

Method Path : Z:\SVOASRV\HPCHEM1\BNA\_M\METHODS\  
 Method File : 8270-BM070820.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Mon Dec 03 04:47:00 2018  
 Response Via : Initial Calibration

## Calibration Files

5 =BM026672.D 10 =BM026673.D 20 =BM026674.D 40 =BM026724.D 50 =BM026676.D 60 =BM026677.D 80 =BM026678.D

| Compound                   | 5              | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.587          | 0.639 | 0.618 | 0.561 | 0.554 | 0.524 | 0.531 | 0.573 | 7.56  |
| 3) Pyridine                | 1.416          | 1.612 | 1.747 | 1.698 | 1.686 | 1.632 | 1.688 | 1.640 | 6.61  |
| 4) n-Nitrosodimet...       | 0.900          | 0.939 | 1.113 | 1.010 | 1.003 | 0.931 | 0.974 | 0.982 | 7.15  |
| 5) S 2-Fluorophenol        | 1.143          | 1.168 | 1.290 | 1.189 | 1.197 | 1.164 | 1.202 | 1.193 | 3.98  |
| 6) Aniline                 | 2.234          | 2.271 | 2.478 | 2.379 | 2.405 | 2.284 | 2.284 | 2.333 | 3.78  |
| 7) S Phenol-d6             | 1.701          | 1.823 | 2.013 | 1.950 | 1.956 | 1.899 | 1.966 | 1.901 | 5.62  |
| 8) 2-Chlorophenol          | 1.363          | 1.385 | 1.504 | 1.426 | 1.448 | 1.379 | 1.444 | 1.421 | 3.45  |
| 9) Benzaldehyde            | 0.964          | 1.201 | 1.246 | 1.022 | 0.990 | 0.909 |       | 1.055 | 12.90 |
| 10) C Phenol               | 1.725          | 1.792 | 1.991 | 1.910 | 1.926 | 1.860 | 1.949 | 1.879 | 4.98  |
| 11) bis(2-Chloroet...      | 1.600          | 1.561 | 1.682 | 1.572 | 1.565 | 1.495 | 1.522 | 1.571 | 3.82  |
| 12) 1,3-Dichlorobe...      | 1.542          | 1.551 | 1.650 | 1.539 | 1.545 | 1.470 | 1.518 | 1.545 | 3.48  |
| 13) C 1,4-Dichlorobe...    | 1.610          | 1.567 | 1.678 | 1.556 | 1.568 | 1.487 | 1.541 | 1.573 | 3.78  |
| 14) 1,2-Dichlorobe...      | 1.525          | 1.579 | 1.674 | 1.561 | 1.573 | 1.508 | 1.547 | 1.567 | 3.43  |
| 15) Benzyl Alcohol         | 1.475          | 1.534 | 1.710 | 1.687 | 1.688 | 1.606 | 1.688 | 1.627 | 5.62  |
| 16) 2,2'-oxybis(1-...      | 3.277          | 3.315 | 3.519 | 3.255 | 3.194 | 3.045 | 3.093 | 3.243 | 4.83  |
| 17) 2-Methylphenol         | 1.330          | 1.380 | 1.528 | 1.461 | 1.466 | 1.391 | 1.439 | 1.428 | 4.60  |
| 18) Hexachloroethane       | 0.614          | 0.622 | 0.660 | 0.622 | 0.634 | 0.599 | 0.620 | 0.625 | 3.03  |
| 19) P n-Nitroso-di-n...    | 1.423          | 1.548 | 1.701 | 1.615 | 1.629 | 1.548 | 1.609 | 1.582 | 5.53  |
| 20) 3+4-Methylphenols      | 1.771          | 1.831 | 2.088 | 2.026 | 2.046 | 1.947 | 2.033 | 1.963 | 6.10  |
|                            |                |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.524          | 0.532 | 0.578 | 0.584 | 0.588 | 0.574 | 0.599 | 0.568 | 5.07  |
| 23) S Nitrobenzene-d5      | 0.432          | 0.436 | 0.480 | 0.483 | 0.487 | 0.473 | 0.491 | 0.469 | 5.18  |
| 24) Nitrobenzene           | 0.486          | 0.467 | 0.504 | 0.501 | 0.504 | 0.486 | 0.504 | 0.493 | 2.89  |
| 25) Isophorone             | 0.817          | 0.838 | 0.919 | 0.931 | 0.938 | 0.907 | 0.943 | 0.899 | 5.65  |
| 26) C 2-Nitrophenol        | 0.149          | 0.157 | 0.183 | 0.191 | 0.198 | 0.194 | 0.203 | 0.182 | 11.43 |
| 27) 2,4-Dimethylph...      | 0.262          | 0.273 | 0.306 | 0.307 | 0.309 | 0.302 | 0.312 | 0.296 | 6.71  |
| 28) bis(2-Chloroet...      | 0.477          | 0.465 | 0.513 | 0.506 | 0.511 | 0.491 | 0.512 | 0.497 | 3.86  |
| 29) C 2,4-Dichloroph...    | 0.280          | 0.296 | 0.330 | 0.342 | 0.346 | 0.336 | 0.353 | 0.326 | 8.41  |
| 30) 1,2,4-Trichlor...      | 0.358          | 0.341 | 0.371 | 0.371 | 0.371 | 0.362 | 0.372 | 0.364 | 3.14  |
| 31) Naphthalene            | 1.088          | 1.054 | 1.139 | 1.124 | 1.134 | 1.103 | 1.146 | 1.112 | 2.96  |
| 32) Benzoic acid           |                | 0.118 | 0.187 | 0.248 | 0.256 | 0.259 | 0.280 | 0.225 | 27.05 |
| 33) 4-Chloroaniline        | 0.427          | 0.449 | 0.492 | 0.508 | 0.513 | 0.495 | 0.522 | 0.487 | 7.19  |
| 34) C Hexachlorobuta...    | 0.241          | 0.230 | 0.245 | 0.246 | 0.244 | 0.235 | 0.245 | 0.241 | 2.56  |
| 35) Caprolactam            | 0.090          | 0.100 | 0.118 | 0.123 | 0.129 | 0.121 | 0.128 | 0.115 | 12.99 |
| 36) C 4-Chloro-3-met...    | 0.355          | 0.378 | 0.425 | 0.428 | 0.437 | 0.420 | 0.441 | 0.412 | 7.87  |
| 37) 2-Methylnaphth...      | 0.798          | 0.772 | 0.838 | 0.840 | 0.849 | 0.814 | 0.856 | 0.824 | 3.69  |
| 38) 1-Methylnaphth...      | 0.758          | 0.748 | 0.806 | 0.801 | 0.817 | 0.783 | 0.813 | 0.789 | 3.48  |

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|       |                   |                |       |       |       |       |       |       |       |  |  |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 39) I | Acenaphthene-d10  | -----ISTD----- |       |       |       |       |       |       |       |  |  |
| 40)   | 1,2,4,5-Tetrac... | 0.612          | 0.588 | 0.660 | 0.662 | 0.652 | 0.692 | 0.647 | 5.41  |  |  |
| 41) P | Hexachlorocycl... | 0.194          | 0.277 | 0.331 | 0.334 | 0.341 | 0.374 | 0.309 | 20.76 |  |  |
| 42) S | 2,4,6-Tribromo... | 0.245          | 0.258 | 0.299 | 0.305 | 0.310 | 0.298 | 0.324 | 9.89  |  |  |
| 43) C | 2,4,6-Trichlor... | 0.346          | 0.372 | 0.441 | 0.450 | 0.453 | 0.436 | 0.468 | 10.82 |  |  |
| 44)   | 2,4,5-Trichlor... | 0.440          | 0.434 | 0.518 | 0.524 | 0.519 | 0.509 | 0.540 | 8.51  |  |  |
| 45) S | 2-Fluorobiphenyl  | 1.460          | 1.394 | 1.524 | 1.525 | 1.535 | 1.501 | 1.590 | 4.13  |  |  |
| 46)   | 1,1'-Biphenyl     | 1.522          | 1.469 | 1.624 | 1.595 | 1.617 | 1.566 | 1.666 | 4.23  |  |  |
| 47)   | 2-Chloronaphth... | 1.209          | 1.176 | 1.308 | 1.301 | 1.305 | 1.280 | 1.354 | 4.86  |  |  |
| 48)   | 2-Nitroaniline    | 0.416          | 0.452 | 0.542 | 0.560 | 0.572 | 0.548 | 0.586 | 12.35 |  |  |
| 49)   | Acenaphthylene    | 1.887          | 1.860 | 2.081 | 2.088 | 2.101 | 2.059 | 2.204 | 6.03  |  |  |
| 50)   | Dimethylphthalate | 1.642          | 1.615 | 1.767 | 1.734 | 1.755 | 1.679 | 1.782 | 3.82  |  |  |
| 51)   | 2,6-Dinitrotol... | 0.325          | 0.325 | 0.381 | 0.379 | 0.387 | 0.370 | 0.397 | 8.09  |  |  |
| 52) C | Acenaphthene      | 1.187          | 1.142 | 1.277 | 1.267 | 1.264 | 1.235 | 1.308 | 4.64  |  |  |
| 53)   | 3-Nitroaniline    | 0.294          | 0.321 | 0.391 | 0.404 | 0.421 | 0.402 | 0.435 | 13.84 |  |  |
| 54) P | 2,4-Dinitrophenol | 0.131          | 0.192 | 0.227 | 0.239 | 0.237 | 0.261 | 0.214 | 21.72 |  |  |
| 55)   | Dibenzofuran      | 1.958          | 1.886 | 2.078 | 2.059 | 2.083 | 2.009 | 2.159 | 4.45  |  |  |
| 56) P | 4-Nitrophenol     | 0.213          | 0.289 | 0.315 | 0.328 | 0.311 | 0.338 | 0.299 | 15.10 |  |  |
| 57)   | 2,4-Dinitrotol... | 0.426          | 0.465 | 0.544 | 0.556 | 0.571 | 0.545 | 0.594 | 11.44 |  |  |
| 58)   | Fluorene          | 1.564          | 1.544 | 1.700 | 1.725 | 1.747 | 1.683 | 1.820 | 5.87  |  |  |
| 59)   | 2,3,4,6-Tetrac... | 0.377          | 0.400 | 0.448 | 0.452 | 0.462 | 0.439 | 0.465 | 7.66  |  |  |
| 60)   | Diethylphthalate  | 1.678          | 1.681 | 1.865 | 1.847 | 1.880 | 1.791 | 1.920 | 5.32  |  |  |
| 61)   | 4-Chlorophenyl... | 0.864          | 0.836 | 0.931 | 0.925 | 0.937 | 0.912 | 0.978 | 5.23  |  |  |
| 62)   | 4-Nitroaniline    | 0.279          | 0.317 | 0.411 | 0.430 | 0.445 | 0.430 | 0.472 | 17.93 |  |  |
| 63)   | Azobenzene        | 1.794          | 1.822 | 2.071 | 2.057 | 2.069 | 1.979 | 2.116 | 6.50  |  |  |
| 64) I | Phenanthrene-d10  | -----ISTD----- |       |       |       |       |       |       |       |  |  |
| 65)   | 4,6-Dinitro-2-... | 0.098          | 0.130 | 0.142 | 0.145 | 0.145 | 0.157 | 0.136 | 15.17 |  |  |
| 66) c | n-Nitrosodiphe... | 0.587          | 0.577 | 0.649 | 0.652 | 0.659 | 0.646 | 0.680 | 6.04  |  |  |
| 67)   | 4-Bromophenyl-... | 0.239          | 0.228 | 0.253 | 0.255 | 0.255 | 0.249 | 0.263 | 4.76  |  |  |
| 68)   | Hexachlorobenzene | 0.251          | 0.245 | 0.271 | 0.265 | 0.269 | 0.259 | 0.274 | 4.05  |  |  |
| 69)   | Atrazine          | 0.168          | 0.203 | 0.219 | 0.206 | 0.195 | 0.179 | 0.167 | 10.47 |  |  |
| 70) C | Pentachlorophenol | 0.112          | 0.146 | 0.157 | 0.159 | 0.153 | 0.162 | 0.148 | 12.49 |  |  |
| 71)   | Phenanthrene      | 1.137          | 1.090 | 1.205 | 1.199 | 1.214 | 1.176 | 1.243 | 4.37  |  |  |
| 72)   | Anthracene        | 1.104          | 1.061 | 1.194 | 1.204 | 1.218 | 1.186 | 1.261 | 5.88  |  |  |
| 73)   | Carbazole         | 1.000          | 1.015 | 1.147 | 1.155 | 1.171 | 1.143 | 1.212 | 7.19  |  |  |
| 74)   | Di-n-butylphth... | 1.182          | 1.239 | 1.442 | 1.466 | 1.513 | 1.457 | 1.565 | 10.12 |  |  |
| 75) C | Fluoranthene      | 1.347          | 1.326 | 1.490 | 1.480 | 1.518 | 1.462 | 1.558 | 5.93  |  |  |
| 76) I | Chrysene-d12      | -----ISTD----- |       |       |       |       |       |       |       |  |  |
| 77)   | Benzidine         | 0.315          | 0.435 | 0.434 | 0.415 | 0.338 | 0.429 | 0.394 | 13.57 |  |  |
| 78)   | Pyrene            | 1.198          | 1.156 | 1.298 | 1.284 | 1.300 | 1.258 | 1.326 | 4.88  |  |  |
| 79) S | Terphenyl-d14     | 0.958          | 0.926 | 1.038 | 1.047 | 1.057 | 1.016 | 1.072 | 5.38  |  |  |
| 80)   | Butylbenzylpht... | 0.458          | 0.483 | 0.578 | 0.598 | 0.617 | 0.590 | 0.634 | 11.95 |  |  |
| 81)   | Benzo(a)anthra... | 1.289          | 1.246 | 1.396 | 1.357 | 1.389 | 1.329 | 1.399 | 4.38  |  |  |
| 82)   | 3,3'-Dichlorob... | 0.366          | 0.392 | 0.453 | 0.443 | 0.457 | 0.429 | 0.444 | 8.00  |  |  |
| 83)   | Chrysene          | 1.276          | 1.233 | 1.346 | 1.321 | 1.342 | 1.288 | 1.348 | 3.33  |  |  |
| 84)   | Bis(2-ethylhex... | 0.732          | 0.777 | 0.935 | 0.953 | 0.976 | 0.946 | 1.021 | 11.91 |  |  |
| 85) c | Di-n-octyl pht... | 1.253          | 1.325 | 1.593 | 1.632 | 1.680 | 1.628 | 1.726 | 11.84 |  |  |

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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Indeno(1,2,3-c... | 1.404          | 1.300 | 1.475 | 1.481 | 1.488 | 1.404 | 1.415 | 1.424 | 4.64 |
| 88)   | Benzo(b)fluora... | 1.248          | 1.160 | 1.344 | 1.373 | 1.359 | 1.302 | 1.438 | 1.318 | 6.92 |
| 89)   | Benzo(k)fluora... | 1.240          | 1.154 | 1.291 | 1.396 | 1.310 | 1.314 | 1.343 | 1.293 | 5.99 |
| 90) C | Benzo(a)pyrene    | 1.188          | 1.078 | 1.231 | 1.292 | 1.254 | 1.226 | 1.294 | 1.223 | 6.09 |
| 91)   | Dibenzo(a,h)an... | 1.180          | 1.094 | 1.234 | 1.251 | 1.258 | 1.189 | 1.208 | 1.202 | 4.68 |
| 92)   | Benzo(g,h,i)pe... | 1.128          | 1.040 | 1.175 | 1.137 | 1.143 | 1.066 | 1.062 | 1.107 | 4.58 |

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(#) = Out of Range