

Method Path : Z:\SVOASRV\HPCHEM1\BNA\_F\METHODS\  
 Method File : 8270-BF070721.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Thu Jul 08 07:49:42 2021  
 Response Via : Initial Calibration

## Calibration Files

5 =BF124534.D 10 =BF124535.D 20 =BF124536.D 40 =BF124537.D 50 =BF124538.D 60 =BF124539.D 80 =BF124540.D

| Compound |                       | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----    |                       |                |       |       |       |       |       |       |       |       |
| 1) I     | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)       | 1,4-Dioxane           | 0.243          | 0.436 | 0.420 | 0.399 | 0.390 | 0.373 | 0.382 | 0.378 | 16.76 |
| 3)       | Pyridine              | 0.894          | 1.031 | 0.995 | 0.989 | 0.982 | 0.942 | 0.944 | 0.968 | 4.63  |
| 4)       | n-Nitrosodimet...     | 0.756          | 0.795 | 0.795 | 0.828 | 0.794 | 0.797 | 0.745 | 0.787 | 3.52  |
| 5) S     | 2-Fluorophenol        | 1.232          | 1.224 | 1.213 | 1.156 | 1.118 | 1.093 | 1.045 | 1.154 | 6.26  |
| 6)       | Aniline               | 1.497          | 1.559 | 1.556 | 1.473 | 1.472 | 1.435 | 1.365 | 1.480 | 4.56  |
| 7) S     | Phenol-d6             | 1.449          | 1.490 | 1.476 | 1.437 | 1.355 | 1.324 | 1.300 | 1.404 | 5.45  |
| 8)       | 2-Chlorophenol        | 1.293          | 1.382 | 1.367 | 1.332 | 1.268 | 1.207 | 1.211 | 1.294 | 5.43  |
| 9)       | Benzaldehyde          | 0.919          | 0.882 | 0.879 | 0.754 | 0.685 |       |       | 0.824 | 12.10 |
| 10) C    | Phenol                | 1.396          | 1.390 | 1.441 | 1.390 | 1.360 | 1.334 | 1.286 | 1.371 | 3.64  |
| 11)      | bis(2-Chloroet...     | 1.037          | 1.135 | 1.160 | 1.070 | 1.025 | 1.027 | 0.986 | 1.063 | 5.96  |
| 12)      | 1,3-Dichlorobe...     | 1.382          | 1.638 | 1.457 | 1.410 | 1.388 | 1.363 | 1.276 | 1.416 | 7.91  |
| 13) C    | 1,4-Dichlorobe...     | 1.548          | 1.548 | 1.517 | 1.474 | 1.393 | 1.349 | 1.298 | 1.447 | 6.96  |
| 14)      | 1,2-Dichlorobe...     | 1.592          | 1.497 | 1.377 | 1.378 | 1.300 | 1.271 | 1.209 | 1.375 | 9.69  |
| 15)      | Benzyl Alcohol        | 0.919          | 1.051 | 0.975 | 1.012 | 0.991 | 0.946 | 0.908 | 0.972 | 5.27  |
| 16)      | 2,2'-oxybis(1-...     | 1.837          | 1.894 | 1.978 | 1.863 | 1.798 | 1.758 | 1.697 | 1.832 | 5.04  |
| 17)      | 2-Methylphenol        | 0.908          | 1.041 | 1.012 | 0.968 | 0.931 | 0.908 | 0.863 | 0.947 | 6.66  |
| 18)      | Hexachloroethane      | 0.497          | 0.597 | 0.569 | 0.574 | 0.535 | 0.531 | 0.510 | 0.545 | 6.70  |
| 19) P    | n-Nitroso-di-n...     | 0.708          | 0.890 | 0.838 | 0.808 | 0.784 | 0.765 | 0.734 | 0.790 | 7.87  |
| 20)      | 3+4-Methylphenols     | 1.271          | 1.374 | 1.338 | 1.220 | 1.228 | 1.189 | 1.112 | 1.247 | 7.14  |
|          |                       |                |       |       |       |       |       |       |       |       |
| 21) I    | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)      | Acetophenone          | 0.452          | 0.473 | 0.472 | 0.459 | 0.446 | 0.440 | 0.434 | 0.454 | 3.38  |
| 23) S    | Nitrobenzene-d5       | 0.286          | 0.318 | 0.331 | 0.325 | 0.320 | 0.319 | 0.319 | 0.317 | 4.54  |
| 24)      | Nitrobenzene          | 0.293          | 0.321 | 0.312 | 0.329 | 0.317 | 0.316 | 0.312 | 0.314 | 3.56  |
| 25)      | Isophorone            | 0.557          | 0.603 | 0.591 | 0.588 | 0.581 | 0.573 | 0.578 | 0.582 | 2.50  |
| 26) C    | 2-Nitrophenol         | 0.143          | 0.165 | 0.168 | 0.176 | 0.176 | 0.178 | 0.182 | 0.169 | 7.81  |
| 27)      | 2,4-Dimethylph...     | 0.255          | 0.302 | 0.281 | 0.285 | 0.290 | 0.280 | 0.274 | 0.281 | 5.20  |
| 28)      | bis(2-Chloroet...     | 0.336          | 0.343 | 0.360 | 0.337 | 0.333 | 0.335 | 0.330 | 0.339 | 2.99  |
| 29) C    | 2,4-Dichloroph...     | 0.260          | 0.285 | 0.300 | 0.303 | 0.295 | 0.294 | 0.291 | 0.290 | 4.93  |
| 30)      | 1,2,4-Trichlor...     | 0.318          | 0.339 | 0.333 | 0.322 | 0.311 | 0.309 | 0.311 | 0.321 | 3.63  |
| 31)      | Naphthalene           | 0.986          | 1.108 | 1.056 | 1.038 | 1.036 | 1.011 | 1.006 | 1.034 | 3.85  |
| 32)      | Benzoic acid          |                | 0.145 | 0.172 | 0.205 | 0.206 | 0.219 | 0.228 | 0.196 | 15.94 |
| 33)      | 4-Chloroaniline       | 0.393          | 0.408 | 0.404 | 0.405 | 0.377 | 0.382 | 0.369 | 0.391 | 3.97  |
| 34) C    | Hexachlorobuta...     | 0.158          | 0.181 | 0.192 | 0.186 | 0.190 | 0.181 | 0.178 | 0.181 | 6.39  |
| 35)      | Caprolactam           |                | 0.069 | 0.066 | 0.067 | 0.075 | 0.078 | 0.085 | 0.073 | 10.06 |
| 36) C    | 4-Chloro-3-met...     | 0.265          | 0.290 | 0.294 | 0.299 | 0.294 | 0.282 | 0.281 | 0.286 | 3.99  |
| 37)      | 2-Methylnaphth...     | 0.671          | 0.754 | 0.720 | 0.708 | 0.687 | 0.666 | 0.680 | 0.698 | 4.51  |
| 38)      | 1-Methylnaphth...     | 0.617          | 0.707 | 0.686 | 0.653 | 0.653 | 0.637 | 0.636 | 0.656 | 4.76  |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\SVOASRV\HPCHEM1\BNA_F\METHODS\ |                   |                |       |       |       |       |       |       |       |       |
| Method File : 8270-BF070721.M                   |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.506          | 0.545 | 0.555 | 0.545 | 0.523 | 0.530 | 0.530 | 0.533 | 3.08  |
| 41) P                                           | Hexachlorocycl... | 0.310          | 0.351 | 0.340 | 0.342 | 0.330 | 0.337 | 0.323 | 0.333 | 4.14  |
| 42) S                                           | 2,4,6-Tribromo... | 0.141          | 0.162 | 0.173 | 0.158 | 0.153 | 0.148 | 0.154 | 0.156 | 6.49  |
| 43) C                                           | 2,4,6-Trichlor... | 0.364          | 0.376 | 0.377 | 0.398 | 0.396 | 0.395 | 0.389 | 0.385 | 3.32  |
| 44)                                             | 2,4,5-Trichlor... | 0.358          | 0.429 | 0.419 | 0.389 | 0.396 | 0.390 | 0.399 | 0.397 | 5.69  |
| 45) S                                           | 2-Fluorobiphenyl  | 1.395          | 1.462 | 1.425 | 1.380 | 1.331 | 1.320 | 1.288 | 1.372 | 4.50  |
| 46)                                             | 1,1'-Biphenyl     | 1.511          | 1.679 | 1.540 | 1.516 | 1.486 | 1.457 | 1.443 | 1.519 | 5.15  |
| 47)                                             | 2-Chloronaphth... | 1.183          | 1.267 | 1.200 | 1.204 | 1.162 | 1.158 | 1.162 | 1.191 | 3.21  |
| 48)                                             | 2-Nitroaniline    | 0.218          | 0.285 | 0.289 | 0.314 | 0.294 | 0.304 | 0.302 | 0.286 | 11.13 |
| 49)                                             | Acenaphthylene    | 1.878          | 1.987 | 1.864 | 1.864 | 1.824 | 1.797 | 1.795 | 1.858 | 3.55  |
| 50)                                             | Dimethylphthalate | 1.380          | 1.444 | 1.451 | 1.397 | 1.366 | 1.342 | 1.360 | 1.391 | 3.00  |
| 51)                                             | 2,6-Dinitrotol... | 0.213          | 0.272 | 0.262 | 0.311 | 0.286 | 0.288 | 0.288 | 0.274 | 11.30 |
| 52) C                                           | Acenaphthene      | 1.182          | 1.222 | 1.240 | 1.191 | 1.148 | 1.170 | 1.165 | 1.188 | 2.74  |
| 53)                                             | 3-Nitroaniline    | 0.238          | 0.311 | 0.313 | 0.315 | 0.316 | 0.327 | 0.324 | 0.306 | 10.02 |
| 54) P                                           | 2,4-Dinitrophenol | 0.118          | 0.129 | 0.143 | 0.149 | 0.162 | 0.159 | 0.143 |       | 11.99 |
| 55)                                             | Dibenzofuran      | 1.771          | 1.911 | 1.789 | 1.753 | 1.698 | 1.654 | 1.654 | 1.747 | 5.17  |
| 56) P                                           | 4-Nitrophenol     | 0.222          | 0.236 | 0.257 | 0.271 | 0.268 | 0.263 | 0.266 | 0.255 | 7.26  |
| 57)                                             | 2,4-Dinitrotol... | 0.345          | 0.341 | 0.366 | 0.395 | 0.398 | 0.389 | 0.394 | 0.376 | 6.53  |
| 58)                                             | Fluorene          | 1.385          | 1.523 | 1.426 | 1.320 | 1.289 | 1.272 | 1.245 | 1.351 | 7.30  |
| 59)                                             | 2,3,4,6-Tetrac... | 0.270          | 0.302 | 0.331 | 0.312 | 0.313 | 0.310 | 0.309 | 0.307 | 6.02  |
| 60)                                             | Diethylphthalate  | 1.449          | 1.516 | 1.523 | 1.459 | 1.435 | 1.405 | 1.398 | 1.455 | 3.38  |
| 61)                                             | 4-Chlorophenyl... | 0.583          | 0.676 | 0.647 | 0.621 | 0.606 | 0.582 | 0.579 | 0.613 | 6.01  |
| 62)                                             | 4-Nitroaniline    | 0.278          | 0.312 | 0.327 | 0.312 | 0.312 | 0.307 | 0.313 | 0.309 | 4.87  |
| 63)                                             | Azobenzene        | 1.235          | 1.347 | 1.327 | 1.252 | 1.261 | 1.241 | 1.239 | 1.272 | 3.61  |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... | 0.096          | 0.111 | 0.120 | 0.116 | 0.121 | 0.121 | 0.114 |       | 8.60  |
| 66) c                                           | n-Nitrosodiphe... | 0.613          | 0.689 | 0.678 | 0.672 | 0.634 | 0.641 | 0.632 | 0.651 | 4.37  |
| 67)                                             | 4-Bromophenyl-... | 0.200          | 0.227 | 0.215 | 0.211 | 0.201 | 0.197 | 0.197 | 0.207 | 5.42  |
| 68)                                             | Hexachlorobenzene | 0.215          | 0.216 | 0.210 | 0.224 | 0.211 | 0.203 | 0.203 | 0.212 | 3.59  |
| 69)                                             | Atrazine          | 0.209          | 0.219 | 0.207 | 0.205 | 0.184 | 0.188 | 0.184 | 0.199 | 6.93  |
| 70) C                                           | Pentachlorophenol | 0.121          | 0.140 | 0.136 | 0.136 | 0.135 | 0.135 | 0.135 | 0.134 | 4.41  |
| 71)                                             | Phenanthrene      | 1.148          | 1.122 | 1.147 | 1.125 | 1.024 | 1.048 | 1.024 | 1.091 | 5.19  |
| 72)                                             | Anthracene        | 1.152          | 1.107 | 1.178 | 1.119 | 1.022 | 1.047 | 1.037 | 1.095 | 5.51  |
| 73)                                             | Carbazole         | 1.022          | 1.053 | 1.080 | 1.029 | 0.962 | 0.969 | 0.965 | 1.011 | 4.66  |
| 74)                                             | Di-n-butylphth... | 1.360          | 1.412 | 1.455 | 1.407 | 1.302 | 1.317 | 1.284 | 1.363 | 4.71  |
| 75) C                                           | Fluoranthene      | 1.117          | 1.141 | 1.170 | 1.150 | 1.052 | 1.055 | 1.020 | 1.101 | 5.26  |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.901          | 0.888 | 0.759 | 0.747 | 0.651 | 0.657 | 0.631 | 0.748 | 14.91 |
| 78)                                             | Pyrene            | 1.572          | 1.655 | 1.566 | 1.654 | 1.686 | 1.774 | 1.726 | 1.662 | 4.58  |
| 79) S                                           | Terphenyl-d14     | 1.140          | 1.207 | 1.158 | 1.159 | 1.183 | 1.241 | 1.249 | 1.191 | 3.58  |
| 80)                                             | Butylbenzylpht... | 0.765          | 0.801 | 0.759 | 0.812 | 0.813 | 0.849 | 0.825 | 0.803 | 4.00  |
| 81)                                             | Benzo(a)anthra... | 1.318          | 1.361 | 1.325 | 1.321 | 1.306 | 1.351 | 1.303 | 1.326 | 1.64  |
| 82)                                             | 3,3'-Dichlorob... | 0.330          | 0.388 | 0.361 | 0.362 | 0.341 | 0.342 | 0.309 | 0.347 | 7.32  |
| 83)                                             | Chrysene          | 1.249          | 1.291 | 1.274 | 1.285 | 1.267 | 1.294 | 1.235 | 1.271 | 1.73  |
| 84)                                             | Bis(2-ethylhex... | 1.018          | 1.081 | 1.036 | 1.087 | 1.086 | 1.141 | 1.101 | 1.079 | 3.77  |
| 85) c                                           | Di-n-octyl pht... | 1.523          | 1.534 | 1.538 | 1.579 | 1.549 | 1.651 | 1.552 | 1.561 | 2.79  |

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| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |       |  |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 87)   | Indeno(1,2,3-c... | 0.926 | 1.037 | 1.083 | 1.220 | 1.260 | 1.289 | 1.305 | 1.160 | 12.55 |  |
| 88)   | Benzo(b)fluora... | 1.361 | 1.454 | 1.557 | 1.466 | 1.439 | 1.413 | 1.358 | 1.436 | 4.77  |  |
| 89)   | Benzo(k)fluora... | 1.221 | 1.389 | 1.332 | 1.445 | 1.327 | 1.341 | 1.165 | 1.317 | 7.25  |  |
| 90) C | Benzo(a)pyrene    | 1.132 | 1.194 | 1.222 | 1.205 | 1.190 | 1.198 | 1.154 | 1.185 | 2.62  |  |
| 91)   | Dibenzo(a,h)an... | 0.786 | 0.906 | 0.922 | 1.022 | 1.061 | 1.108 | 1.106 | 0.987 | 12.17 |  |
| 92)   | Benzo(g,h,i)pe... | 0.724 | 0.861 | 0.893 | 1.014 | 1.088 | 1.086 | 1.082 | 0.964 | 14.69 |  |

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(#) = Out of Range