

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN020419\  
 Data File : VN053586.D  
 Acq On : 4 Feb 2019 10:09  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Feb 05 01:33:35 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N013019W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Feb 01 09:11:52 2019  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|       | Compound                    | AvqRF | CCRF  | %Dev    | Area% | Dev(min) |
|-------|-----------------------------|-------|-------|---------|-------|----------|
| 1 I   | Pentafluorobenzene          | 1.000 | 1.000 | 0.0     | 96    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.515 | 0.551 | -7.0    | 94    | 0.00     |
| 3 P   | Chloromethane               | 0.594 | 0.565 | 4.9     | 91    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.576 | 0.552 | 4.2#    | 91    | 0.00     |
| 5 T   | Bromomethane                | 0.377 | 0.358 | 5.0     | 93    | 0.00     |
| 6 T   | Chloroethane                | 0.329 | 0.318 | 3.3     | 93    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.781 | 0.759 | 2.8     | 94    | 0.00     |
| 8 T   | Diethyl Ether               | 0.285 | 0.258 | 9.5     | 88    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.483 | 0.475 | 1.7     | 96    | 0.00     |
| 10 T  | Methyl Iodide               | 0.759 | 0.707 | 6.9     | 90    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.030 | 0.027 | 10.0    | 88    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.463 | 0.446 | 3.7#    | 93    | 0.00     |
| 13 T  | Acrolein                    | 0.016 | 0.046 | -187.5# | 339#  | 0.00     |
| 14 T  | Allyl chloride              | 0.737 | 0.703 | 4.6     | 91    | 0.00     |
| 15 T  | Acrylonitrile               | 0.160 | 0.151 | 5.6     | 90    | 0.00     |
| 16 T  | Acetone                     | 0.129 | 0.141 | -9.3    | 113   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.442 | 1.350 | 6.4     | 91    | 0.00     |
| 18 T  | Methyl Acetate              | 0.381 | 0.333 | 12.6    | 88    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.174 | 1.104 | 6.0     | 88    | 0.00     |
| 20 T  | Methylene Chloride          | 0.540 | 0.498 | 7.8     | 94    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.500 | 0.470 | 6.0     | 91    | 0.00     |
| 22 T  | Diisopropyl ether           | 1.366 | 1.345 | 1.5     | 92    | 0.00     |
| 23 T  | Vinyl Acetate               | 0.945 | 0.904 | 4.3     | 87    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 0.911 | 0.864 | 5.2     | 93    | 0.00     |
| 25 T  | 2-Butanone                  | 0.183 | 0.177 | 3.3     | 92    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.696 | 0.669 | 3.9     | 94    | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.555 | 0.529 | 4.7     | 91    | 0.00     |
| 28 T  | Bromochloromethane          | 0.395 | 0.396 | -0.3    | 97    | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.118 | 0.108 | 8.5     | 86    | 0.00     |
| 30 C  | Chloroform                  | 0.903 | 0.854 | 5.4#    | 94    | 0.00     |
| 31 T  | Cyclohexane                 | 0.949 | 0.801 | 15.6    | 92    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.752 | 0.724 | 3.7     | 93    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.502 | 0.491 | 2.2     | 96    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0     | 91    | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.316 | 0.331 | -4.7    | 96    | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.451 | 0.460 | -2.0    | 94    | 0.00     |
| 37 T  | Ethyl Acetate               | 0.252 | 0.240 | 4.8     | 81    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.454 | 0.454 | 0.0     | 93    | 0.00     |
| 39 T  | Methylcyclohexane           | 0.535 | 0.575 | -7.5    | 96    | 0.00     |
| 40 TM | Benzene                     | 1.390 | 1.385 | 0.4     | 92    | 0.00     |
| 41 T  | Methacrylonitrile           | 0.141 | 0.148 | -5.0    | 97    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.413 | 0.410 | 0.7     | 94    | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.486 | 0.440 | 9.5     | 86    | 0.00     |
| 44 TM | Trichloroethene             | 0.396 | 0.393 | 0.8     | 95    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.356 | 0.360 | -1.1#   | 92    | 0.00     |

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|       | Compound                    | AvqRF | CCRF  | %Dev  | Area% | Dev(min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 46 T  | Dibromomethane              | 0.214 | 0.211 | 1.4   | 93    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.446 | 0.451 | -1.1  | 94    | 0.00     |
| 48 T  | Methyl methacrylate         | 0.232 | 0.209 | 9.9   | 83    | 0.00     |
| 49 T  | 1,4-Dioxane                 | 0.003 | 0.003 | 0.0   | 93    | 0.00     |
| 50 S  | Toluene-d8                  | 1.186 | 1.217 | -2.6  | 95    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.239 | 0.234 | 2.1   | 86    | 0.00     |
| 52 CM | Toluene                     | 0.825 | 0.840 | -1.8# | 93    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.446 | 0.454 | -1.8  | 92    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.529 | 0.535 | -1.1  | 92    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.297 | 0.299 | -0.7  | 92    | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.352 | 0.346 | 1.7   | 86    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.508 | 0.499 | 1.8   | 91    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.196 | 0.193 | 1.5   | 84    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.162 | 0.158 | 2.5   | 87    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.335 | 0.347 | -3.6  | 94    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.294 | 0.284 | 3.4   | 90    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.396 | 0.416 | -5.1  | 97    | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 92    | 0.00     |
| 64 T  | Tetrachloroethene           | 0.429 | 0.427 | 0.5   | 94    | 0.00     |
| 65 PM | Chlorobenzene               | 1.062 | 1.042 | 1.9   | 93    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.371 | 0.370 | 0.3   | 93    | 0.00     |
| 67 C  | Ethyl Benzene               | 1.745 | 1.760 | -0.9# | 93    | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.666 | 0.694 | -4.2  | 95    | 0.00     |
| 69 T  | o-Xylene                    | 0.643 | 0.661 | -2.8  | 93    | 0.00     |
| 70 T  | Styrene                     | 1.043 | 1.091 | -4.6  | 94    | 0.00     |
| 71 P  | Bromoform                   | 0.254 | 0.263 | -3.5  | 93    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 94    | 0.00     |
| 73 T  | Isopropylbenzene            | 3.515 | 3.507 | 0.2   | 95    | 0.00     |
| 74 T  | N-amyl acetate              | 0.845 | 0.793 | 6.2   | 88    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 0.841 | 0.758 | 9.9   | 89    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 0.642 | 0.625 | 2.6   | 95    | 0.00     |
| 77 T  | Bromobenzene                | 0.947 | 0.926 | 2.2   | 94    | 0.00     |
| 78 T  | n-propylbenzene             | 4.063 | 4.157 | -2.3  | 97    | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.411 | 2.407 | 0.2   | 96    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 2.915 | 3.043 | -4.4  | 97    | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.228 | 0.217 | 4.8   | 88    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.474 | 2.495 | -0.8  | 97    | 0.00     |
| 83 T  | tert-Butylbenzene           | 2.576 | 2.624 | -1.9  | 97    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 2.970 | 3.093 | -4.1  | 97    | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.506 | 3.621 | -3.3  | 97    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.066 | 3.255 | -6.2  | 98    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.703 | 1.694 | 0.5   | 97    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.685 | 1.655 | 1.8   | 96    | 0.00     |
| 89 T  | n-Butylbenzene              | 2.654 | 2.845 | -7.2  | 100   | 0.00     |

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Max. RRF Dev : 25% Max. Rel. Area : 150%

|      | Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 90 T | Hexachloroethane            | 0.506 | 0.523 | -3.4 | 100   | 0.00     |
| 91 T | 1,2-Dichlorobenzene         | 1.630 | 1.611 | 1.2  | 95    | 0.00     |
| 92 T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.111 | 7.5  | 88    | 0.00     |
| 93 T | 1,2,4-Trichlorobenzene      | 0.935 | 0.987 | -5.6 | 93    | 0.00     |
| 94 T | Hexachlorobutadiene         | 0.582 | 0.624 | -7.2 | 102   | 0.00     |
| 95 T | Naphthalene                 | 1.905 | 1.922 | -0.9 | 84    | 0.00     |
| 96 T | 1,2,3-Trichlorobenzene      | 0.868 | 0.880 | -1.4 | 91    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 6