

Method Path : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF102921.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Oct 29 18:20:18 2021  
 Response Via : Initial Calibration

## Calibration Files

5 =BF126002.D 10 =BF126003.D 20 =BF126004.D 40 =BF126005.D 50 =BF126006.D 60 =BF126007.D 80 =BF126008.D

| Compound                   | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.771          | 0.698 | 0.664 | 0.615 | 0.574 | 0.575 | 0.529 | 0.632 | 13.26 |
| 3) Pyridine                | 2.106          | 1.843 | 1.806 | 1.687 | 1.581 | 1.609 | 1.498 | 1.733 | 11.82 |
| 4) n-Nitrosodimet...       | 1.060          | 0.939 | 0.897 | 0.858 | 0.821 | 0.823 | 0.775 | 0.882 | 10.81 |
| 5) S 2-Fluorophenol        | 1.815          | 1.619 | 1.439 | 1.260 | 1.176 | 1.149 |       | 1.410 | 18.87 |
| 6) Aniline                 | 2.844          | 2.526 | 2.333 | 2.218 | 2.045 | 1.993 | 1.806 | 2.252 | 15.61 |
| 7) S Phenol-d6             | 2.425          | 2.133 | 1.928 | 1.744 | 1.617 | 1.575 | 1.407 | 1.833 | 19.31 |
| 8) 2-Chlorophenol          | 1.820          | 1.619 | 1.487 | 1.321 | 1.215 | 1.168 | 1.040 | 1.381 | 19.90 |
| 9) Benzaldehyde            | 1.585          | 1.410 | 1.224 | 1.004 | 0.895 | 0.856 | 0.726 | 1.100 | 28.67 |
| 10) C Phenol               | 2.561          | 2.303 | 2.097 | 1.864 | 1.713 | 1.629 |       | 2.028 | 17.78 |
| 11) bis(2-Chloroet...      | 1.849          | 1.708 | 1.548 | 1.439 | 1.335 | 1.290 | 1.173 | 1.477 | 16.26 |
| 12) 1,3-Dichlorobe...      | 1.964          | 1.752 | 1.572 | 1.414 | 1.311 | 1.268 | 1.154 | 1.491 | 19.37 |
| 13) C 1,4-Dichlorobe...    | 1.941          | 1.742 | 1.584 | 1.432 | 1.319 | 1.269 | 1.138 | 1.489 | 19.00 |
| 14) 1,2-Dichlorobe...      | 1.905          | 1.662 | 1.499 | 1.318 | 1.206 | 1.139 |       | 1.455 | 20.10 |
| 15) Benzyl Alcohol         | 1.691          | 1.573 | 1.460 | 1.352 | 1.255 | 1.200 | 1.069 | 1.372 | 15.90 |
| 16) 2,2'-oxybis(1-...      | 3.487          | 3.247 | 3.000 | 2.840 | 2.637 | 2.551 | 2.319 | 2.869 | 14.24 |
| 17) 2-Methylphenol         | 1.518          | 1.391 | 1.276 | 1.179 | 1.113 | 1.065 | 0.983 | 1.218 | 15.53 |
| 18) Hexachloroethane       | 0.702          | 0.635 | 0.579 | 0.545 | 0.518 | 0.491 | 0.449 | 0.560 | 15.52 |
| 19) P n-Nitroso-di-n...    | 1.410          | 1.242 | 1.128 | 1.032 | 0.969 | 0.933 | 0.877 | 1.085 | 17.45 |
| 20) 3+4-Methylphenols      | 2.028          | 1.816 | 1.608 | 1.384 | 1.246 |       |       | 1.616 | 19.58 |
|                            |                |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.673          | 0.587 | 0.532 | 0.470 | 0.438 | 0.438 | 0.395 | 0.505 | 19.47 |
| 23) S Nitrobenzene-d5      | 0.477          | 0.449 | 0.419 | 0.398 | 0.380 | 0.381 | 0.353 | 0.408 | 10.60 |
| 24) Nitrobenzene           | 0.468          | 0.437 | 0.423 | 0.396 | 0.383 | 0.380 | 0.345 | 0.404 | 10.15 |
| 25) Isophorone             | 0.883          | 0.817 | 0.755 | 0.721 | 0.691 | 0.701 | 0.663 | 0.747 | 10.43 |
| 26) C 2-Nitrophenol        | 0.164          | 0.175 | 0.176 | 0.171 | 0.167 | 0.167 | 0.157 | 0.168 | 3.98  |
| 27) 2,4-Dimethylph...      | 0.340          | 0.318 | 0.294 | 0.277 | 0.262 | 0.266 | 0.243 | 0.286 | 11.91 |
| 28) bis(2-Chloroet...      | 0.595          | 0.535 | 0.492 | 0.459 | 0.432 | 0.429 | 0.400 | 0.477 | 14.35 |
| 29) C 2,4-Dichloroph...    | 0.342          | 0.316 | 0.300 | 0.277 | 0.263 | 0.262 | 0.242 | 0.286 | 12.24 |
| 30) 1,2,4-Trichlor...      | 0.413          | 0.377 | 0.342 | 0.309 | 0.293 | 0.293 | 0.266 | 0.328 | 15.97 |
| 31) Naphthalene            | 1.295          | 1.155 | 1.048 | 0.953 | 0.874 | 0.880 | 0.766 | 0.996 | 18.32 |
| 32) Benzoic acid           | 0.141          | 0.165 | 0.199 | 0.235 | 0.235 | 0.243 | 0.243 | 0.209 | 19.80 |
| 33) 4-Chloroaniline        | 0.538          | 0.488 | 0.453 | 0.407 | 0.392 | 0.388 | 0.355 | 0.432 | 14.89 |
| 34) C Hexachlorobuta...    | 0.241          | 0.224 | 0.204 | 0.194 | 0.181 | 0.180 | 0.162 | 0.198 | 13.86 |
| 35) Caprolactam            | 0.115          | 0.112 | 0.100 | 0.097 | 0.092 | 0.095 | 0.089 | 0.100 | 10.09 |
| 36) C 4-Chloro-3-met...    | 0.402          | 0.379 | 0.353 | 0.325 | 0.309 | 0.307 | 0.287 | 0.337 | 12.42 |
| 37) 2-Methylnaphth...      | 0.831          | 0.774 | 0.693 | 0.618 | 0.582 | 0.576 | 0.509 | 0.655 | 17.71 |
| 38) 1-Methylnaphth...      | 0.830          | 0.751 | 0.682 | 0.597 | 0.559 | 0.556 | 0.492 | 0.638 | 18.93 |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
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| Method File : 8270-BF102921.M                   |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.717          | 0.643 | 0.589 | 0.532 | 0.479 | 0.479 | 0.432 | 0.553 | 18.40 |
| 41) P                                           | Hexachlorocycl... | 0.305          | 0.303 | 0.297 | 0.299 | 0.275 | 0.268 | 0.263 | 0.287 | 6.21  |
| 42) S                                           | 2,4,6-Tribromo... | 0.231          | 0.220 | 0.196 | 0.188 | 0.175 | 0.174 | 0.163 | 0.192 | 13.18 |
| 43) C                                           | 2,4,6-Trichlor... | 0.473          | 0.433 | 0.411 | 0.379 | 0.348 | 0.348 | 0.322 | 0.388 | 13.94 |
| 44)                                             | 2,4,5-Trichlor... | 0.478          | 0.458 | 0.428 | 0.398 | 0.367 | 0.369 | 0.342 | 0.406 | 12.49 |
| 45) S                                           | 2-Fluorobiphenyl  | 1.450          | 1.256 | 1.063 | 0.954 | 0.946 |       | 1.134 |       | 19.06 |
| 46)                                             | 1,1'-Biphenyl     | 1.916          | 1.729 | 1.555 | 1.376 | 1.236 | 1.226 | 1.506 |       | 18.50 |
| 47)                                             | 2-Chloronaphth... | 1.403          | 1.275 | 1.149 | 1.041 | 0.940 | 0.942 | 0.855 | 1.087 | 18.31 |
| 48)                                             | 2-Nitroaniline    | 0.472          | 0.482 | 0.456 | 0.453 | 0.414 | 0.434 | 0.407 | 0.445 | 6.35  |
| 49)                                             | Acenaphthylene    | 2.147          | 1.950 | 1.766 | 1.595 | 1.433 | 1.399 | 1.240 | 1.647 | 19.69 |
| 50)                                             | Dimethylphthalate | 1.588          | 1.474 | 1.287 | 1.188 | 1.093 | 1.086 | 1.006 | 1.246 | 17.36 |
| 51)                                             | 2,6-Dinitrotol... | 0.287          | 0.306 | 0.282 | 0.275 | 0.260 | 0.257 | 0.240 | 0.272 | 8.06  |
| 52) C                                           | Acenaphthene      | 1.442          | 1.290 | 1.164 | 1.058 | 0.957 | 0.976 | 0.884 | 1.110 | 18.05 |
| 53)                                             | 3-Nitroaniline    | 0.368          | 0.358 | 0.329 | 0.313 | 0.292 | 0.296 | 0.272 | 0.318 | 11.08 |
| 54) P                                           | 2,4-Dinitrophenol | 0.085          | 0.098 | 0.116 | 0.130 | 0.134 | 0.140 | 0.138 | 0.120 | 17.89 |
| 55)                                             | Dibenzofuran      | 2.140          | 1.925 | 1.703 | 1.526 | 1.375 | 1.365 | 1.672 |       | 18.68 |
| 56) P                                           | 4-Nitrophenol     | 0.275          | 0.282 | 0.257 | 0.253 | 0.234 | 0.243 | 0.215 | 0.251 | 9.24  |
| 57)                                             | 2,4-Dinitrotol... | 0.370          | 0.400 | 0.368 | 0.362 | 0.336 | 0.338 | 0.309 | 0.355 | 8.32  |
| 58)                                             | Fluorene          | 1.640          | 1.443 | 1.226 | 1.077 | 0.961 | 0.957 | 1.217 |       | 22.72 |
| 59)                                             | 2,3,4,6-Tetrac... | 0.408          | 0.394 | 0.365 | 0.339 | 0.307 | 0.311 | 0.283 | 0.344 | 13.71 |
| 60)                                             | Diethylphthalate  | 1.602          | 1.489 | 1.318 | 1.209 | 1.107 | 1.083 | 0.998 | 1.258 | 17.73 |
| 61)                                             | 4-Chlorophenyl... | 0.784          | 0.715 | 0.613 | 0.538 | 0.479 | 0.464 | 0.418 | 0.573 | 23.90 |
| 62)                                             | 4-Nitroaniline    | 0.339          | 0.333 | 0.307 | 0.300 | 0.278 | 0.287 | 0.272 | 0.302 | 8.66  |
| 63)                                             | Azobenzene        | 1.849          | 1.708 | 1.530 | 1.396 | 1.276 | 1.273 | 1.155 | 1.455 | 17.36 |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... | 0.085          | 0.097 | 0.111 | 0.120 | 0.115 | 0.116 | 0.113 | 0.108 | 11.51 |
| 66) c                                           | n-Nitrosodiphe... | 0.775          | 0.691 | 0.639 | 0.578 | 0.535 | 0.521 | 0.480 | 0.603 | 17.39 |
| 67)                                             | 4-Bromophenyl-... | 0.271          | 0.249 | 0.230 | 0.209 | 0.202 | 0.191 | 0.177 | 0.218 | 15.12 |
| 68)                                             | Hexachlorobenzene | 0.278          | 0.261 | 0.239 | 0.225 | 0.212 | 0.203 | 0.193 | 0.230 | 13.52 |
| 69)                                             | Atrazine          | 0.246          | 0.224 | 0.207 | 0.196 | 0.175 | 0.170 | 0.158 | 0.196 | 16.06 |
| 70) C                                           | Pentachlorophenol | 0.130          | 0.135 | 0.138 | 0.136 | 0.131 | 0.129 | 0.121 | 0.131 | 4.33  |
| 71)                                             | Phenanthrene      | 1.353          | 1.193 | 1.091 | 0.964 | 0.880 | 0.860 | 1.057 |       | 18.25 |
| 72)                                             | Anthracene        | 1.330          | 1.208 | 1.100 | 0.982 | 0.888 | 0.862 | 0.773 | 1.020 | 19.72 |
| 73)                                             | Carbazole         | 1.293          | 1.173 | 1.067 | 0.937 | 0.858 | 0.831 | 0.763 | 0.989 | 19.71 |
| 74)                                             | Di-n-butylphth... | 1.385          | 1.282 | 1.157 | 1.053 | 0.966 | 0.898 | 0.813 | 1.079 | 19.22 |
| 75) C                                           | Fluoranthene      | 1.417          | 1.259 | 1.148 | 1.024 | 0.916 | 0.883 | 1.108 |       | 18.69 |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.981          | 0.800 | 0.654 | 0.627 | 0.716 |       | 0.756 |       | 18.89 |
| 78)                                             | Pyrene            | 1.916          | 1.735 | 1.620 | 1.536 | 1.506 | 1.549 | 1.505 | 1.624 | 9.37  |
| 79) S                                           | Terphenyl-d14     | 1.340          | 1.216 | 1.073 | 0.989 | 0.970 | 0.986 | 0.920 | 1.071 | 14.31 |
| 80)                                             | Butylbenzylpht... | 0.730          | 0.697 | 0.657 | 0.658 | 0.638 | 0.630 | 0.618 | 0.661 | 5.98  |
| 81)                                             | Benzo(a)anthra... | 1.627          | 1.454 | 1.307 | 1.225 | 1.137 | 1.145 | 1.064 | 1.280 | 15.61 |
| 82)                                             | 3,3'-Dichlorob... | 0.604          | 0.534 | 0.490 | 0.453 | 0.416 | 0.404 | 0.372 | 0.467 | 17.34 |
| 83)                                             | Chrysene          | 1.664          | 1.481 | 1.369 | 1.260 | 1.196 | 1.171 | 1.125 | 1.324 | 14.65 |
| 84)                                             | Bis(2-ethylhex... | 0.930          | 0.868 | 0.785 | 0.754 | 0.714 | 0.681 | 0.664 | 0.771 | 12.75 |
| 85) c                                           | Di-n-octyl pht... | 1.594          | 1.550 | 1.406 | 1.368 | 1.242 | 1.141 | 1.130 | 1.348 | 13.77 |

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|     |   |                   |                |       |       |       |       |       |       |       |       |
|-----|---|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
|     | I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 86) |   | Indeno(1,2,3-c... | 1.331          | 1.189 | 1.171 | 1.182 | 1.196 | 1.282 | 1.226 | 1.225 | 4.87  |
| 88) |   | Benzo(b)fluora... | 1.654          | 1.447 | 1.339 | 1.347 | 1.221 | 1.183 | 1.157 | 1.335 | 13.06 |
| 89) |   | Benzo(k)fluora... | 1.534          | 1.471 | 1.381 | 1.293 | 1.199 | 1.185 | 1.025 | 1.298 | 13.69 |
| 90) | C | Benzo(a)pyrene    | 1.277          | 1.179 | 1.084 | 1.065 | 0.988 | 1.006 | 0.940 | 1.077 | 10.87 |
| 91) |   | Dibenzo(a,h)an... | 1.086          | 0.993 | 0.960 | 0.981 | 0.967 | 1.031 | 0.974 | 0.999 | 4.52  |
| 92) |   | Benzo(g,h,i)pe... | 1.037          | 0.919 | 0.950 | 0.967 | 1.004 | 1.088 | 1.040 | 1.001 | 5.90  |

(#) = Out of Range