

Method Path : Z:\SVOASRV\HPCHEM1\BNA\_G\METHODS\  
 Method File : 8270-BG063021.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Jun 30 15:39:12 2021  
 Response Via : Initial Calibration

## Calibration Files

5 =BG049136.D 10 =BG049137.D 20 =BG049138.D 40 =BG049139.D 50 =BG049140.D 60 =BG049141.D 80 =BG049142.D

| Compound                   | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.595          | 0.565 | 0.589 | 0.535 | 0.522 | 0.547 | 0.571 | 0.561 | 4.84  |
| 3) Pyridine                | 1.419          | 1.380 | 1.668 | 1.483 | 1.503 | 1.518 | 1.640 | 1.516 | 7.01  |
| 4) n-Nitrosodimet...       | 0.825          | 0.791 | 0.909 | 0.839 | 0.843 | 0.878 | 0.941 | 0.861 | 6.00  |
| 5) S 2-Fluorophenol        | 1.339          | 1.188 | 1.359 | 1.238 | 1.235 | 1.269 | 1.310 | 1.277 | 4.84  |
| 6) Aniline                 | 2.332          | 2.199 | 2.323 | 2.061 | 2.160 | 2.200 | 2.240 | 2.216 | 4.25  |
| 7) S Phenol-d6             | 1.845          | 1.736 | 1.936 | 1.756 | 1.768 | 1.817 | 1.886 | 1.821 | 4.04  |
| 8) 2-Chlorophenol          | 1.530          | 1.318 | 1.462 | 1.317 | 1.340 | 1.397 | 1.444 | 1.401 | 5.82  |
| 9) Benzaldehyde            | 1.002          | 1.029 | 1.024 | 1.012 | 0.871 | 0.901 | 0.866 | 0.958 | 7.82  |
| 10) C Phenol               | 1.793          | 1.759 | 1.934 | 1.769 | 1.779 | 1.867 | 1.901 | 1.829 | 3.86  |
| 11) bis(2-Chloroet...      | 1.381          | 1.293 | 1.393 | 1.287 | 1.285 | 1.345 | 1.353 | 1.334 | 3.42  |
| 12) 1,3-Dichlorobe...      | 1.723          | 1.488 | 1.680 | 1.460 | 1.491 | 1.536 | 1.591 | 1.567 | 6.49  |
| 13) C 1,4-Dichlorobe...    | 1.720          | 1.495 | 1.679 | 1.486 | 1.506 | 1.555 | 1.589 | 1.576 | 5.88  |
| 14) 1,2-Dichlorobe...      | 1.586          | 1.544 | 1.643 | 1.421 | 1.444 | 1.471 | 1.510 | 1.517 | 5.25  |
| 15) Benzyl Alcohol         | 1.522          | 1.535 | 1.679 | 1.560 | 1.581 | 1.637 | 1.707 | 1.603 | 4.49  |
| 16) 2,2'-oxybis(1-...      | 2.486          | 2.250 | 2.455 | 2.148 | 2.106 | 2.167 | 2.239 | 2.264 | 6.61  |
| 17) 2-Methylphenol         | 1.288          | 1.184 | 1.308 | 1.181 | 1.188 | 1.209 | 1.268 | 1.232 | 4.39  |
| 18) Hexachloroethane       | 0.667          | 0.588 | 0.675 | 0.601 | 0.598 | 0.633 | 0.642 | 0.629 | 5.48  |
| 19) P n-Nitroso-di-n...    | 1.320          | 1.347 | 1.385 | 1.241 | 1.228 | 1.297 | 1.340 | 1.308 | 4.37  |
| 20) 3+4-Methylphenols      | 1.776          | 1.601 | 1.824 | 1.620 | 1.653 | 1.726 | 1.759 | 1.708 | 4.97  |
|                            |                |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.590          | 0.586 | 0.593 | 0.595 | 0.598 | 0.584 | 0.629 | 0.597 | 2.55  |
| 23) S Nitrobenzene-d5      | 0.467          | 0.451 | 0.473 | 0.467 | 0.472 | 0.460 | 0.511 | 0.472 | 4.00  |
| 24) Nitrobenzene           | 0.498          | 0.484 | 0.528 | 0.497 | 0.517 | 0.506 | 0.549 | 0.511 | 4.26  |
| 25) Isophorone             | 0.898          | 0.881 | 0.896 | 0.891 | 0.920 | 0.883 | 0.974 | 0.906 | 3.59  |
| 26) C 2-Nitrophenol        | 0.183          | 0.192 | 0.198 | 0.201 | 0.211 | 0.205 | 0.234 | 0.203 | 8.00  |
| 27) 2,4-Dimethylph...      | 0.304          | 0.294 | 0.296 | 0.305 | 0.307 | 0.303 | 0.328 | 0.305 | 3.56  |
| 28) bis(2-Chloroet...      | 0.424          | 0.404 | 0.434 | 0.417 | 0.436 | 0.418 | 0.457 | 0.427 | 3.96  |
| 29) C 2,4-Dichloroph...    | 0.350          | 0.334 | 0.366 | 0.366 | 0.379 | 0.367 | 0.401 | 0.366 | 5.76  |
| 30) 1,2,4-Trichlor...      | 0.406          | 0.418 | 0.438 | 0.423 | 0.441 | 0.428 | 0.464 | 0.431 | 4.36  |
| 31) Naphthalene            | 1.193          | 1.120 | 1.156 | 1.138 | 1.172 | 1.138 | 1.235 | 1.164 | 3.36  |
| 32) Benzoic acid           |                | 0.149 | 0.194 | 0.229 | 0.248 | 0.244 | 0.269 | 0.222 | 19.67 |
| 33) 4-Chloroaniline        | 0.455          | 0.451 | 0.486 | 0.471 | 0.500 | 0.487 | 0.521 | 0.481 | 5.14  |
| 34) C Hexachlorobuta...    | 0.321          | 0.311 | 0.320 | 0.306 | 0.319 | 0.314 | 0.339 | 0.319 | 3.27  |
| 35) Caprolactam            | 0.122          | 0.107 | 0.109 | 0.115 | 0.121 | 0.114 | 0.125 | 0.116 | 5.84  |
| 36) C 4-Chloro-3-met...    | 0.406          | 0.385 | 0.418 | 0.416 | 0.439 | 0.420 | 0.465 | 0.421 | 6.04  |
| 37) 2-Methylnaphth...      | 0.874          | 0.850 | 0.875 | 0.862 | 0.879 | 0.860 | 0.939 | 0.877 | 3.31  |
| 38) 1-Methylnaphth...      | 0.832          | 0.835 | 0.822 | 0.806 | 0.834 | 0.807 | 0.877 | 0.830 | 2.89  |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\SVOASRV\HPCHEM1\BNA_G\METHODS\ |                   |                |       |       |       |       |       |       |       |       |
| Method File : 8270-BG063021.M                   |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.675          | 0.663 | 0.699 | 0.703 | 0.709 | 0.706 | 0.730 | 0.698 | 3.17  |
| 41) P                                           | Hexachlorocycl... | 0.338          | 0.342 | 0.396 | 0.424 | 0.456 | 0.457 | 0.481 | 0.413 | 13.78 |
| 42) S                                           | 2,4,6-Tribromo... | 0.323          | 0.334 | 0.337 | 0.343 | 0.359 | 0.357 | 0.376 | 0.347 | 5.16  |
| 43) C                                           | 2,4,6-Trichlor... | 0.446          | 0.447 | 0.473 | 0.482 | 0.503 | 0.500 | 0.522 | 0.482 | 5.94  |
| 44)                                             | 2,4,5-Trichlor... | 0.525          | 0.483 | 0.516 | 0.527 | 0.543 | 0.541 | 0.554 | 0.527 | 4.40  |
| 45) S                                           | 2-Fluorobiphenyl  | 1.474          | 1.476 | 1.501 | 1.453 | 1.500 | 1.469 | 1.503 | 1.482 | 1.30  |
| 46)                                             | 1,1'-Biphenyl     | 1.456          | 1.435 | 1.501 | 1.496 | 1.531 | 1.496 | 1.543 | 1.494 | 2.55  |
| 47)                                             | 2-Chloronaphth... | 1.194          | 1.222 | 1.254 | 1.187 | 1.242 | 1.233 | 1.275 | 1.229 | 2.57  |
| 48)                                             | 2-Nitroaniline    | 0.404          | 0.422 | 0.459 | 0.432 | 0.469 | 0.467 | 0.485 | 0.448 | 6.51  |
| 49)                                             | Acenaphthylene    | 1.915          | 1.932 | 1.949 | 1.862 | 1.991 | 1.927 | 1.991 | 1.938 | 2.33  |
| 50)                                             | Dimethylphthalate | 1.556          | 1.595 | 1.615 | 1.571 | 1.632 | 1.602 | 1.665 | 1.605 | 2.30  |
| 51)                                             | 2,6-Dinitrotol... | 0.337          | 0.359 | 0.367 | 0.360 | 0.385 | 0.374 | 0.393 | 0.368 | 5.01  |
| 52) C                                           | Acenaphthene      | 1.222          | 1.149 | 1.205 | 1.184 | 1.226 | 1.222 | 1.248 | 1.208 | 2.68  |
| 53)                                             | 3-Nitroaniline    | 0.345          | 0.348 | 0.336 | 0.332 | 0.369 | 0.364 | 0.380 | 0.353 | 5.05  |
| 54) P                                           | 2,4-Dinitrophenol | 0.171          | 0.195 | 0.217 | 0.249 | 0.244 | 0.256 | 0.222 |       | 15.22 |
| 55)                                             | Dibenzofuran      | 1.992          | 1.974 | 1.978 | 1.878 | 1.994 | 1.941 | 2.009 | 1.967 | 2.26  |
| 56) P                                           | 4-Nitrophenol     | 0.253          | 0.265 | 0.287 | 0.287 | 0.308 | 0.300 | 0.317 | 0.288 | 7.90  |
| 57)                                             | 2,4-Dinitrotol... | 0.486          | 0.500 | 0.510 | 0.504 | 0.546 | 0.539 | 0.575 | 0.523 | 6.05  |
| 58)                                             | Fluorene          | 1.652          | 1.627 | 1.640 | 1.566 | 1.634 | 1.602 | 1.665 | 1.626 | 2.04  |
| 59)                                             | 2,3,4,6-Tetrac... | 0.447          | 0.487 | 0.476 | 0.491 | 0.502 | 0.506 | 0.524 | 0.490 | 4.96  |
| 60)                                             | Diethylphthalate  | 1.658          | 1.732 | 1.670 | 1.660 | 1.727 | 1.687 | 1.772 | 1.701 | 2.55  |
| 61)                                             | 4-Chlorophenyl... | 0.901          | 0.895 | 0.902 | 0.861 | 0.912 | 0.894 | 0.938 | 0.900 | 2.55  |
| 62)                                             | 4-Nitroaniline    | 0.366          | 0.361 | 0.366 | 0.353 | 0.379 | 0.365 | 0.380 | 0.367 | 2.63  |
| 63)                                             | Azobenzene        | 1.755          | 1.736 | 1.731 | 1.644 | 1.708 | 1.694 | 1.734 | 1.715 | 2.15  |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... | 0.117          | 0.130 | 0.137 | 0.143 | 0.155 | 0.151 | 0.168 | 0.143 | 11.88 |
| 66) c                                           | n-Nitrosodiphe... | 0.630          | 0.603 | 0.633 | 0.606 | 0.635 | 0.615 | 0.657 | 0.626 | 3.06  |
| 67)                                             | 4-Bromophenyl-... | 0.259          | 0.252 | 0.275 | 0.264 | 0.277 | 0.269 | 0.292 | 0.270 | 4.88  |
| 68)                                             | Hexachlorobenzene | 0.301          | 0.290 | 0.296 | 0.289 | 0.300 | 0.297 | 0.316 | 0.298 | 3.03  |
| 69)                                             | Atrazine          | 0.223          | 0.215 | 0.219 | 0.220 | 0.203 | 0.188 | 0.186 | 0.208 | 7.54  |
| 70) C                                           | Pentachlorophenol | 0.144          | 0.150 | 0.175 | 0.175 | 0.184 | 0.186 | 0.200 | 0.174 | 11.55 |
| 71)                                             | Phenanthrene      | 1.210          | 1.139 | 1.159 | 1.094 | 1.163 | 1.117 | 1.180 | 1.152 | 3.40  |
| 72)                                             | Anthracene        | 1.208          | 1.165 | 1.169 | 1.084 | 1.150 | 1.096 | 1.165 | 1.148 | 3.80  |
| 73)                                             | Carbazole         | 1.169          | 1.073 | 1.104 | 1.043 | 1.109 | 1.050 | 1.114 | 1.095 | 3.96  |
| 74)                                             | Di-n-butylphth... | 1.284          | 1.249 | 1.282 | 1.208 | 1.283 | 1.216 | 1.290 | 1.259 | 2.76  |
| 75) C                                           | Fluoranthene      | 1.523          | 1.448 | 1.478 | 1.363 | 1.451 | 1.380 | 1.449 | 1.442 | 3.80  |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.413          | 0.379 | 0.482 | 0.511 | 0.392 | 0.423 | 0.407 | 0.430 | 11.30 |
| 78)                                             | Pyrene            | 1.513          | 1.502 | 1.523 | 1.433 | 1.460 | 1.460 | 1.508 | 1.485 | 2.30  |
| 79) S                                           | Terphenyl-d14     | 1.212          | 1.217 | 1.230 | 1.175 | 1.146 | 1.134 | 1.150 | 1.180 | 3.29  |
| 80)                                             | Butylbenzylpht... | 0.534          | 0.538 | 0.558 | 0.558 | 0.566 | 0.576 | 0.609 | 0.563 | 4.45  |
| 81)                                             | Benzo(a)anthra... | 1.532          | 1.487 | 1.528 | 1.435 | 1.464 | 1.468 | 1.528 | 1.492 | 2.58  |
| 82)                                             | 3,3'-Dichlorob... | 0.493          | 0.478 | 0.521 | 0.484 | 0.516 | 0.522 | 0.540 | 0.507 | 4.53  |
| 83)                                             | Chrysene          | 1.441          | 1.391 | 1.462 | 1.373 | 1.399 | 1.397 | 1.455 | 1.417 | 2.46  |
| 84)                                             | Bis(2-ethylhex... | 0.806          | 0.771 | 0.788 | 0.774 | 0.781 | 0.799 | 0.844 | 0.795 | 3.14  |
| 85) c                                           | Di-n-octyl pht... | 1.287          | 1.313 | 1.342 | 1.300 | 1.343 | 1.354 | 1.425 | 1.338 | 3.42  |

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Method File : 8270-BG063021.M

| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |  |      |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|------|
| 87)   | Indeno(1,2,3-c... | 1.568 | 1.540 | 1.621 | 1.539 | 1.609 | 1.598 | 1.697 | 1.596 |  | 3.45 |
| 88)   | Benzo(b)fluora... | 1.440 | 1.390 | 1.446 | 1.405 | 1.473 | 1.429 | 1.519 | 1.443 |  | 2.99 |
| 89)   | Benzo(k)fluora... | 1.398 | 1.362 | 1.404 | 1.322 | 1.356 | 1.359 | 1.438 | 1.377 |  | 2.81 |
| 90) C | Benzo(a)pyrene    | 1.326 | 1.302 | 1.352 | 1.286 | 1.338 | 1.307 | 1.409 | 1.331 |  | 3.06 |
| 91)   | Dibenzo(a,h)an... | 1.329 | 1.325 | 1.350 | 1.304 | 1.354 | 1.344 | 1.423 | 1.347 |  | 2.80 |
| 92)   | Benzo(g,h,i)pe... | 1.327 | 1.285 | 1.328 | 1.282 | 1.338 | 1.319 | 1.414 | 1.328 |  | 3.30 |

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(#) = Out of Range