

Method Path : Z:\svoasrv\HPCHEM1\BNA\_P\Methods\  
 Method File : 8270E-BP060821.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Jun 09 11:54:55 2021  
 Response Via : Initial Calibration

## Calibration Files

5 =BP005779.D 10 =BP005780.D 20 =BP005781.D 40 =BP005782.D 50 =BP005783.D 60 =BP005784.D 80 =BP005785.D

| Compound                   | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.621          | 0.578 | 0.589 | 0.534 | 0.546 | 0.532 | 0.542 | 0.563 | 5.96  |
| 3) Pyridine                | 1.156          | 1.255 | 1.390 | 1.324 | 1.380 | 1.346 | 1.412 | 1.323 | 6.81  |
| 4) n-Nitrosodimet...       | 0.622          | 0.618 | 0.643 | 0.584 | 0.618 | 0.599 | 0.622 | 0.615 | 3.05  |
| 5) S 2-Fluorophenol        | 1.298          | 1.262 | 1.300 | 1.191 | 1.229 | 1.209 | 1.236 | 1.246 | 3.37  |
| 6) Aniline                 | 1.868          | 1.779 | 1.887 | 1.717 | 1.811 | 1.747 | 1.815 | 1.804 | 3.40  |
| 7) S Phenol-d6             | 1.659          | 1.609 | 1.698 | 1.554 | 1.618 | 1.557 | 1.614 | 1.616 | 3.18  |
| 8) 2-Chlorophenol          | 1.452          | 1.440 | 1.509 | 1.345 | 1.438 | 1.383 | 1.436 | 1.429 | 3.65  |
| 9) Benzaldehyde            | 0.746          | 0.723 | 0.736 | 0.721 | 0.665 | 0.627 | 0.603 | 0.689 | 8.28  |
| 10) C Phenol               | 1.647          | 1.650 | 1.693 | 1.523 | 1.600 | 1.569 | 1.614 | 1.614 | 3.50  |
| 11) bis(2-Chloroet...      | 1.258          | 1.235 | 1.309 | 1.150 | 1.201 | 1.185 | 1.224 | 1.223 | 4.23  |
| 12) 1,3-Dichlorobe...      | 1.676          | 1.619 | 1.680 | 1.502 | 1.584 | 1.540 | 1.585 | 1.598 | 4.14  |
| 13) C 1,4-Dichlorobe...    | 1.742          | 1.639 | 1.702 | 1.523 | 1.606 | 1.572 | 1.623 | 1.630 | 4.56  |
| 14) 1,2-Dichlorobe...      | 1.625          | 1.595 | 1.626 | 1.468 | 1.541 | 1.507 | 1.543 | 1.558 | 3.87  |
| 15) Benzyl Alcohol         | 1.192          | 1.200 | 1.254 | 1.177 | 1.233 | 1.193 | 1.269 | 1.217 | 2.90  |
| 16) 2,2'-oxybis(1-...      | 1.169          | 1.127 | 1.182 | 1.076 | 1.121 | 1.101 | 1.138 | 1.130 | 3.26  |
| 17) 2-Methylphenol         | 1.114          | 1.104 | 1.144 | 1.049 | 1.097 | 1.069 | 1.119 | 1.100 | 2.91  |
| 18) Hexachloroethane       | 0.601          | 0.587 | 0.614 | 0.562 | 0.590 | 0.580 | 0.592 | 0.589 | 2.79  |
| 19) P n-Nitroso-di-n...    | 0.991          | 1.003 | 1.062 | 0.949 | 1.003 | 0.956 | 0.991 | 0.994 | 3.74  |
| 20) 3+4-Methylphenols      | 1.490          | 1.484 | 1.566 | 1.424 | 1.496 | 1.437 | 1.499 | 1.485 | 3.11  |
|                            |                |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.524          | 0.512 | 0.534 | 0.502 | 0.529 | 0.524 | 0.560 | 0.526 | 3.45  |
| 23) S Nitrobenzene-d5      | 0.391          | 0.393 | 0.409 | 0.389 | 0.418 | 0.411 | 0.445 | 0.408 | 4.85  |
| 24) Nitrobenzene           | 0.395          | 0.416 | 0.430 | 0.393 | 0.437 | 0.433 | 0.462 | 0.424 | 5.74  |
| 25) Isophorone             | 0.724          | 0.729 | 0.768 | 0.705 | 0.775 | 0.756 | 0.817 | 0.753 | 4.99  |
| 26) C 2-Nitrophenol        | 0.181          | 0.185 | 0.200 | 0.190 | 0.216 | 0.212 | 0.232 | 0.202 | 9.21  |
| 27) 2,4-Dimethylph...      | 0.292          | 0.290 | 0.307 | 0.279 | 0.310 | 0.304 | 0.326 | 0.301 | 5.09  |
| 28) bis(2-Chloroet...      | 0.394          | 0.392 | 0.403 | 0.360 | 0.398 | 0.385 | 0.420 | 0.393 | 4.68  |
| 29) C 2,4-Dichloroph...    | 0.351          | 0.351 | 0.361 | 0.334 | 0.369 | 0.369 | 0.398 | 0.362 | 5.59  |
| 30) 1,2,4-Trichlor...      | 0.412          | 0.407 | 0.410 | 0.369 | 0.411 | 0.404 | 0.434 | 0.407 | 4.70  |
| 31) Naphthalene            | 1.174          | 1.138 | 1.179 | 1.056 | 1.171 | 1.149 | 1.233 | 1.157 | 4.66  |
| 32) Benzoic acid           |                | 0.128 | 0.162 | 0.210 | 0.234 | 0.232 |       | 0.193 | 24.27 |
| 33) 4-Chloroaniline        | 0.458          | 0.455 | 0.477 | 0.431 | 0.479 | 0.465 | 0.507 | 0.467 | 5.07  |
| 34) C Hexachlorobuta...    | 0.280          | 0.272 | 0.278 | 0.249 | 0.275 | 0.275 | 0.295 | 0.275 | 4.95  |
| 35) Caprolactam            | 0.094          | 0.098 | 0.107 | 0.103 | 0.107 | 0.106 | 0.115 | 0.104 | 6.73  |
| 36) C 4-Chloro-3-met...    | 0.349          | 0.363 | 0.380 | 0.339 | 0.377 | 0.367 | 0.397 | 0.367 | 5.29  |
| 37) 2-Methylnaphth...      | 0.827          | 0.818 | 0.853 | 0.749 | 0.831 | 0.814 | 0.876 | 0.824 | 4.82  |
| 38) 1-Methylnaphth...      | 0.775          | 0.777 | 0.798 | 0.714 | 0.786 | 0.767 | 0.815 | 0.776 | 4.07  |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\svoasrv\HPCHEM1\BNA_P\Methods\ |                   |                |       |       |       |       |       |       |       |       |
| Method File : 8270E-BP060821.M                  |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.692          | 0.682 | 0.711 | 0.665 | 0.715 | 0.713 | 0.749 | 0.704 | 3.86  |
| 41) P                                           | Hexachlorocycl... |                | 0.216 | 0.274 | 0.295 | 0.346 | 0.353 |       | 0.297 | 18.89 |
| 42) S                                           | 2,4,6-Tribromo... | 0.322          | 0.335 | 0.357 | 0.326 | 0.351 | 0.346 | 0.365 | 0.343 | 4.70  |
| 43) C                                           | 2,4,6-Trichlor... | 0.443          | 0.458 | 0.493 | 0.454 | 0.499 | 0.497 | 0.535 | 0.483 | 6.73  |
| 44)                                             | 2,4,5-Trichlor... | 0.482          | 0.492 | 0.522 | 0.491 | 0.540 | 0.535 | 0.577 | 0.520 | 6.56  |
| 45) S                                           | 2-Fluorobiphenyl  | 1.546          | 1.525 | 1.563 | 1.424 | 1.534 | 1.512 | 1.558 | 1.523 | 3.10  |
| 46)                                             | 1,1'-Biphenyl     | 1.576          | 1.569 | 1.647 | 1.534 | 1.635 | 1.617 | 1.710 | 1.613 | 3.64  |
| 47)                                             | 2-Chloronaphth... | 1.298          | 1.295 | 1.341 | 1.199 | 1.353 | 1.327 | 1.405 | 1.317 | 4.85  |
| 48)                                             | 2-Nitroaniline    | 0.299          | 0.317 | 0.346 | 0.326 | 0.369 | 0.365 | 0.401 | 0.346 | 10.10 |
| 49)                                             | Acenaphthylene    | 1.959          | 1.970 | 2.071 | 1.876 | 2.070 | 2.037 | 2.159 | 2.020 | 4.59  |
| 50)                                             | Dimethylphthalate | 1.644          | 1.637 | 1.695 | 1.498 | 1.654 | 1.637 | 1.746 | 1.644 | 4.61  |
| 51)                                             | 2,6-Dinitrotol... | 0.356          | 0.361 | 0.378 | 0.348 | 0.384 | 0.378 | 0.411 | 0.374 | 5.70  |
| 52) C                                           | Acenaphthene      | 1.246          | 1.210 | 1.258 | 1.117 | 1.242 | 1.220 | 1.294 | 1.227 | 4.51  |
| 53)                                             | 3-Nitroaniline    | 0.332          | 0.345 | 0.362 | 0.340 | 0.378 | 0.375 | 0.403 | 0.362 | 6.95  |
| 54) P                                           | 2,4-Dinitrophenol |                | 0.145 | 0.174 | 0.195 | 0.219 | 0.219 |       | 0.191 | 16.57 |
| 55)                                             | Dibenzofuran      | 2.039          | 2.044 | 2.099 | 1.839 | 2.007 | 1.999 | 2.095 | 2.018 | 4.34  |
| 56) P                                           | 4-Nitrophenol     | 0.252          | 0.268 | 0.292 | 0.283 | 0.312 | 0.309 | 0.340 | 0.294 | 10.05 |
| 57)                                             | 2,4-Dinitrotol... | 0.447          | 0.477 | 0.510 | 0.476 | 0.522 | 0.514 | 0.553 | 0.500 | 7.05  |
| 58)                                             | Fluorene          | 1.617          | 1.589 | 1.637 | 1.439 | 1.572 | 1.553 | 1.597 | 1.572 | 4.13  |
| 59)                                             | 2,3,4,6-Tetrac... | 0.440          | 0.442 | 0.477 | 0.429 | 0.467 | 0.461 | 0.493 | 0.458 | 4.91  |
| 60)                                             | Diethylphthalate  | 1.637          | 1.612 | 1.705 | 1.521 | 1.675 | 1.656 | 1.743 | 1.650 | 4.33  |
| 61)                                             | 4-Chlorophenyl... | 0.847          | 0.837 | 0.858 | 0.744 | 0.804 | 0.796 | 0.819 | 0.815 | 4.73  |
| 62)                                             | 4-Nitroaniline    | 0.338          | 0.361 | 0.372 | 0.349 | 0.390 | 0.390 | 0.410 | 0.373 | 6.80  |
| 63)                                             | Azobenzene        | 1.451          | 1.460 | 1.541 | 1.391 | 1.515 | 1.497 | 1.593 | 1.493 | 4.43  |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... |                | 0.116 | 0.140 | 0.138 | 0.159 | 0.158 | 0.170 | 0.147 | 13.22 |
| 66) c                                           | n-Nitrosodiphe... | 0.661          | 0.657 | 0.682 | 0.603 | 0.680 | 0.666 | 0.694 | 0.663 | 4.46  |
| 67)                                             | 4-Bromophenyl-... | 0.254          | 0.249 | 0.266 | 0.235 | 0.264 | 0.259 | 0.270 | 0.257 | 4.64  |
| 68)                                             | Hexachlorobenzene | 0.311          | 0.309 | 0.315 | 0.279 | 0.315 | 0.306 | 0.319 | 0.308 | 4.39  |
| 69)                                             | Atrazine          | 0.202          | 0.205 | 0.212 | 0.221 | 0.206 | 0.198 | 0.200 | 0.206 | 3.72  |
| 70) C                                           | Pentachlorophenol | 0.128          | 0.147 | 0.172 | 0.171 | 0.192 | 0.187 | 0.200 | 0.171 | 14.92 |
| 71)                                             | Phenanthrene      | 1.224          | 1.200 | 1.240 | 1.096 | 1.220 | 1.188 | 1.238 | 1.201 | 4.16  |
| 72)                                             | Anthracene        | 1.159          | 1.177 | 1.232 | 1.086 | 1.210 | 1.186 | 1.225 | 1.182 | 4.22  |
| 73)                                             | Carbazole         | 1.125          | 1.129 | 1.177 | 1.043 | 1.161 | 1.137 | 1.172 | 1.135 | 3.99  |
| 74)                                             | Di-n-butylphth... | 1.270          | 1.267 | 1.356 | 1.215 | 1.358 | 1.347 | 1.391 | 1.315 | 4.87  |
| 75) C                                           | Fluoranthene      | 1.487          | 1.473 | 1.529 | 1.324 | 1.470 | 1.455 | 1.471 | 1.459 | 4.37  |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.358          | 0.370 | 0.396 | 0.475 | 0.438 | 0.445 | 0.430 | 0.416 | 10.21 |
| 78)                                             | Pyrene            | 1.350          | 1.353 | 1.416 | 1.277 | 1.446 | 1.411 | 1.520 | 1.396 | 5.60  |
| 79) S                                           | Terphenyl-d14     | 1.115          | 1.092 | 1.107 | 0.989 | 1.059 | 1.029 | 1.085 | 1.068 | 4.25  |
| 80)                                             | Butylbenzylpht... | 0.520          | 0.527 | 0.578 | 0.536 | 0.608 | 0.601 | 0.651 | 0.574 | 8.48  |
| 81)                                             | Benzo(a)anthra... | 1.458          | 1.458 | 1.468 | 1.314 | 1.453 | 1.437 | 1.518 | 1.444 | 4.32  |
| 82)                                             | 3,3'-Dichlorob... | 0.508          | 0.512 | 0.524 | 0.448 | 0.510 | 0.495 | 0.496 | 0.499 | 4.94  |
| 83)                                             | Chrysene          | 1.415          | 1.411 | 1.424 | 1.270 | 1.422 | 1.387 | 1.459 | 1.398 | 4.33  |
| 84)                                             | Bis(2-ethylhex... | 0.796          | 0.808 | 0.855 | 0.779 | 0.876 | 0.872 | 0.911 | 0.842 | 5.78  |
| 85) c                                           | Di-n-octyl pht... | 1.377          | 1.417 | 1.519 | 1.394 | 1.582 | 1.571 | 1.690 | 1.507 | 7.71  |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_P\Methods\  
Method File : 8270E-BP060821.M

| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |  |      |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|------|
| 87)   | Indeno(1,2,3-c... | 1.713 | 1.719 | 1.728 | 1.555 | 1.739 | 1.710 | 1.809 | 1.710 |  | 4.48 |
| 88)   | Benzo(b)fluora... | 1.354 | 1.358 | 1.372 | 1.258 | 1.381 | 1.414 | 1.451 | 1.370 |  | 4.36 |
| 89)   | Benzo(k)fluora... | 1.356 | 1.330 | 1.379 | 1.214 | 1.340 | 1.294 | 1.384 | 1.328 |  | 4.44 |
| 90) C | Benzo(a)pyrene    | 1.299 | 1.275 | 1.302 | 1.177 | 1.304 | 1.294 | 1.364 | 1.288 |  | 4.35 |
| 91)   | Dibenzo(a,h)an... | 1.476 | 1.475 | 1.503 | 1.343 | 1.491 | 1.472 | 1.545 | 1.472 |  | 4.24 |
| 92)   | Benzo(g,h,i)pe... | 1.456 | 1.441 | 1.467 | 1.318 | 1.479 | 1.463 | 1.555 | 1.454 |  | 4.84 |

(#) = Out of Range