

Method Path : Z:\HPCHEM1\BNA\_N\METHODS\  
 Method File : 8270-BN041818.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Apr 18 16:58:01 2018  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BN000732.D 10 =BN000733.D 25 =BN000734.D 40 =BN000735.D 50 =BN000736.D 60 =BN000737.D 80 =BN000738.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |      |
| 2)    | 1,4-Dioxane           | 0.688          | 0.622 | 0.609 | 0.618 | 0.605 | 0.589 | 0.591 | 0.618 | 5.38 |
| 3)    | Pyridine              | 1.479          | 1.672 | 1.696 | 1.790 | 1.639 | 1.564 | 1.548 | 1.627 | 6.44 |
| 4)    | n-Nitrosodimet...     | 0.384          | 0.447 | 0.456 | 0.485 | 0.457 | 0.451 | 0.451 | 0.447 | 6.80 |
| 5) S  | 2-Fluorophenol        | 1.285          | 1.347 | 1.352 | 1.411 | 1.359 | 1.335 | 1.336 | 1.346 | 2.76 |
| 6)    | Aniline               | 2.282          | 2.506 | 2.438 | 2.536 | 2.521 | 2.404 | 2.352 | 2.434 | 3.89 |
| 7) S  | Phenol-d6             | 1.707          | 1.873 | 1.847 | 1.937 | 1.891 | 1.810 | 1.778 | 1.835 | 4.19 |
| 8)    | 2-Chlorophenol        | 1.344          | 1.411 | 1.383 | 1.464 | 1.415 | 1.372 | 1.359 | 1.392 | 2.93 |
| 9)    | Benzaldehyde          | 1.102          | 0.962 | 0.893 | 0.798 | 0.703 | 0.621 | 0.846 | 20.78 |      |
| 10) C | Phenol                | 1.871          | 1.968 | 1.933 | 2.024 | 1.985 | 1.893 | 1.865 | 1.934 | 3.15 |
| 11)   | bis(2-Chloroet...     | 1.569          | 1.639 | 1.573 | 1.632 | 1.603 | 1.539 | 1.520 | 1.582 | 2.85 |
| 12)   | 1,3-Dichlorobe...     | 1.655          | 1.640 | 1.608 | 1.643 | 1.617 | 1.590 | 1.568 | 1.617 | 1.95 |
| 13) C | 1,4-Dichlorobe...     | 1.681          | 1.658 | 1.615 | 1.695 | 1.634 | 1.608 | 1.603 | 1.642 | 2.23 |
| 14)   | 1,2-Dichlorobe...     | 1.627          | 1.617 | 1.554 | 1.587 | 1.568 | 1.518 | 1.499 | 1.567 | 3.04 |
| 15)   | Benzyl Alcohol        | 1.027          | 1.199 | 1.253 | 1.376 | 1.385 | 1.308 | 1.286 | 1.262 | 9.71 |
| 16)   | 2,2'-oxybis(1-...     | 1.718          | 1.768 | 1.694 | 1.735 | 1.688 | 1.590 | 1.570 | 1.680 | 4.41 |
| 17)   | 2-Methylphenol        | 1.173          | 1.314 | 1.310 | 1.369 | 1.367 | 1.298 | 1.271 | 1.300 | 5.11 |
| 18)   | Hexachloroethane      | 0.558          | 0.595 | 0.598 | 0.635 | 0.622 | 0.615 | 0.612 | 0.605 | 4.10 |
| 19) P | n-Nitroso-di-n...     | 0.999          | 1.175 | 1.164 | 1.241 | 1.209 | 1.116 | 1.087 | 1.141 | 7.16 |
| 20)   | 3+4-Methylphenols     | 1.565          | 1.819 | 1.790 | 1.920 | 1.898 | 1.771 | 1.743 | 1.787 | 6.56 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |      |
| 22)   | Acetophenone          | 0.550          | 0.584 | 0.583 | 0.595 | 0.576 | 0.564 | 0.559 | 0.573 | 2.78 |
| 23) S | Nitrobenzene-d5       | 0.322          | 0.372 | 0.389 | 0.411 | 0.400 | 0.396 | 0.395 | 0.384 | 7.77 |
| 24)   | Nitrobenzene          | 0.368          | 0.408 | 0.413 | 0.436 | 0.420 | 0.417 | 0.417 | 0.411 | 5.08 |
| 25)   | Isophorone            | 0.571          | 0.681 | 0.693 | 0.749 | 0.747 | 0.714 | 0.711 | 0.695 | 8.66 |
| 26) C | 2-Nitrophenol         | 0.144          | 0.159 | 0.174 | 0.179 | 0.177 | 0.178 | 0.169 | 0.169 | 8.26 |
| 27)   | 2,4-Dimethylph...     | 0.241          | 0.277 | 0.279 | 0.285 | 0.287 | 0.279 | 0.278 | 0.275 | 5.58 |
| 28)   | bis(2-Chloroet...     | 0.429          | 0.463 | 0.452 | 0.478 | 0.460 | 0.446 | 0.444 | 0.453 | 3.45 |
| 29) C | 2,4-Dichloroph...     | 0.224          | 0.270 | 0.273 | 0.282 | 0.288 | 0.280 | 0.279 | 0.271 | 7.89 |
| 30)   | 1,2,4-Trichlor...     | 0.326          | 0.327 | 0.322 | 0.330 | 0.327 | 0.327 | 0.326 | 0.327 | 0.72 |
| 31)   | Naphthalene           | 1.118          | 1.099 | 1.074 | 1.067 | 1.067 | 1.054 | 1.048 | 1.075 | 2.33 |
| 32)   | Benzoic acid          | 0.170          | 0.207 | 0.257 | 0.272 | 0.258 | 0.266 | 0.238 | 17.03 |      |
| 33)   | 4-Chloroaniline       | 0.396          | 0.448 | 0.440 | 0.457 | 0.459 | 0.437 | 0.436 | 0.439 | 4.75 |
| 34) C | Hexachlorobuta...     | 0.175          | 0.175 | 0.172 | 0.175 | 0.180 | 0.182 | 0.182 | 0.177 | 2.25 |
| 35)   | Caprolactam           | 0.083          | 0.084 | 0.100 | 0.105 | 0.093 | 0.098 | 0.094 | 9.35  |      |
| 36) C | 4-Chloro-3-met...     | 0.255          | 0.323 | 0.315 | 0.342 | 0.349 | 0.327 | 0.328 | 0.320 | 9.57 |
| 37)   | 2-Methylnaphth...     | 0.714          | 0.734 | 0.697 | 0.707 | 0.713 | 0.686 | 0.680 | 0.704 | 2.64 |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.594          | 0.609 | 0.631 | 0.618 | 0.613 | 0.640 | 0.636 | 0.620 | 2.66  |
| 40) P | Hexachlorocycl...  |                | 0.306 | 0.345 | 0.361 | 0.370 | 0.403 | 0.397 | 0.364 | 9.85  |
| 41) S | 2,4,6-Tribromo...  | 0.158          | 0.198 | 0.191 | 0.212 | 0.220 | 0.211 | 0.219 | 0.201 | 10.88 |
| 42) C | 2,4,6-Trichlor...  | 0.288          | 0.362 | 0.384 | 0.395 | 0.398 | 0.405 | 0.401 | 0.376 | 10.98 |
| 43)   | 2,4,5-Trichlor...  | 0.356          | 0.431 | 0.438 | 0.449 | 0.457 | 0.457 | 0.454 | 0.435 | 8.25  |
| 44) S | 2-Fluorobiphenyl   | 1.512          | 1.494 | 1.492 | 1.410 | 1.400 | 1.438 | 1.396 | 1.449 | 3.41  |
| 45)   | 1,1'-Biphenyl      | 1.808          | 1.803 | 1.814 | 1.797 | 1.746 | 1.798 | 1.765 | 1.790 | 1.40  |
| 46)   | 2-Chloronaphth...  | 1.337          | 1.343 | 1.359 | 1.329 | 1.326 | 1.362 | 1.340 | 1.342 | 1.04  |
| 47)   | 2-Nitroaniline     |                | 0.325 | 0.370 | 0.402 | 0.413 | 0.409 | 0.417 | 0.389 | 9.14  |
| 48)   | Acenaphthylene     | 1.963          | 2.155 | 2.159 | 2.171 | 2.144 | 2.160 | 2.143 | 2.128 | 3.45  |
| 49)   | Dimethylphthalate  | 1.553          | 1.648 | 1.561 | 1.614 | 1.630 | 1.578 | 1.604 | 1.598 | 2.23  |
| 50)   | 2,6-Dinitrotol...  |                | 0.315 | 0.320 | 0.350 | 0.353 | 0.343 | 0.351 | 0.339 | 4.98  |
| 51) C | Acenaphthene       | 1.317          | 1.332 | 1.304 | 1.301 | 1.272 | 1.281 | 1.271 | 1.297 | 1.80  |
| 52)   | 3-Nitroaniline     |                | 0.358 | 0.361 | 0.401 | 0.403 | 0.389 | 0.400 | 0.385 | 5.33  |
| 53) P | 2,4-Dinitrophenol  |                | 0.114 | 0.130 | 0.160 | 0.175 | 0.167 | 0.178 | 0.154 | 17.03 |
| 54)   | Dibenzofuran       | 1.959          | 1.953 | 1.859 | 1.922 | 1.855 | 1.829 | 1.838 | 1.888 | 2.93  |
| 55) P | 4-Nitrophenol      |                | 0.258 | 0.263 | 0.292 | 0.307 | 0.290 | 0.307 | 0.286 | 7.32  |
| 56)   | 2,4-Dinitrotol...  |                | 0.407 | 0.405 | 0.459 | 0.472 | 0.446 | 0.471 | 0.443 | 6.86  |
| 57)   | Fluorene           | 1.548          | 1.581 | 1.486 | 1.533 | 1.460 | 1.410 | 1.430 | 1.493 | 4.27  |
| 58)   | 2,3,4,6-Tetrac...  | 0.281          | 0.340 | 0.325 | 0.354 | 0.357 | 0.339 | 0.342 | 0.334 | 7.65  |
| 59)   | Diethylphthalate   | 1.473          | 1.630 | 1.525 | 1.656 | 1.643 | 1.556 | 1.605 | 1.584 | 4.31  |
| 60)   | 4-Chlorophenyl...  | 0.735          | 0.741 | 0.690 | 0.707 | 0.682 | 0.662 | 0.667 | 0.698 | 4.48  |
| 61)   | 4-Nitroaniline     |                | 0.349 | 0.353 | 0.397 | 0.398 | 0.376 | 0.402 | 0.379 | 6.25  |
| 62)   | Azobenzene         | 1.540          | 1.792 | 1.700 | 1.794 | 1.720 | 1.653 | 1.674 | 1.696 | 5.17  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.097 | 0.111 | 0.134 | 0.133 | 0.131 | 0.135 | 0.124 | 12.72 |
| 65) c | n-Nitrosodiphe...  | 0.604          | 0.671 | 0.688 | 0.726 | 0.674 | 0.679 | 0.657 | 0.671 | 5.47  |
| 66)   | 4-Bromophenyl-...  | 0.182          | 0.195 | 0.200 | 0.217 | 0.209 | 0.211 | 0.208 | 0.203 | 5.92  |
| 67)   | Hexachlorobenzene  | 0.224          | 0.227 | 0.231 | 0.246 | 0.240 | 0.240 | 0.238 | 0.235 | 3.47  |
| 68)   | Atrazine           | 0.154          | 0.196 | 0.192 | 0.208 | 0.197 | 0.176 | 0.151 | 0.182 | 12.24 |
| 69) C | Pentachlorophenol  |                | 0.132 | 0.143 | 0.163 | 0.162 | 0.156 | 0.156 | 0.152 | 7.92  |
| 70)   | Phenanthrene       | 1.198          | 1.189 | 1.154 | 1.185 | 1.139 | 1.124 | 1.118 | 1.158 | 2.81  |
| 71)   | Anthracene         | 1.073          | 1.154 | 1.147 | 1.168 | 1.141 | 1.128 | 1.130 | 1.134 | 2.69  |
| 72)   | Carbazole          | 0.979          | 1.104 | 1.083 | 1.083 | 1.080 | 1.050 | 1.083 | 1.066 | 3.90  |
| 73)   | Di-n-butylphth...  | 0.861          | 1.195 | 1.213 | 1.287 | 1.338 | 1.285 | 1.325 | 1.215 | 13.57 |
| 74) C | Fluoranthene       | 1.116          | 1.206 | 1.154 | 1.175 | 1.170 | 1.150 | 1.200 | 1.167 | 2.65  |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          |                | 0.508 | 0.515 | 0.552 | 0.537 | 0.595 |       | 0.542 | 6.40  |
| 77)   | Pyrene             | 1.379          | 1.445 | 1.428 | 1.558 | 1.529 | 1.405 | 1.342 | 1.441 | 5.41  |
| 78) S | Terphenyl-d14      | 0.926          | 0.961 | 0.913 | 0.984 | 0.968 | 0.889 | 0.851 | 0.928 | 5.11  |
| 79)   | Butylbenzylphth... |                | 0.501 | 0.544 | 0.637 | 0.678 | 0.641 | 0.640 | 0.607 | 11.29 |
| 80)   | Benzo(a)anthra...  | 1.227          | 1.282 | 1.263 | 1.271 | 1.278 | 1.258 | 1.243 | 1.260 | 1.56  |
| 81)   | 3,3'-Dichlorob...  |                | 0.337 | 0.395 | 0.411 | 0.412 | 0.418 | 0.408 | 0.397 | 7.62  |
| 82)   | Chrysene           | 1.243          | 1.244 | 1.220 | 1.219 | 1.218 | 1.214 | 1.185 | 1.220 | 1.63  |

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|       |                   |       |       |       |       |       |       |       |       |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.825 | 0.878 | 0.961 | 0.991 | 0.956 | 0.951 | 0.927 | 6.73  |
| 84) c | Di-n-octyl pht... | 1.037 | 1.210 | 1.361 | 1.406 | 1.451 | 1.494 | 1.326 | 12.98 |
| 85)   | Indeno(1,2,3-c... | 0.808 | 1.080 | 0.981 | 1.013 | 1.184 | 1.231 | 1.049 | 14.56 |

|       |                   |                |       |       |       |       |       |       |       |       |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.157          | 1.258 | 1.194 | 1.244 | 1.234 | 1.200 | 1.219 | 1.215 | 2.82  |
| 88)   | Benzo(k)fluora... | 1.136          | 1.240 | 1.202 | 1.260 | 1.252 | 1.211 | 1.172 | 1.210 | 3.70  |
| 89) C | Benzo(a)pyrene    | 0.929          | 1.083 | 1.109 | 1.174 | 1.157 | 1.153 | 1.158 | 1.109 | 7.70  |
| 90)   | Dibenzo(a,h)an... | 0.921          | 0.982 | 1.130 | 1.148 | 1.123 | 1.174 | 1.171 | 1.093 | 9.15  |
| 91)   | Benzo(g,h,i)pe... | 0.880          | 0.930 | 1.097 | 1.126 | 1.109 | 1.158 | 1.167 | 1.067 | 10.70 |

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(#) = Out of Range