

Method Path : Z:\svoasrv\HPCHEM1\BNA\_F\Methods\  
 Method File : 8270-BF021622.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Wed Feb 16 14:55:48 2022  
 Response Via : Initial Calibration

## Calibration Files

5 =BF126905.D 10 =BF126906.D 20 =BF126907.D 40 =BF126908.D 50 =BF126909.D 60 =BF126910.D 80 =BF126911.D

|       | Compound              | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|-------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)    | 1,4-Dioxane           | 0.673          | 0.622 | 0.624 | 0.576 | 0.566 | 0.550 | 0.534 | 0.592 | 8.32  |
| 3)    | Pyridine              | 1.690          | 1.641 | 1.646 | 1.543 | 1.485 | 1.454 | 1.413 | 1.553 | 6.93  |
| 4)    | n-Nitrosodimet...     | 0.819          | 0.781 | 0.807 | 0.773 | 0.734 | 0.713 | 0.698 | 0.761 | 6.14  |
| 5) S  | 2-Fluorophenol        | 1.501          | 1.412 | 1.398 | 1.272 | 1.205 | 1.158 | 1.111 | 1.294 | 11.28 |
| 6)    | Aniline               | 2.293          | 2.167 | 2.231 | 2.101 | 1.972 | 1.886 | 1.832 | 2.069 | 8.52  |
| 7) S  | Phenol-d6             | 2.038          | 1.898 | 1.879 | 1.733 | 1.622 | 1.560 | 1.493 | 1.746 | 11.46 |
| 8)    | 2-Chlorophenol        | 1.589          | 1.523 | 1.505 | 1.381 | 1.293 | 1.249 | 1.180 | 1.388 | 11.17 |
| 9)    | Benzaldehyde          | 1.192          | 1.162 | 1.166 | 0.950 | 0.845 |       |       | 1.063 | 14.68 |
| 10) C | Phenol                | 2.029          | 1.900 | 1.897 | 1.727 | 1.670 | 1.597 | 1.530 | 1.764 | 10.34 |
| 11)   | bis(2-Chloroet...     | 1.622          | 1.475 | 1.486 | 1.371 | 1.303 | 1.234 | 1.196 | 1.384 | 11.04 |
| 12)   | 1,3-Dichlorobe...     | 1.696          | 1.659 | 1.610 | 1.462 | 1.410 | 1.357 | 1.289 | 1.498 | 10.57 |
| 13) C | 1,4-Dichlorobe...     | 1.753          | 1.682 | 1.623 | 1.486 | 1.413 | 1.367 | 1.305 | 1.518 | 11.20 |
| 14)   | 1,2-Dichlorobe...     | 1.727          | 1.590 | 1.563 | 1.425 | 1.330 | 1.288 | 1.213 | 1.448 | 12.81 |
| 15)   | Benzyl Alcohol        | 1.626          | 1.582 | 1.596 | 1.486 | 1.399 | 1.336 | 1.273 | 1.471 | 9.40  |
| 16)   | 2,2'-oxybis(1-...     | 2.529          | 2.393 | 2.369 | 2.174 | 2.028 | 1.938 | 1.822 | 2.179 | 12.04 |
| 17)   | 2-Methylphenol        | 1.363          | 1.302 | 1.283 | 1.201 | 1.121 | 1.090 | 1.049 | 1.201 | 9.90  |
| 18)   | Hexachloroethane      | 0.667          | 0.631 | 0.620 | 0.572 | 0.548 | 0.529 | 0.507 | 0.582 | 10.11 |
| 19) P | n-Nitroso-di-n...     | 1.288          | 1.234 | 1.212 | 1.114 | 1.043 | 1.009 | 0.977 | 1.125 | 10.79 |
| 20)   | 3+4-Methylphenols     | 1.815          | 1.728 | 1.701 | 1.568 | 1.447 | 1.367 | 1.293 | 1.560 | 12.65 |
| 21) I | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22)   | Acetophenone          | 0.606          | 0.564 | 0.556 | 0.500 | 0.502 | 0.483 | 0.475 | 0.527 | 9.31  |
| 23) S | Nitrobenzene-d5       | 0.480          | 0.465 | 0.463 | 0.424 | 0.429 | 0.423 | 0.418 | 0.443 | 5.74  |
| 24)   | Nitrobenzene          | 0.458          | 0.441 | 0.433 | 0.403 | 0.404 | 0.397 | 0.394 | 0.419 | 6.01  |
| 25)   | Isophorone            | 0.803          | 0.751 | 0.759 | 0.707 | 0.711 | 0.700 | 0.701 | 0.733 | 5.35  |
| 26) C | 2-Nitrophenol         | 0.177          | 0.179 | 0.186 | 0.176 | 0.179 | 0.176 | 0.175 | 0.178 | 2.17  |
| 27)   | 2,4-Dimethylph...     | 0.323          | 0.305 | 0.305 | 0.279 | 0.284 | 0.278 | 0.274 | 0.293 | 6.36  |
| 28)   | bis(2-Chloroet...     | 0.492          | 0.466 | 0.469 | 0.425 | 0.427 | 0.420 | 0.412 | 0.445 | 6.84  |
| 29) C | 2,4-Dichloroph...     | 0.295          | 0.285 | 0.289 | 0.266 | 0.269 | 0.265 | 0.258 | 0.275 | 5.13  |
| 30)   | 1,2,4-Trichlor...     | 0.344          | 0.327 | 0.317 | 0.293 | 0.299 | 0.289 | 0.286 | 0.308 | 7.06  |
| 31)   | Naphthalene           | 1.190          | 1.122 | 1.098 | 0.986 | 0.997 | 0.971 | 0.944 | 1.044 | 8.85  |
| 32)   | Benzoic acid          |                | 0.159 | 0.192 | 0.218 | 0.224 | 0.222 | 0.230 | 0.208 | 13.04 |
| 33)   | 4-Chloroaniline       | 0.459          | 0.435 | 0.441 | 0.395 | 0.395 | 0.383 | 0.368 | 0.411 | 8.30  |
| 34) C | Hexachlorobuta...     | 0.192          | 0.195 | 0.188 | 0.172 | 0.174 | 0.170 | 0.167 | 0.180 | 6.43  |
| 35)   | Caprolactam           | 0.102          | 0.099 | 0.099 | 0.095 | 0.095 | 0.091 | 0.093 | 0.096 | 4.10  |
| 36) C | 4-Chloro-3-met...     | 0.374          | 0.372 | 0.364 | 0.346 | 0.342 | 0.333 | 0.333 | 0.352 | 5.03  |
| 37)   | 2-Methylnaphth...     | 0.782          | 0.729 | 0.711 | 0.649 | 0.644 | 0.618 | 0.610 | 0.677 | 9.45  |
| 38)   | 1-Methylnaphth...     | 0.743          | 0.696 | 0.683 | 0.619 | 0.616 | 0.597 | 0.587 | 0.649 | 9.07  |

|                                                 |                   |                |       |       |       |       |       |       |       |       |
|-------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\ |                   |                |       |       |       |       |       |       |       |       |
| Method File : 8270-BF021622.M                   |                   |                |       |       |       |       |       |       |       |       |
| 39) I                                           | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 40)                                             | 1,2,4,5-Tetrac... | 0.574          | 0.550 | 0.552 | 0.496 | 0.509 | 0.502 | 0.504 | 0.526 | 5.91  |
| 41) P                                           | Hexachlorocycl... | 0.243          | 0.256 | 0.291 | 0.287 | 0.302 | 0.306 | 0.313 | 0.286 | 9.19  |
| 42) S                                           | 2,4,6-Tribromo... | 0.242          | 0.237 | 0.239 | 0.227 | 0.222 | 0.222 | 0.223 | 0.230 | 3.85  |
| 43) C                                           | 2,4,6-Trichlor... | 0.408          | 0.397 | 0.404 | 0.373 | 0.379 | 0.367 | 0.376 | 0.386 | 4.25  |
| 44)                                             | 2,4,5-Trichlor... | 0.435          | 0.425 | 0.413 | 0.395 | 0.401 | 0.386 | 0.389 | 0.406 | 4.66  |
| 45) S                                           | 2-Fluorobiphenyl  | 1.589          | 1.478 | 1.436 | 1.269 | 1.280 | 1.231 | 1.228 | 1.359 | 10.44 |
| 46)                                             | 1,1'-Biphenyl     | 1.789          | 1.711 | 1.661 | 1.499 | 1.514 | 1.456 | 1.463 | 1.585 | 8.44  |
| 47)                                             | 2-Chloronaphth... | 1.302          | 1.246 | 1.232 | 1.127 | 1.125 | 1.102 | 1.090 | 1.175 | 7.10  |
| 48)                                             | 2-Nitroaniline    | 0.470          | 0.477 | 0.486 | 0.449 | 0.463 | 0.447 | 0.454 | 0.464 | 3.18  |
| 49)                                             | Acenaphthylene    | 2.139          | 2.046 | 2.019 | 1.831 | 1.815 | 1.778 | 1.732 | 1.909 | 8.20  |
| 50)                                             | Dimethylphthalate | 1.586          | 1.513 | 1.492 | 1.367 | 1.365 | 1.340 | 1.343 | 1.430 | 6.94  |
| 51)                                             | 2,6-Dinitrotol... | 0.310          | 0.296 | 0.306 | 0.284 | 0.285 | 0.278 | 0.278 | 0.291 | 4.48  |
| 52) C                                           | Acenaphthene      | 1.350          | 1.293 | 1.303 | 1.198 | 1.203 | 1.174 | 1.168 | 1.241 | 5.84  |
| 53)                                             | 3-Nitroaniline    | 0.370          | 0.375 | 0.373 | 0.348 | 0.346 | 0.336 | 0.340 | 0.356 | 4.65  |
| 54) P                                           | 2,4-Dinitrophenol | 0.119          | 0.145 | 0.162 | 0.162 | 0.164 | 0.172 | 0.154 |       | 12.49 |
| 55)                                             | Dibenzofuran      | 1.955          | 1.836 | 1.795 | 1.628 | 1.621 | 1.569 | 1.545 | 1.707 | 9.10  |
| 56) P                                           | 4-Nitrophenol     | 0.252          | 0.261 | 0.278 | 0.264 | 0.265 | 0.261 | 0.259 | 0.263 | 3.01  |
| 57)                                             | 2,4-Dinitrotol... | 0.408          | 0.406 | 0.416 | 0.388 | 0.384 | 0.374 | 0.376 | 0.393 | 4.30  |
| 58)                                             | Fluorene          | 1.528          | 1.456 | 1.404 | 1.260 | 1.246 | 1.205 | 1.208 | 1.330 | 9.84  |
| 59)                                             | 2,3,4,6-Tetrac... | 0.336          | 0.337 | 0.339 | 0.313 | 0.318 | 0.305 | 0.308 | 0.322 | 4.59  |
| 60)                                             | Diethylphthalate  | 1.657          | 1.613 | 1.580 | 1.437 | 1.431 | 1.373 | 1.367 | 1.494 | 8.03  |
| 61)                                             | 4-Chlorophenyl... | 0.707          | 0.682 | 0.651 | 0.600 | 0.592 | 0.575 | 0.582 | 0.627 | 8.37  |
| 62)                                             | 4-Nitroaniline    | 0.378          | 0.361 | 0.368 | 0.348 | 0.339 | 0.332 | 0.332 | 0.351 | 5.13  |
| 63)                                             | Azobenzene        | 1.867          | 1.781 | 1.760 | 1.599 | 1.594 | 1.540 | 1.503 | 1.663 | 8.31  |
| 64) I                                           | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 65)                                             | 4,6-Dinitro-2-... | 0.089          | 0.106 | 0.122 | 0.124 | 0.128 | 0.127 | 0.127 | 0.118 | 12.43 |
| 66) c                                           | n-Nitrosodiphe... | 0.728          | 0.679 | 0.694 | 0.632 | 0.631 | 0.617 | 0.610 | 0.656 | 6.82  |
| 67)                                             | 4-Bromophenyl-... | 0.236          | 0.230 | 0.237 | 0.216 | 0.216 | 0.215 | 0.213 | 0.223 | 4.72  |
| 68)                                             | Hexachlorobenzene | 0.257          | 0.252 | 0.252 | 0.229 | 0.235 | 0.230 | 0.229 | 0.241 | 5.16  |
| 69)                                             | Atrazine          | 0.232          | 0.221 | 0.222 | 0.194 | 0.193 | 0.185 | 0.178 | 0.203 | 10.40 |
| 70) C                                           | Pentachlorophenol | 0.110          | 0.116 | 0.141 | 0.137 | 0.139 | 0.140 | 0.137 | 0.131 | 9.77  |
| 71)                                             | Phenanthrene      | 1.275          | 1.193 | 1.199 | 1.056 | 1.070 | 1.034 | 1.009 | 1.119 | 9.08  |
| 72)                                             | Anthracene        | 1.245          | 1.190 | 1.191 | 1.068 | 1.071 | 1.028 | 1.008 | 1.114 | 8.31  |
| 73)                                             | Carbazole         | 1.153          | 1.101 | 1.093 | 0.976 | 0.970 | 0.942 | 0.918 | 1.022 | 8.97  |
| 74)                                             | Di-n-butylphth... | 1.457          | 1.403 | 1.404 | 1.269 | 1.256 | 1.225 | 1.182 | 1.314 | 8.06  |
| 75) C                                           | Fluoranthene      | 1.225          | 1.150 | 1.140 | 1.010 | 1.008 | 0.972 | 0.934 | 1.063 | 10.21 |
| 76) I                                           | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 77)                                             | Benzidine         | 0.574          | 0.551 | 0.618 | 0.558 | 0.415 |       | 0.544 |       | 14.01 |
| 78)                                             | Pyrene            | 1.777          | 1.731 | 1.785 | 1.737 | 1.751 | 1.700 | 1.683 | 1.738 | 2.15  |
| 79) S                                           | Terphenyl-d14     | 1.430          | 1.390 | 1.409 | 1.326 | 1.348 | 1.324 | 1.295 | 1.361 | 3.69  |
| 80)                                             | Butylbenzylpht... | 0.836          | 0.829 | 0.863 | 0.829 | 0.816 | 0.791 | 0.794 | 0.823 | 3.05  |
| 81)                                             | Benzo(a)anthra... | 1.427          | 1.417 | 1.398 | 1.322 | 1.318 | 1.283 | 1.274 | 1.348 | 4.77  |
| 82)                                             | 3,3'-Dichlorob... | 0.454          | 0.443 | 0.456 | 0.425 | 0.410 | 0.407 | 0.381 | 0.425 | 6.54  |
| 83)                                             | Chrysene          | 1.352          | 1.332 | 1.306 | 1.242 | 1.235 | 1.218 | 1.191 | 1.268 | 4.83  |
| 84)                                             | Bis(2-ethylhex... | 1.130          | 1.112 | 1.132 | 1.069 | 1.071 | 1.033 | 1.014 | 1.080 | 4.32  |
| 85) c                                           | Di-n-octyl pht... | 1.651          | 1.618 | 1.590 | 1.507 | 1.515 | 1.517 | 1.487 | 1.555 | 4.11  |

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Method File : 8270-BF021622.M

| 86) I | Perylene-d12      |       |       |       |       |       |       |       |       |  |  |      |  |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|------|--|
| 87)   | Indeno(1,2,3-c... | 1.209 | 1.182 | 1.278 | 1.368 | 1.328 | 1.410 | 1.405 | 1.311 |  |  | 6.96 |  |
| 88)   | Benzo(b)fluora... | 1.485 | 1.405 | 1.437 | 1.298 | 1.221 | 1.337 | 1.220 | 1.343 |  |  | 7.73 |  |
| 89)   | Benzo(k)fluora... | 1.434 | 1.418 | 1.312 | 1.292 | 1.260 | 1.176 | 1.177 | 1.296 |  |  | 7.96 |  |
| 90) C | Benzo(a)pyrene    | 1.116 | 1.068 | 1.081 | 1.047 | 1.001 | 1.034 | 0.997 | 1.049 |  |  | 4.09 |  |
| 91)   | Dibenzo(a,h)an... | 0.999 | 0.980 | 1.072 | 1.124 | 1.096 | 1.169 | 1.152 | 1.085 |  |  | 6.72 |  |
| 92)   | Benzo(g,h,i)pe... | 0.970 | 0.950 | 1.037 | 1.122 | 1.106 | 1.142 | 1.159 | 1.069 |  |  | 7.89 |  |

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(#) = Out of Range