 | 0.979 | 0.961 | 0.898 | 1.052 | 12.04 |
| 84) c | Di-n-octyl pht... | 1.858          | 1.930 | 1.830 | 1.853 | 1.766 | 1.753 | 1.645 | 1.805 | 5.12  |
| 85)   | Indeno(1,2,3-c... | 1.239          | 1.250 | 1.122 | 1.049 | 1.010 | 1.011 | 0.980 | 1.094 | 10.23 |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.339          | 1.267 | 1.234 | 1.206 | 1.260 | 1.255 | 1.279 | 1.263 | 3.26  |
| 88)   | Benzo(k)fluora... | 1.287          | 1.321 | 1.213 | 1.255 | 1.150 | 1.121 | 0.988 | 1.191 | 9.60  |
| 89) C | Benzo(a)pyrene    | 1.188          | 1.204 | 1.148 | 1.140 | 1.114 | 1.102 | 1.045 | 1.134 | 4.75  |
| 90)   | Dibenzo(a,h)an... | 1.125          | 1.097 | 1.012 | 0.978 | 0.963 | 0.957 | 0.925 | 1.008 | 7.46  |
| 91)   | Benzo(g,h,i)pe... | 1.070          | 1.054 | 0.983 | 0.960 | 0.944 | 0.948 | 0.943 | 0.986 | 5.48  |

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(#) = Out of Range