

Method Path : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\  
 Method File : 8270-BM020824.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Feb 09 02:42:01 2024  
 Response Via : Initial Calibration

## Calibration Files

2.5 =BM044019.D 5 =BM044020.D 10 =BM044021.D 20 =BM044022.D 40 =BM044023.D 50 =BM044024.D 60 =BM044025.D 80 =BM044026.D

| Compound                   | 2.5            | 5     | 10    | 20    | 40    | 50    | 60    | 80    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.572          | 0.559 | 0.549 | 0.525 | 0.531 | 0.543 | 0.540 | 0.546 |       | 2.96  |
| 3) Pyridine                | 1.422          | 1.443 | 1.447 | 1.417 | 1.425 | 1.477 | 1.455 | 1.441 |       | 1.48  |
| 4) n-Nitrosodimet...       | 0.513          | 0.536 | 0.548 | 0.541 | 0.552 | 0.572 | 0.564 | 0.547 |       | 3.53  |
| 5) S 2-Fluorophenol        | 1.424          | 1.407 | 1.400 | 1.330 | 1.350 | 1.374 | 1.340 | 1.375 |       | 2.63  |
| 6) Aniline                 | 1.699          | 1.700 | 1.762 | 1.707 | 1.718 | 1.756 | 1.700 | 1.720 |       | 1.59  |
| 7) S Phenol-d6             | 1.781          | 1.804 | 1.812 | 1.708 | 1.715 | 1.748 | 1.679 | 1.750 |       | 2.92  |
| 8) 2-Chlorophenol          | 1.467          | 1.457 | 1.483 | 1.393 | 1.415 | 1.431 | 1.406 | 1.436 |       | 2.34  |
| 9) Benzaldehyde            |                | 1.101 | 1.008 | 0.875 | 0.838 | 0.837 | 0.737 | 0.899 |       | 14.66 |
| 10) C Phenol               | 1.784          | 1.780 | 1.825 | 1.722 | 1.748 | 1.779 | 1.724 | 1.766 |       | 2.09  |
| 11) bis(2-Chloroet...      | 1.471          | 1.487 | 1.511 | 1.424 | 1.440 | 1.474 | 1.429 | 1.462 |       | 2.20  |
| 12) 1,3-Dichlorobe...      | 1.701          | 1.674 | 1.674 | 1.578 | 1.585 | 1.617 | 1.584 | 1.630 |       | 3.15  |
| 13) C 1,4-Dichlorobe...    | 1.716          | 1.686 | 1.692 | 1.589 | 1.598 | 1.624 | 1.598 | 1.643 |       | 3.24  |
| 14) 1,2-Dichlorobe...      | 1.634          | 1.634 | 1.627 | 1.512 | 1.522 | 1.538 | 1.495 | 1.566 |       | 3.99  |
| 15) Benzyl Alcohol         | 1.108          | 1.142 | 1.192 | 1.126 | 1.139 | 1.150 | 1.117 | 1.139 |       | 2.41  |
| 16) 2,2'-oxybis(1-...      | 1.925          | 1.925 | 1.927 | 1.804 | 1.807 | 1.821 | 1.768 | 1.854 |       | 3.72  |
| 17) 2-Methylphenol         | 1.160          | 1.175 | 1.204 | 1.136 | 1.142 | 1.170 | 1.127 | 1.159 |       | 2.28  |
| 18) Hexachloroethane       | 0.619          | 0.636 | 0.630 | 0.595 | 0.603 | 0.618 | 0.607 | 0.615 |       | 2.42  |
| 19) P n-Nitroso-di-n...    | 1.098          | 1.108 | 1.118 | 1.151 | 1.054 | 1.042 | 1.038 | 0.984 | 1.074 | 5.02  |
| 20) 3+4-Methylphenols      |                | 1.545 | 1.632 | 1.672 | 1.581 | 1.568 | 1.611 | 1.557 | 1.595 | 2.84  |
|                            |                |       |       |       |       |       |       |       |       |       |
| 21) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 22) Acetophenone           | 0.514          | 0.524 | 0.522 | 0.498 | 0.502 | 0.508 | 0.486 | 0.508 |       | 2.72  |
| 23) S Nitrobenzene-d5      | 0.378          | 0.378 | 0.385 | 0.370 | 0.376 | 0.380 | 0.371 | 0.377 |       | 1.38  |
| 24) Nitrobenzene           | 0.387          | 0.386 | 0.393 | 0.381 | 0.384 | 0.390 | 0.381 | 0.386 |       | 1.17  |
| 25) Isophorone             | 0.711          | 0.728 | 0.747 | 0.719 | 0.722 | 0.739 | 0.713 | 0.726 |       | 1.82  |
| 26) C 2-Nitrophenol        | 0.154          | 0.168 | 0.178 | 0.180 | 0.187 | 0.194 | 0.191 | 0.179 |       | 7.80  |
| 27) 2,4-Dimethylph...      | 0.216          | 0.228 | 0.232 | 0.228 | 0.231 | 0.237 | 0.229 | 0.229 |       | 2.77  |
| 28) bis(2-Chloroet...      | 0.475          | 0.478 | 0.478 | 0.460 | 0.464 | 0.474 | 0.456 | 0.469 |       | 1.91  |
| 29) C 2,4-Dichloroph...    | 0.278          | 0.294 | 0.306 | 0.300 | 0.307 | 0.316 | 0.308 | 0.301 |       | 4.12  |
| 30) 1,2,4-Trichlor...      | 0.344          | 0.336 | 0.344 | 0.331 | 0.336 | 0.344 | 0.336 | 0.339 |       | 1.54  |
| 31) Naphthalene            | 1.135          | 1.134 | 1.128 | 1.073 | 1.090 | 1.100 | 1.067 | 1.104 |       | 2.62  |
| 32) Benzoic acid           |                | 0.176 | 0.217 | 0.232 | 0.244 | 0.258 | 0.256 | 0.230 |       | 13.33 |
| 33) 4-Chloroaniline        | 0.412          | 0.415 | 0.423 | 0.411 | 0.419 | 0.430 | 0.417 | 0.418 |       | 1.55  |
| 34) C Hexachlorobuta...    | 0.196          | 0.196 | 0.197 | 0.189 | 0.193 | 0.196 | 0.190 | 0.194 |       | 1.71  |
| 35) Caprolactam            | 0.085          | 0.091 | 0.096 | 0.097 | 0.101 | 0.106 | 0.103 | 0.097 |       | 7.47  |
| 36) C 4-Chloro-3-met...    | 0.307          | 0.322 | 0.334 | 0.325 | 0.330 | 0.339 | 0.327 | 0.326 |       | 3.16  |
| 37) 2-Methylnaphth...      | 0.764          | 0.757 | 0.757 | 0.721 | 0.719 | 0.726 | 0.703 | 0.735 |       | 3.22  |
| 38) 1-Methylnaphth...      | 0.760          | 0.748 | 0.740 | 0.701 | 0.706 | 0.714 | 0.688 | 0.722 |       | 3.75  |

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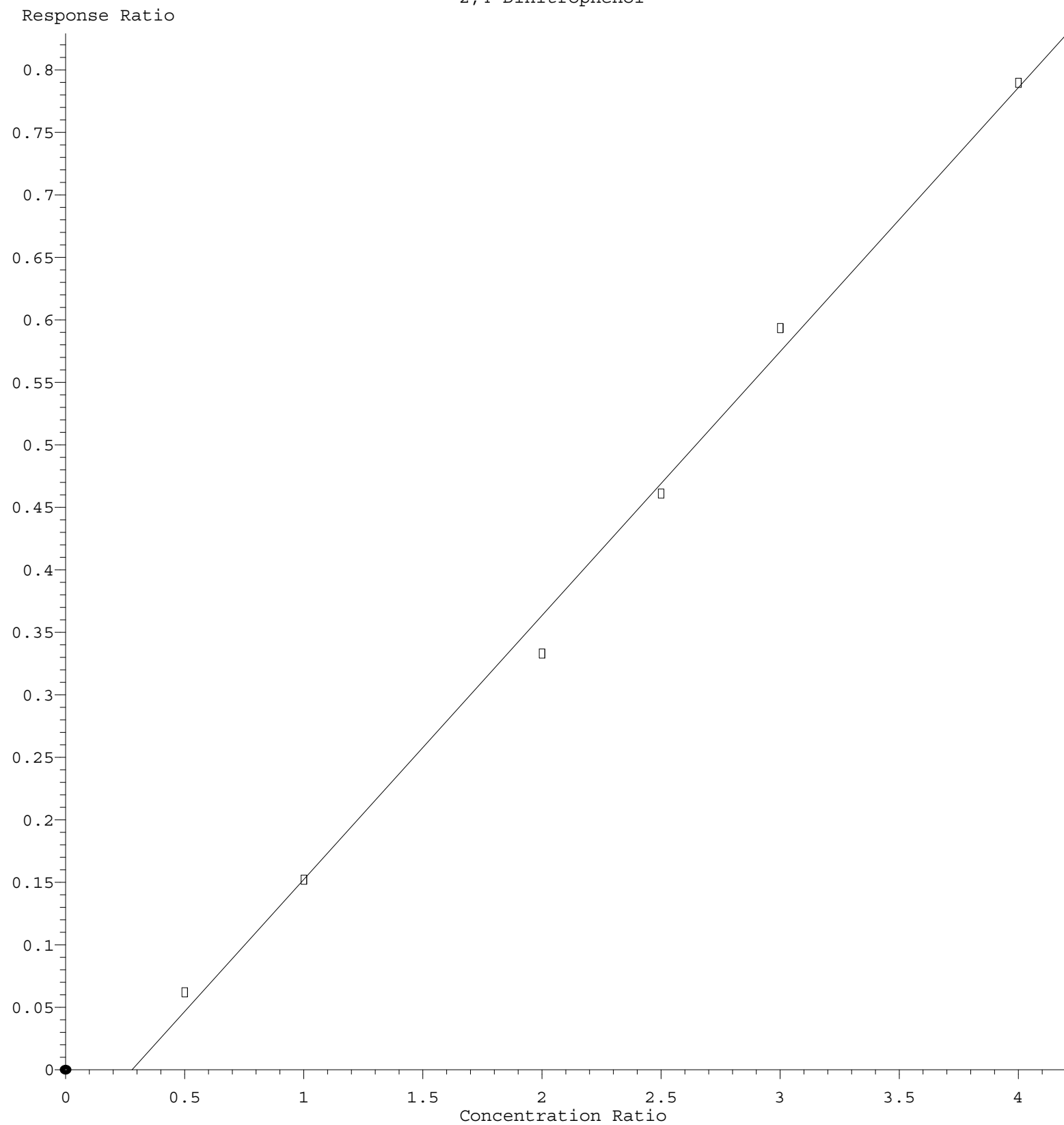
|       |                    |                |       |       |       |       |       |       |       |       |  |
|-------|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 39) I | Acenaphthene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 40)   | 1,2,4,5-Tetrac...  | 0.583          | 0.576 | 0.585 | 0.570 | 0.582 | 0.593 | 0.580 | 0.581 | 1.24  |  |
| 41) P | Hexachlorocycl...  | 0.235          | 0.239 | 0.258 | 0.256 | 0.260 | 0.269 | 0.259 | 0.254 | 4.79  |  |
| 42) S | 2,4,6-Tribromo...  | 0.197          | 0.209 | 0.218 | 0.219 | 0.223 | 0.229 | 0.221 | 0.217 | 4.91  |  |
| 43) C | 2,4,6-Trichlor...  | 0.362          | 0.377 | 0.401 | 0.398 | 0.409 | 0.416 | 0.406 | 0.396 | 4.81  |  |
| 44)   | 2,4,5-Trichlor...  | 0.389          | 0.418 | 0.442 | 0.437 | 0.446 | 0.461 | 0.445 | 0.434 | 5.46  |  |
| 45) S | 2-Fluorobiphenyl   | 1.534          | 1.515 | 1.495 | 1.381 | 1.359 | 1.354 | 1.280 | 1.417 | 6.86  |  |
| 46)   | 1,1'-Biphenyl      | 1.611          | 1.607 | 1.635 | 1.554 | 1.555 | 1.572 | 1.513 | 1.578 | 2.66  |  |
| 47)   | 2-Chloronaphth...  | 1.255          | 1.260 | 1.284 | 1.231 | 1.238 | 1.259 | 1.224 | 1.250 | 1.64  |  |
| 48)   | 2-Nitroaniline     | 0.315          | 0.330 | 0.351 | 0.353 | 0.365 | 0.378 | 0.369 | 0.352 | 6.36  |  |
| 49)   | Acenaphthylene     | 1.849          | 1.892 | 1.913 | 1.849 | 1.853 | 1.886 | 1.812 | 1.865 | 1.82  |  |
| 50)   | Dimethylphthalate  | 1.517          | 1.496 | 1.501 | 1.456 | 1.470 | 1.498 | 1.443 | 1.483 | 1.82  |  |
| 51)   | 2,6-Dinitrotol...  | 0.301          | 0.318 | 0.330 | 0.330 | 0.332 | 0.344 | 0.337 | 0.327 | 4.35  |  |
| 52) C | Acenaphthene       | 1.194          | 1.175 | 1.190 | 1.131 | 1.133 | 1.143 | 1.114 | 1.154 | 2.75  |  |
| 53)   | 3-Nitroaniline     | 0.300          | 0.328 | 0.347 | 0.357 | 0.367 | 0.385 | 0.377 | 0.352 | 8.43  |  |
| 54) P | 2,4-Dinitrophenol  |                | 0.124 | 0.152 | 0.167 | 0.184 | 0.198 | 0.197 | 0.170 | 16.99 |  |
| 55)   | Dibenzofuran       | 1.876          | 1.862 | 1.835 | 1.746 | 1.743 | 1.759 | 1.684 | 1.787 | 4.01  |  |
| 56) P | 4-Nitrophenol      | 0.223          | 0.257 | 0.277 | 0.293 | 0.311 | 0.325 | 0.315 | 0.286 | 12.77 |  |
| 57)   | 2,4-Dinitrotol...  | 0.366          | 0.407 | 0.423 | 0.435 | 0.449 | 0.463 | 0.450 | 0.428 | 7.66  |  |
| 58)   | Fluorene           | 1.509          | 1.485 | 1.451 | 1.343 | 1.319 | 1.311 | 1.246 | 1.381 | 7.28  |  |
| 59)   | 2,3,4,6-Tetrac...  | 0.325          | 0.339 | 0.349 | 0.342 | 0.341 | 0.352 | 0.338 | 0.341 | 2.59  |  |
| 60)   | Diethylphthalate   | 1.557          | 1.555 | 1.548 | 1.500 | 1.521 | 1.555 | 1.492 | 1.533 | 1.83  |  |
| 61)   | 4-Chlorophenyl...  | 0.729          | 0.724 | 0.703 | 0.653 | 0.639 | 0.636 | 0.598 | 0.669 | 7.50  |  |
| 62)   | 4-Nitroaniline     | 0.298          | 0.336 | 0.346 | 0.356 | 0.370 | 0.392 | 0.380 | 0.354 | 8.88  |  |
| 63)   | Azobenzene         | 1.422          | 1.471 | 1.474 | 1.422 | 1.422 | 1.460 | 1.393 | 1.438 | 2.12  |  |
| 64) I | Phenanthrene-d10   | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 65)   | 4,6-Dinitro-2-...  |                | 0.097 | 0.113 | 0.117 | 0.126 | 0.130 | 0.132 | 0.119 | 10.98 |  |
| 66) c | n-Nitrosodiphe...  | 0.615          | 0.620 | 0.638 | 0.595 | 0.600 | 0.599 | 0.587 | 0.608 | 2.91  |  |
| 67)   | 4-Bromophenyl-...  | 0.193          | 0.190 | 0.202 | 0.194 | 0.201 | 0.202 | 0.202 | 0.198 | 2.64  |  |
| 68)   | Hexachlorobenzene  | 0.248          | 0.247 | 0.251 | 0.237 | 0.238 | 0.239 | 0.236 | 0.242 | 2.47  |  |
| 69)   | Atrazine           | 0.189          | 0.186 | 0.180 | 0.171 | 0.154 | 0.144 | 0.128 | 0.165 | 13.96 |  |
| 70) C | Pentachlorophenol  | 0.138          | 0.152 | 0.163 | 0.162 | 0.164 | 0.165 | 0.159 | 0.158 | 6.22  |  |
| 71)   | Phenanthrene       | 1.102          | 1.095 | 1.090 | 1.033 | 1.032 | 1.030 | 1.011 | 1.056 | 3.57  |  |
| 72)   | Anthracene         | 1.062          | 1.072 | 1.078 | 1.029 | 1.031 | 1.038 | 1.010 | 1.046 | 2.41  |  |
| 73)   | Carbazole          | 1.025          | 1.046 | 1.036 | 1.000 | 1.006 | 1.015 | 0.989 | 1.017 | 1.99  |  |
| 74)   | Di-n-butylphth...  | 1.248          | 1.303 | 1.351 | 1.325 | 1.356 | 1.361 | 1.308 | 1.322 | 3.01  |  |
| 75) C | Fluoranthene       | 1.208          | 1.217 | 1.195 | 1.159 | 1.180 | 1.190 | 1.154 | 1.186 | 1.99  |  |
| 76) I | Chrysene-d12       | -----ISTD----- |       |       |       |       |       |       |       |       |  |
| 77)   | Benzidine          | 0.345          | 0.210 | 0.169 | 0.411 | 0.344 | 0.368 | 0.329 | 0.311 | 28.27 |  |
| 78)   | Pyrene             | 1.518          | 1.538 | 1.583 | 1.509 | 1.533 | 1.572 | 1.528 | 1.540 | 1.78  |  |
| 79) S | Terphenyl-d14      | 1.233          | 1.242 | 1.239 | 1.117 | 1.081 | 1.061 | 1.013 | 1.141 | 8.41  |  |
| 80)   | Butylbenzylphth... | 0.575          | 0.618 | 0.686 | 0.695 | 0.730 | 0.751 | 0.739 | 0.685 | 9.62  |  |
| 81)   | Benzo(a)anthra...  | 1.395          | 1.388 | 1.418 | 1.359 | 1.391 | 1.413 | 1.374 | 1.391 | 1.50  |  |
| 82)   | 3,3'-Dichlorob...  | 0.445          | 0.458 | 0.465 | 0.464 | 0.462 | 0.467 | 0.434 | 0.456 | 2.73  |  |
| 83)   | Chrysene           | 1.322          | 1.330 | 1.345 | 1.282 | 1.307 | 1.330 | 1.285 | 1.314 | 1.83  |  |
| 84)   | Bis(2-ethylhex...  | 0.919          | 0.988 | 1.064 | 1.030 | 1.041 | 1.042 | 0.988 | 1.010 | 4.87  |  |
| 85) c | Di-n-octyl pht...  | 1.492          | 1.581 | 1.747 | 1.794 | 1.899 | 1.947 | 1.889 | 1.764 | 9.71  |  |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_M\Methods\  
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|       |                   |                |       |       |       |       |       |       |       |      |
|-------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|------|
| 86) I | Perylene-d12      | -----ISTD----- |       |       |       |       |       |       |       |      |
| 87)   | Indeno(1,2,3-c... | 1.398          | 1.393 | 1.446 | 1.398 | 1.415 | 1.441 | 1.418 | 1.416 | 1.49 |
| 88)   | Benzo(b)fluora... | 1.229          | 1.227 | 1.285 | 1.225 | 1.260 | 1.281 | 1.244 | 1.250 | 2.04 |
| 89)   | Benzo(k)fluora... | 1.223          | 1.221 | 1.211 | 1.175 | 1.160 | 1.165 | 1.162 | 1.188 | 2.44 |
| 90) C | Benzo(a)pyrene    | 1.076          | 1.066 | 1.111 | 1.077 | 1.094 | 1.122 | 1.099 | 1.092 | 1.84 |
| 91)   | Dibenzo(a,h)an... | 1.187          | 1.174 | 1.219 | 1.177 | 1.175 | 1.191 | 1.165 | 1.184 | 1.50 |
| 92)   | Benzo(g,h,i)pe... | 1.188          | 1.171 | 1.210 | 1.190 | 1.200 | 1.234 | 1.212 | 1.201 | 1.70 |

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(#) = Out of Range

## 2,4-Dinitrophenol



Response =  $2.112 \times 10^{-1} \times \text{Amt} - 5.900 \times 10^{-2}$   
Coef of Det ( $r^2$ ) = 0.995744    Curve Fit: Linear  
Method Name: Z:\svoasrv\HPCHEM1\BNA M\Methods\8270-BM020824.M  
Calibration Table Last Updated: Fri Feb 09 02:42:01 2024