

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN121018\  
 Data File : VN052741.D  
 Acq On : 10 Dec 2018 9:16  
 Operator : MD\SY  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Dec 11 02:17:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 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   | 100   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.468 | 0.390 | 16.7  | 86    | 0.00     |
| 3 P   | Chloromethane               | 0.618 | 0.492 | 20.4  | 81    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.635 | 0.531 | 16.4# | 85    | 0.00     |
| 5 T   | Bromomethane                | 0.396 | 0.267 | 32.6# | 75    | 0.00     |
| 6 T   | Chloroethane                | 0.385 | 0.332 | 13.8  | 89    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.780 | 0.729 | 6.5   | 95    | 0.00     |
| 8 T   | Diethyl Ether               | 0.288 | 0.272 | 5.6   | 94    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.487 | 0.476 | 2.3   | 100   | 0.00     |
| 10 T  | Methyl Iodide               | 0.648 | 0.484 | 25.3# | 72    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.027 | 0.027 | 0.0   | 98    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.468 | 0.434 | 7.3#  | 94    | 0.00     |
| 13 T  | Acrolein                    | 0.047 | 0.008 | 83.0# | 18#   | 0.00     |
| 14 T  | Allyl chloride              | 0.807 | 0.768 | 4.8   | 92    | 0.00     |
| 15 T  | Acrylonitrile               | 0.173 | 0.158 | 8.7   | 90    | 0.00     |
| 16 T  | Acetone                     | 0.144 | 0.121 | 16.0  | 85    | 0.00     |
| 17 T  | Carbon Disulfide            | 1.474 | 1.183 | 19.7  | 82    | 0.00     |
| 18 T  | Methyl Acetate              | 0.412 | 0.402 | 2.4   | 99    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.246 | 1.223 | 1.8   | 98    | 0.00     |
| 20 T  | Methylene Chloride          | 0.562 | 0.505 | 10.1  | 95    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.500 | 0.471 | 5.8   | 93    | 0.00     |
| 22 T  | Diisopropyl ether           | 1.696 | 1.625 | 4.2   | 95    | 0.00     |
| 23 T  | Vinyl Acetate               | 1.056 | 0.884 | 16.3  | 82    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 0.968 | 0.932 | 3.7   | 96    | 0.00     |
| 25 T  | 2-Butanone                  | 0.204 | 0.180 | 11.8  | 87    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.670 | 0.707 | -5.5  | 106   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.583 | 0.560 | 3.9   | 97    | 0.00     |
| 28 T  | Bromochloromethane          | 0.442 | 0.424 | 4.1   | 96    | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.131 | 0.117 | 10.7  | 88    | 0.00     |
| 30 C  | Chloroform                  | 0.966 | 0.913 | 5.5#  | 98    | 0.00     |
| 31 T  | Cyclohexane                 | 1.083 | 0.834 | 23.0  | 90    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.765 | 0.758 | 0.9   | 99    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.544 | 0.536 | 1.5   | 97    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 96    | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.308 | 0.261 | 15.3  | 81    | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.472 | 0.460 | 2.5   | 95    | 0.00     |
| 37 T  | Ethyl Acetate               | 0.288 | 0.255 | 11.5  | 87    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.427 | 0.435 | -1.9  | 99    | 0.00     |
| 39 T  | Methylcyclohexane           | 0.574 | 0.560 | 2.4   | 94    | 0.00     |
| 40 TM | Benzene                     | 1.407 | 1.378 | 2.1   | 94    | 0.00     |
| 41 T  | Methacrylonitrile           | 0.158 | 0.143 | 9.5   | 83    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.426 | 0.420 | 1.4   | 95    | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.488 | 0.472 | 3.3   | 94    | 0.00     |
| 44 TM | Trichloroethene             | 0.360 | 0.377 | -4.7  | 102   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.374 | 0.371 | 0.8#  | 96    | 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              | 0.207 | 0.211 | -1.9  | 98    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.450 | 0.463 | -2.9  | 99    | 0.00     |
| 48 T  | Methyl methacrylate         | 0.254 | 0.240 | 5.5   | 91    | 0.00     |
| 49 T  | 1,4-Dioxane                 | 0.003 | 0.003 | 0.0   | 90    | 0.00     |
| 50 S  | Toluene-d8                  | 1.200 | 1.245 | -3.8  | 98    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.274 | 0.262 | 4.4   | 90    | 0.00     |
| 52 CM | Toluene                     | 0.836 | 0.847 | -1.3# | 96    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.433 | 0.464 | -7.2  | 100   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.519 | 0.553 | -6.6  | 100   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.294 | 0.299 | -1.7  | 98    | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.362 | 0.380 | -5.0  | 97    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.519 | 0.517 | 0.4   | 96    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.213 | 0.220 | -3.3  | 97    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.184 | 0.188 | -2.2  | 94    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.319 | 0.342 | -7.2  | 101   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.292 | 0.295 | -1.0  | 97    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.403 | 0.442 | -9.7  | 103   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 96    | 0.00     |
| 64 T  | Tetrachloroethene           | 0.388 | 0.470 | -21.1 | 119   | 0.00     |
| 65 PM | Chlorobenzene               | 1.031 | 1.072 | -4.0  | 99    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.358 | 0.380 | -6.1  | 101   | 0.00     |
| 67 C  | Ethyl Benzene               | 1.805 | 1.874 | -3.8# | 98    | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.672 | 0.707 | -5.2  | 98    | 0.00     |
| 69 T  | o-Xylene                    | 0.653 | 0.683 | -4.6  | 98    | 0.00     |
| 70 T  | Styrene                     | 1.040 | 1.142 | -9.8  | 100   | 0.00     |
| 71 P  | Bromoform                   | 0.237 | 0.257 | -8.4  | 101   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 102   | 0.00     |
| 73 T  | Isopropylbenzene            | 3.923 | 3.759 | 4.2   | 99    | 0.00     |
| 74 T  | N-amyl acetate              | 0.991 | 0.978 | 1.3   | 99    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 0.892 | 0.744 | 16.6  | 88    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 0.771 | 0.656 | 14.9  | 92    | 0.00     |
| 77 T  | Bromobenzene                | 0.970 | 0.954 | 1.6   | 103   | 0.00     |
| 78 T  | n-propylbenzene             | 4.456 | 4.407 | 1.1   | 100   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.654 | 2.532 | 4.6   | 99    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.129 | 3.081 | 1.5   | 101   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.231 | 0.225 | 2.6   | 98    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.675 | 2.615 | 2.2   | 100   | 0.00     |
| 83 T  | tert-Butylbenzene           | 2.789 | 2.717 | 2.6   | 102   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.135 | 3.133 | 0.1   | 101   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.799 | 3.761 | 1.0   | 102   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.236 | 3.291 | -1.7  | 104   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.696 | 1.726 | -1.8  | 106   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.671 | 1.709 | -2.3  | 106   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.691 | 2.900 | -7.8  | 106   | 0.00     |

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|------|-----------------------------|-------|-------|--------|-------|----------|
| 90 T | Hexachloroethane            | 0.548 | 0.536 | 2.2    | 102   | 0.00     |
| 91 T | 1,2-Dichlorobenzene         | 1.620 | 1.639 | -1.2   | 104   | 0.00     |
| 92 T | 1,2-Dibromo-3-Chloropropane | 0.128 | 0.120 | 6.3    | 95    | 0.00     |
| 93 T | 1,2,4-Trichlorobenzene      | 0.766 | 0.992 | -29.5# | 121   | 0.00     |
| 94 T | Hexachlorobutadiene         | 0.521 | 0.520 | 0.2    | 108   | 0.00     |
| 95 T | Naphthalene                 | 1.582 | 1.953 | -23.5  | 114   | 0.00     |
| 96 T | 1,2,3-Trichlorobenzene      | 0.716 | 0.879 | -22.8  | 118   | 0.00     |

(#) = Out of Range

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