

Method Path : Z:\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF020318.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Apr 13 16:01:47 2018  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BF102705.D 10 =BF102706.D 25 =BF102707.D 40 =BF102708.D 50 =BF102709.D 60 =BF102710.D 80 =BF102711.D

|       | Compound              | 2.5            | 10    | 25    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.634          | 0.636 | 0.676 | 0.668 | 0.658 | 0.657 | 0.623 | 0.650 | 3.00  |
| 3)    | Pyridine              | 1.608          | 1.768 | 1.891 | 1.867 | 1.793 | 1.849 | 1.804 | 1.797 | 5.22  |
| 4)    | n-Nitrosodimet...     | 0.695          | 0.728 | 0.780 | 0.793 | 0.792 | 0.804 | 0.790 | 0.769 | 5.35  |
| 5) S  | 2-Fluorophenol        | 1.363          | 1.404 | 1.373 | 1.316 | 1.282 | 1.287 | 1.193 | 1.317 | 5.41  |
| 6)    | Aniline               | 2.430          | 2.361 | 2.367 | 2.341 | 2.310 | 2.350 | 2.232 | 2.342 | 2.58  |
| 7) S  | Phenol-d6             | 1.709          | 1.696 | 1.657 | 1.579 | 1.523 | 1.524 | 1.412 | 1.586 | 6.84  |
| 8)    | 2-Chlorophenol        | 1.405          | 1.432 | 1.422 | 1.360 | 1.331 | 1.322 | 1.219 | 1.356 | 5.49  |
| 9)    | Benzaldehyde          | 1.230          | 1.271 | 1.221 | 1.183 | 1.153 | 1.142 | 1.043 | 1.178 | 6.33  |
| 10) C | Phenol                | 1.786          | 1.810 | 1.749 | 1.674 | 1.624 | 1.655 | 1.528 | 1.690 | 5.89  |
| 11)   | bis(2-Chloroet...     | 1.501          | 1.486 | 1.456 | 1.408 | 1.384 | 1.376 | 1.288 | 1.414 | 5.24  |
| 12)   | 1,3-Dichlorobe...     | 1.723          | 1.695 | 1.619 | 1.559 | 1.507 | 1.498 | 1.389 | 1.570 | 7.51  |
| 13) C | 1,4-Dichlorobe...     | 1.713          | 1.675 | 1.632 | 1.546 | 1.508 | 1.494 | 1.380 | 1.564 | 7.45  |
| 14)   | 1,2-Dichlorobe...     | 1.661          | 1.617 | 1.513 | 1.451 | 1.379 | 1.354 | 1.222 | 1.457 | 10.57 |
| 15)   | Benzyl Alcohol        | 1.209          | 1.261 | 1.284 | 1.248 | 1.215 | 1.216 | 1.100 | 1.219 | 4.88  |
| 16)   | 2,2'-oxybis(1-...     | 2.730          | 2.788 | 2.774 | 2.723 | 2.656 | 2.650 | 2.483 | 2.686 | 3.87  |
| 17)   | 2-Methylphenol        | 1.270          | 1.318 | 1.269 | 1.248 | 1.230 | 1.245 | 1.173 | 1.251 | 3.56  |
| 18)   | Hexachloroethane      | 0.528          | 0.537 | 0.550 | 0.552 | 0.541 | 0.543 | 0.503 | 0.536 | 3.10  |
| 19) P | n-Nitroso-di-n...     | 1.097          | 1.113 | 1.066 | 1.022 | 1.014 | 1.034 | 0.972 | 1.045 | 4.74  |
| 20)   | 3+4-Methylphenols     | 1.634          | 1.690 | 1.650 | 1.573 | 1.490 | 1.449 | 1.310 | 1.542 | 8.70  |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.575          | 0.546 | 0.513 | 0.475 | 0.457 | 0.450 | 0.410 | 0.489 | 11.84 |
| 23) S | Nitrobenzene-d5       | 0.236          | 0.289 | 0.301 | 0.305 | 0.311 | 0.289 | 0.288 |       | 9.46  |
| 24)   | Nitrobenzene          | 0.199          | 0.312 | 0.345 | 0.348 | 0.349 | 0.351 | 0.326 | 0.319 | 17.09 |
| 25)   | Isophorone            | 0.684          | 0.685 | 0.673 | 0.652 | 0.654 | 0.662 | 0.638 | 0.664 | 2.63  |
| 26) C | 2-Nitrophenol         | 0.059          | 0.100 | 0.123 | 0.139 | 0.153 | 0.151 | 0.121 |       | 29.87 |
| 27)   | 2,4-Dimethylph...     | 0.274          | 0.289 | 0.289 | 0.283 | 0.281 | 0.283 | 0.264 | 0.280 | 3.11  |
| 28)   | bis(2-Chloroet...     | 0.411          | 0.419 | 0.409 | 0.389 | 0.384 | 0.386 | 0.355 | 0.393 | 5.51  |
| 29) C | 2,4-Dichloroph...     | 0.219          | 0.262 | 0.269 | 0.262 | 0.262 | 0.264 | 0.246 | 0.255 | 6.77  |
| 30)   | 1,2,4-Trichlor...     | 0.311          | 0.313 | 0.298 | 0.283 | 0.282 | 0.279 | 0.253 | 0.288 | 7.29  |
| 31)   | Naphthalene           | 1.122          | 1.069 | 1.025 | 0.965 | 0.924 | 0.917 | 0.819 | 0.977 | 10.50 |
| 32)   | Benzoic acid          | 0.072          | 0.120 | 0.174 | 0.204 | 0.230 | 0.237 | 0.173 |       | 37.88 |
| 33)   | 4-Chloroaniline       | 0.452          | 0.454 | 0.440 | 0.418 | 0.411 | 0.403 | 0.368 | 0.421 | 7.31  |
| 34) C | Hexachlorobuta...     | 0.161          | 0.159 | 0.155 | 0.147 | 0.142 | 0.141 | 0.129 | 0.148 | 7.64  |
| 35)   | Caprolactam           | 0.067          | 0.087 | 0.094 | 0.091 | 0.096 | 0.096 | 0.090 | 0.089 | 11.43 |
| 36) C | 4-Chloro-3-met...     | 0.268          | 0.298 | 0.300 | 0.291 | 0.289 | 0.289 | 0.270 | 0.286 | 4.42  |
| 37)   | 2-Methylnaphth...     | 0.726          | 0.699 | 0.669 | 0.628 | 0.608 | 0.605 | 0.545 | 0.640 | 9.71  |

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|       |                    |                |       |       |       |       |       |       |       |       |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 38) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 39)   | 1,2,4,5-Tetrac...  | 0.623          | 0.599 | 0.580 | 0.537 | 0.517 | 0.510 | 0.446 | 0.545 | 11.14 |
| 40) P | Hexachlorocycl...  | 0.197          | 0.239 | 0.273 | 0.279 | 0.280 | 0.281 | 0.263 | 0.259 | 11.98 |
| 41) S | 2,4,6-Tribromo...  | 0.124          | 0.161 | 0.175 | 0.171 | 0.174 | 0.169 | 0.153 | 0.161 | 11.30 |
| 42) C | 2,4,6-Trichlor...  | 0.290          | 0.347 | 0.379 | 0.372 | 0.379 | 0.380 | 0.358 | 0.358 | 9.07  |
| 43)   | 2,4,5-Trichlor...  | 0.317          | 0.412 | 0.438 | 0.429 | 0.422 | 0.421 | 0.383 | 0.403 | 10.35 |
| 44) S | 2-Fluorobiphenyl   | 1.485          | 1.328 | 1.210 | 1.139 | 1.097 | 0.973 | 1.205 |       | 15.02 |
| 45)   | 1,1'-Biphenyl      | 1.986          | 1.891 | 1.762 | 1.645 | 1.594 | 1.547 | 1.367 | 1.685 | 12.57 |
| 46)   | 2-Chloronaphth...  | 1.490          | 1.452 | 1.391 | 1.310 | 1.273 | 1.254 | 1.113 | 1.326 | 9.76  |
| 47)   | 2-Nitroaniline     | 0.127          | 0.226 | 0.354 | 0.398 | 0.413 | 0.437 | 0.413 | 0.338 | 34.53 |
| 48)   | Acenaphthylene     | 2.324          | 2.279 | 2.168 | 2.021 | 1.971 | 1.928 | 1.728 | 2.060 | 10.24 |
| 49)   | Dimethylphthalate  | 1.693          | 1.657 | 1.627 | 1.523 | 1.526 | 1.505 | 1.386 | 1.559 | 6.79  |
| 50)   | 2,6-Dinitrotol...  |                | 0.214 | 0.298 | 0.310 | 0.326 | 0.328 | 0.304 | 0.297 | 14.19 |
| 51) C | Acenaphthene       | 1.414          | 1.354 | 1.282 | 1.202 | 1.176 | 1.154 | 1.041 | 1.232 | 10.31 |
| 52)   | 3-Nitroaniline     |                | 0.279 | 0.358 | 0.379 | 0.401 | 0.395 | 0.378 | 0.365 | 12.32 |
| 53) P | 2,4-Dinitrophenol  |                | 0.022 | 0.040 | 0.056 | 0.072 | 0.088 | 0.098 | 0.063 | 46.10 |
| 54)   | Dibenzofuran       | 2.031          | 1.921 | 1.814 | 1.695 | 1.657 | 1.614 | 1.420 | 1.736 | 11.75 |
| 55) P | 4-Nitrophenol      |                | 0.181 | 0.254 | 0.278 | 0.298 | 0.310 | 0.291 | 0.269 | 17.56 |
| 56)   | 2,4-Dinitrotol...  | 0.089          | 0.229 | 0.355 | 0.388 | 0.407 | 0.428 | 0.396 | 0.327 | 37.79 |
| 57)   | Fluorene           |                | 1.504 | 1.392 | 1.266 | 1.218 | 1.177 | 1.021 | 1.263 | 13.36 |
| 58)   | 2,3,4,6-Tetrac...  | 0.219          | 0.282 | 0.294 | 0.292 | 0.299 | 0.295 | 0.274 | 0.279 | 9.97  |
| 59)   | Diethylphthalate   | 1.704          | 1.641 | 1.597 | 1.518 | 1.511 | 1.483 | 1.325 | 1.540 | 8.00  |
| 60)   | 4-Chlorophenyl...  |                | 0.667 | 0.616 | 0.557 | 0.536 | 0.524 | 0.452 | 0.559 | 13.43 |
| 61)   | 4-Nitroaniline     |                | 0.265 | 0.342 | 0.354 | 0.376 | 0.383 | 0.365 | 0.347 | 12.39 |
| 62)   | Azobenzene         | 1.738          | 1.687 | 1.591 | 1.512 | 1.474 | 1.458 | 1.308 | 1.538 | 9.53  |
| 63) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |
| 64)   | 4,6-Dinitro-2-...  |                | 0.029 | 0.052 | 0.072 | 0.085 | 0.097 | 0.097 | 0.072 | 37.88 |
| 65) c | n-Nitrosodiphe...  | 0.788          | 0.779 | 0.730 | 0.700 | 0.678 | 0.661 | 0.602 | 0.705 | 9.39  |
| 66)   | 4-Bromophenyl-...  | 0.231          | 0.230 | 0.218 | 0.209 | 0.207 | 0.203 | 0.183 | 0.212 | 7.92  |
| 67)   | Hexachlorobenzene  | 0.260          | 0.249 | 0.238 | 0.230 | 0.230 | 0.223 | 0.205 | 0.233 | 7.65  |
| 68)   | Atrazine           | 0.207          | 0.217 | 0.218 | 0.211 | 0.210 | 0.205 | 0.189 | 0.208 | 4.64  |
| 69) C | Pentachlorophenol  |                | 0.109 | 0.138 | 0.143 | 0.147 | 0.147 | 0.138 | 0.137 | 10.54 |
| 70)   | Phenanthrene       | 1.317          | 1.261 | 1.158 | 1.090 | 1.051 | 1.013 | 0.906 | 1.114 | 12.83 |
| 71)   | Anthracene         | 1.318          | 1.278 | 1.194 | 1.102 | 1.077 | 1.028 | 0.933 | 1.133 | 12.16 |
| 72)   | Carbazole          | 1.299          | 1.231 | 1.148 | 1.084 | 1.067 | 1.030 | 0.910 | 1.110 | 11.70 |
| 73)   | Di-n-butylphth...  | 1.397          | 1.490 | 1.431 | 1.356 | 1.341 | 1.295 | 1.128 | 1.348 | 8.61  |
| 74) C | Fluoranthene       | 1.313          | 1.258 | 1.177 | 1.092 | 1.065 | 1.029 | 0.911 | 1.121 | 12.38 |
| 75) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 76)   | Benzidine          | 0.759          | 0.944 | 0.986 | 0.986 | 0.963 | 0.939 | 0.857 | 0.919 | 9.03  |
| 77)   | Pyrene             | 1.634          | 1.650 | 1.608 | 1.572 | 1.541 | 1.514 | 1.459 | 1.568 | 4.38  |
| 78) S | Terphenyl-d14      | 0.997          | 0.942 | 0.872 | 0.825 | 0.794 | 0.768 | 0.715 | 0.845 | 11.75 |
| 79)   | Butylbenzylphth... | 0.418          | 0.632 | 0.716 | 0.756 | 0.782 | 0.764 | 0.739 | 0.687 | 18.66 |
| 80)   | Benzo(a)anthra...  | 1.378          | 1.348 | 1.288 | 1.238 | 1.234 | 1.193 | 1.126 | 1.258 | 6.97  |
| 81)   | 3,3'-Dichlorob...  | 0.396          | 0.475 | 0.498 | 0.490 | 0.485 | 0.479 | 0.441 | 0.466 | 7.74  |
| 82)   | Chrysene           | 1.409          | 1.376 | 1.304 | 1.247 | 1.222 | 1.190 | 1.127 | 1.268 | 7.98  |

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|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)   | Bis(2-ethylhex... | 0.863          | 1.013 | 1.002 | 0.983 | 0.997 | 0.979 | 0.888 | 0.961 | 6.23  |
| 84) c | Di-n-octyl pht... | 1.056          | 1.383 | 1.487 | 1.494 | 1.586 | 1.598 | 1.494 | 1.443 | 12.80 |
| 85)   | Indeno(1,2,3-c... | 1.163          | 1.107 | 1.052 | 0.975 | 1.001 | 1.035 | 1.029 | 1.052 | 6.10  |
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 87)   | Benzo(b)fluora... | 1.244          | 1.373 | 1.283 | 1.326 | 1.243 | 1.293 | 1.315 | 1.297 | 3.57  |
| 88)   | Benzo(k)fluora... | 1.325          | 1.296 | 1.337 | 1.255 | 1.260 | 1.199 | 1.001 | 1.239 | 9.26  |
| 89) C | Benzo(a)pyrene    | 1.162          | 1.215 | 1.195 | 1.180 | 1.152 | 1.171 | 1.094 | 1.167 | 3.29  |
| 90)   | Dibenzo(a,h)an... | 0.987          | 0.989 | 0.956 | 0.939 | 0.932 | 0.930 | 0.899 | 0.947 | 3.42  |
| 91)   | Benzo(g,h,i)pe... | 0.962          | 0.951 | 0.926 | 0.908 | 0.907 | 0.906 | 0.930 | 0.927 | 2.42  |

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(#) = Out of Range