

Method Path : Z:\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF102616.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Oct 26 16:35:31 2016  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF090835.D 10 =BF090836.D 25 =BF090837.D 40 =BF090838.D 50 =BF090839.D 60 =BF090840.D 80 =BF090841.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.544          | 0.647 | 0.625 | 0.605 | 0.531 | 0.599 | 0.542 | 0.585 | 7.80  |
| 3)    | Pyridine              | 1.531          | 1.512 | 1.690 | 1.691 | 1.495 | 1.728 | 1.459 | 1.586 | 7.04  |
| 4)    | n-Nitrosodimet...     | 0.392          | 0.388 | 0.517 | 0.439 | 0.428 | 0.539 | 0.423 | 0.447 | 13.22 |
| 5) S  | 2-Fluorophenol        | 1.059          | 1.168 | 1.298 | 1.139 | 1.120 | 1.131 | 1.091 | 1.144 | 6.69  |
| 6)    | Aniline               | 1.677          | 1.891 | 1.921 | 1.868 | 1.815 | 1.780 | 1.389 | 1.763 | 10.42 |
| 7) S  | Phenol-d6             | 1.704          | 1.628 | 1.686 | 1.617 | 1.558 | 1.408 | 1.202 | 1.543 | 11.64 |
| 8)    | 2-Chlorophenol        | 1.549          | 1.548 | 1.471 | 1.526 | 1.405 | 1.315 | 1.064 | 1.411 | 12.43 |
| 9)    | Benzaldehyde          | 0.854          | 0.902 | 0.797 | 0.756 | 0.676 |       | 0.797 |       | 10.97 |
| 10) C | Phenol                | 2.014          | 1.740 | 1.888 | 1.679 | 1.754 | 1.447 | 1.382 | 1.701 | 13.24 |
| 11)   | bis(2-Chloroet...     | 1.435          | 1.538 | 1.516 | 1.554 | 1.386 | 1.318 | 1.102 | 1.407 | 11.34 |
| 12)   | 1,3-Dichlorobe...     | 1.500          | 1.518 | 1.564 | 1.526 | 1.371 | 1.342 | 1.282 | 1.443 | 7.56  |
| 13) C | 1,4-Dichlorobe...     | 1.594          | 1.621 | 1.655 | 1.639 | 1.425 | 1.412 | 1.278 | 1.518 | 9.59  |
| 14)   | 1,2-Dichlorobe...     | 1.729          | 1.621 | 1.446 | 1.461 | 1.355 | 1.402 | 1.173 | 1.455 | 12.39 |
| 15)   | Benzyl Alcohol        | 1.059          | 1.075 | 1.124 | 1.118 | 0.943 | 0.898 | 0.878 | 1.014 | 10.31 |
| 16)   | 2,2'-oxybis(1-...     | 1.567          | 1.352 | 1.612 | 1.269 | 1.278 | 1.323 | 1.400 |       | 10.75 |
| 17)   | 2-Methylphenol        | 1.125          | 1.130 | 1.094 | 1.167 | 0.981 | 0.986 | 1.031 | 1.073 | 6.91  |
| 18)   | Hexachloroethane      | 0.677          | 0.590 | 0.557 | 0.550 | 0.500 | 0.488 | 0.505 | 0.552 | 11.94 |
| 19) P | n-Nitroso-di-n...     | 1.039          | 0.933 | 1.004 | 0.749 | 0.857 | 0.772 | 0.892 |       | 13.41 |
| 20)   | 3+4-Methylphenols     | 1.231          | 1.393 | 1.353 | 1.412 | 1.172 | 1.004 | 1.134 | 1.243 | 12.19 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.458          | 0.452 | 0.421 | 0.436 | 0.354 | 0.374 | 0.384 | 0.411 | 9.85  |
| 23) S | Nitrobenzene-d5       | 0.339          | 0.318 | 0.301 | 0.335 | 0.276 | 0.261 | 0.309 | 0.306 | 9.52  |
| 24)   | Nitrobenzene          | 0.361          | 0.340 | 0.334 | 0.320 | 0.279 | 0.315 | 0.312 | 0.323 | 8.00  |
| 25)   | Isophorone            | 0.744          | 0.610 | 0.630 | 0.621 | 0.630 | 0.546 | 0.560 | 0.620 | 10.37 |
| 26) C | 2-Nitrophenol         | 0.137          | 0.166 | 0.181 | 0.215 | 0.191 | 0.166 | 0.156 | 0.173 | 14.55 |
| 27)   | 2,4-Dimethylph...     | 0.264          | 0.280 | 0.276 | 0.330 | 0.284 | 0.248 | 0.279 | 0.280 | 8.92  |
| 28)   | bis(2-Chloroet...     | 0.382          | 0.343 | 0.372 | 0.400 | 0.344 | 0.294 | 0.334 | 0.353 | 9.98  |
| 29) C | 2,4-Dichloroph...     | 0.221          | 0.263 | 0.280 | 0.283 | 0.253 | 0.260 | 0.256 | 0.260 | 7.89  |
| 30)   | 1,2,4-Trichlor...     | 0.278          | 0.322 | 0.312 | 0.318 | 0.287 | 0.287 | 0.295 | 0.300 | 5.72  |
| 31)   | Naphthalene           | 1.101          | 1.047 | 0.988 | 0.888 | 0.825 | 0.855 | 0.840 | 0.935 | 11.79 |
| 32)   | Benzoic acid          | 0.155          | 0.189 | 0.220 | 0.219 | 0.208 | 0.230 | 0.203 |       | 13.48 |
| 33)   | 4-Chloroaniline       | 0.333          | 0.362 | 0.408 | 0.438 | 0.358 | 0.373 | 0.372 | 0.378 | 9.22  |
| 34) C | Hexachlorobuta...     | 0.144          | 0.176 | 0.182 | 0.200 | 0.183 | 0.177 | 0.171 | 0.176 | 9.53  |
| 35)   | Caprolactam           | 0.072          | 0.082 | 0.084 | 0.094 | 0.074 | 0.071 | 0.088 | 0.081 | 10.65 |
| 36) C | 4-Chloro-3-met...     | 0.284          | 0.296 | 0.307 | 0.304 | 0.262 | 0.245 | 0.276 | 0.282 | 8.13  |
| 37)   | 2-Methylnaphth...     | 0.616          | 0.646 | 0.650 | 0.682 | 0.569 | 0.562 | 0.501 | 0.604 | 10.42 |

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|     |   |                    |                |       |       |       |       |       |       |       |
|-----|---|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 38) | I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |
| 39) |   | 1,2,4,5-Tetrac...  | 0.535          | 0.590 | 0.558 | 0.513 | 0.543 | 0.553 | 0.549 | 4.27  |
| 40) | P | Hexachlorocycl...  |                | 0.228 | 0.244 | 0.245 | 0.254 | 0.258 | 0.286 | 7.71  |
| 41) | S | 2,4,6-Tribromo...  | 0.195          | 0.197 | 0.229 | 0.198 | 0.195 | 0.215 | 0.210 | 6.40  |
| 42) | C | 2,4,6-Trichlor...  | 0.323          | 0.377 | 0.370 | 0.335 | 0.353 | 0.351 | 0.370 | 5.57  |
| 43) |   | 2,4,5-Trichlor...  | 0.367          | 0.362 | 0.376 | 0.387 | 0.363 | 0.339 | 0.361 | 4.06  |
| 44) | S | 2-Fluorobiphenyl   | 1.458          | 1.281 | 1.258 | 1.098 | 0.992 | 0.877 | 1.010 | 17.71 |
| 45) |   | 1,1'-Biphenyl      | 1.729          | 1.655 | 1.441 | 1.432 | 1.452 | 1.258 | 1.117 | 14.67 |
| 46) |   | 2-Chloronaphth...  | 1.238          | 1.231 | 1.103 | 1.108 | 1.107 | 0.984 | 0.900 | 11.16 |
| 47) |   | 2-Nitroaniline     | 0.353          | 0.306 | 0.342 | 0.301 | 0.296 | 0.271 | 0.294 | 9.26  |
| 48) |   | Acenaphthylene     |                | 2.004 | 1.801 | 1.724 | 1.544 | 1.429 | 1.452 | 13.53 |
| 49) |   | Dimethylphthalate  | 1.593          | 1.379 | 1.379 | 1.297 | 1.247 | 1.167 | 1.293 | 10.11 |
| 50) |   | 2,6-Dinitrotol...  | 0.274          | 0.322 | 0.288 | 0.320 | 0.295 | 0.252 | 0.315 | 8.78  |
| 51) | C | Acenaphthene       | 1.351          | 1.223 | 1.247 | 1.126 | 1.029 | 0.966 | 1.058 | 11.98 |
| 52) |   | 3-Nitroaniline     | 0.321          | 0.294 | 0.318 | 0.323 | 0.336 | 0.295 | 0.313 | 4.85  |
| 53) | P | 2,4-Dinitrophenol  |                | 0.124 | 0.149 | 0.157 | 0.168 | 0.164 | 0.170 | 11.00 |
| 54) |   | Dibenzofuran       | 1.693          | 1.569 | 1.626 | 1.477 | 1.323 | 1.224 | 1.410 | 11.41 |
| 55) | P | 4-Nitrophenol      |                | 0.143 | 0.187 | 0.204 | 0.193 | 0.213 | 0.210 | 13.55 |
| 56) |   | 2,4-Dinitrotol...  | 0.355          | 0.408 | 0.368 | 0.395 | 0.332 | 0.340 | 0.367 | 7.50  |
| 57) |   | Fluorene           | 1.493          | 1.377 | 1.341 | 1.237 | 1.043 | 0.924 | 1.040 | 17.38 |
| 58) |   | 2,3,4,6-Tetrac...  | 0.339          | 0.342 | 0.329 | 0.301 | 0.317 | 0.327 | 0.326 | 4.19  |
| 59) |   | Diethylphthalate   | 1.555          | 1.433 | 1.456 | 1.234 | 1.302 | 1.206 | 1.104 | 12.04 |
| 60) |   | 4-Chlorophenyl...  | 0.678          | 0.696 | 0.641 | 0.535 | 0.521 | 0.516 | 0.540 | 13.34 |
| 61) |   | 4-Nitroaniline     | 0.246          | 0.336 | 0.340 | 0.314 | 0.326 | 0.295 | 0.321 | 10.45 |
| 62) |   | Azobenzene         | 1.528          | 1.622 | 1.528 | 1.117 | 1.160 | 1.016 | 1.165 | 18.77 |
| 63) | I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |
| 64) |   | 4,6-Dinitro-2-...  |                | 0.110 | 0.138 | 0.150 | 0.134 | 0.131 | 0.133 | 9.68  |
| 65) | c | n-Nitrosodiphe...  | 0.645          | 0.660 | 0.683 | 0.617 | 0.557 | 0.539 | 0.588 | 8.78  |
| 66) |   | 4-Bromophenyl-...  | 0.210          | 0.219 | 0.249 | 0.217 | 0.208 | 0.206 | 0.224 | 6.69  |
| 67) |   | Hexachlorobenzene  | 0.265          | 0.240 | 0.283 | 0.278 | 0.265 | 0.241 | 0.241 | 7.04  |
| 68) |   | Atrazine           | 0.215          | 0.201 | 0.224 | 0.161 | 0.188 | 0.190 | 0.147 | 14.58 |
| 69) | C | Pentachlorophenol  |                | 0.113 | 0.139 | 0.146 | 0.153 | 0.145 | 0.138 | 10.08 |
| 70) |   | Phenanthrene       | 1.210          | 1.119 | 1.102 | 1.060 | 0.943 | 0.870 | 0.824 | 13.93 |
| 71) |   | Anthracene         | 1.214          | 1.213 | 1.151 | 1.010 | 1.012 | 1.014 | 0.893 | 11.36 |
| 72) |   | Carbazole          | 1.017          | 1.016 | 1.068 | 0.947 | 0.845 | 0.852 | 0.884 | 9.39  |
| 73) |   | Di-n-butylphth...  | 1.465          | 1.406 | 1.205 | 1.174 | 1.123 | 1.148 | 1.025 | 12.94 |
| 74) | C | Fluoranthene       | 1.305          | 1.244 | 1.131 | 1.136 | 1.094 | 1.007 | 0.891 | 12.46 |
| 75) | I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |
| 76) |   | Benzidine          | 0.420          | 0.540 | 0.519 | 0.443 | 0.411 | 0.350 | 0.374 | 16.16 |
| 77) |   | Pyrene             | 1.473          | 1.458 | 1.290 | 1.309 | 1.172 | 1.125 | 1.032 | 13.13 |
| 78) | S | Terphenyl-d14      | 0.966          | 0.965 | 0.852 | 0.830 | 0.687 | 0.632 | 0.625 | 18.51 |
| 79) |   | Butylbenzylphth... | 0.527          | 0.655 | 0.618 | 0.554 | 0.532 | 0.549 | 0.585 | 8.28  |
| 80) |   | Benzo(a)anthra...  | 1.171          | 1.240 | 1.162 | 1.029 | 0.990 | 0.937 | 0.901 | 12.25 |
| 81) |   | 3,3'-Dichlorob...  | 0.417          | 0.440 | 0.474 | 0.447 | 0.371 | 0.352 | 0.384 | 10.85 |
| 82) |   | Chrysene           | 1.197          | 1.189 | 1.273 | 1.045 | 0.869 | 0.947 | 0.994 | 13.87 |

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|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.742          | 0.991 | 0.825 | 0.762 | 0.678 | 0.644 | 0.593 | 0.748 | 17.69 |
| 84) c | Di-n-octyl pht... | 1.256          | 1.616 | 1.408 | 1.224 | 1.030 | 1.132 | 1.125 | 1.256 | 15.84 |
| 85)   | Indeno(1,2,3-c... | 1.130          | 1.146 | 1.038 | 0.869 | 0.807 | 0.858 | 0.811 | 0.951 | 15.66 |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.502          | 1.228 | 1.227 | 1.537 | 1.388 | 1.333 | 1.201 | 1.345 | 10.16 |
| 88)   | Benzo(k)fluora... | 0.969          | 1.084 | 1.277 | 1.025 | 0.929 | 1.001 | 1.153 | 1.063 | 11.30 |
| 89) C | Benzo(a)pyrene    | 1.262          | 1.162 | 1.162 | 1.222 | 1.136 | 1.099 | 1.046 | 1.156 | 6.25  |
| 90)   | Dibenzo(a,h)an... | 1.066          | 1.044 | 1.015 | 0.985 | 0.911 | 0.926 | 0.900 | 0.978 | 6.84  |
| 91)   | Benzo(g,h,i)pe... | 1.088          | 1.007 | 0.933 | 0.906 | 0.837 | 0.828 | 0.850 | 0.921 | 10.52 |

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(#) = Out of Range