

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN052319\  
 Data File : VN055751.D  
 Acq On : 23 May 2019 14:03  
 Operator : JC/SP  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN052319

Quant Time: May 24 07:02:59 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N052319W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 24 06:41:54 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  | 106   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.337 | 0.307 | 8.9  | 103   | 0.00     |
| 3 P   | Chloromethane               | 0.471 | 0.425 | 9.8  | 99    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.503 | 0.456 | 9.3# | 100   | 0.00     |
| 5 T   | Bromomethane                | 0.315 | 0.316 | -0.3 | 103   | 0.00     |
| 6 T   | Chloroethane                | 0.303 | 0.285 | 5.9  | 100   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.659 | 0.617 | 6.4  | 102   | 0.00     |
| 8 T   | Diethyl Ether               | 0.295 | 0.272 | 7.8  | 101   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.412 | 0.397 | 3.6  | 106   | 0.00     |
| 10 T  | Methyl Iodide               | 0.602 | 0.586 | 2.7  | 99    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.099 | 0.095 | 4.0  | 99    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.425 | 0.396 | 6.8# | 102   | 0.00     |
| 13 T  | Acrolein                    | 0.071 | 0.063 | 11.3 | 98    | 0.00     |
| 14 T  | Allyl chloride              | 0.729 | 0.687 | 5.8  | 103   | 0.00     |
| 15 T  | Acrylonitrile               | 0.227 | 0.210 | 7.5  | 100   | 0.00     |
| 16 T  | Acetone                     | 0.227 | 0.219 | 3.5  | 104   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.208 | 1.092 | 9.6  | 101   | 0.00     |
| 18 T  | Methyl Acetate              | 0.538 | 0.438 | 18.6 | 100   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.418 | 1.317 | 7.1  | 101   | 0.00     |
| 20 T  | Methylene Chloride          | 0.492 | 0.444 | 9.8  | 101   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.457 | 0.425 | 7.0  | 102   | 0.00     |
| 22 T  | Diisopropyl ether           | 1.418 | 1.314 | 7.3  | 101   | 0.00     |
| 23 T  | Vinyl Acetate               | 1.216 | 1.148 | 5.6  | 101   | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 0.826 | 0.758 | 8.2  | 101   | 0.00     |
| 25 T  | 2-Butanone                  | 0.317 | 0.301 | 5.0  | 102   | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.714 | 0.678 | 5.0  | 107   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.533 | 0.499 | 6.4  | 101   | 0.00     |
| 28 T  | Bromochloromethane          | 0.393 | 0.377 | 4.1  | 102   | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.201 | 0.185 | 8.0  | 99    | 0.00     |
| 30 C  | Chloroform                  | 0.823 | 0.769 | 6.6# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 0.775 | 0.716 | 7.6  | 102   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.735 | 0.689 | 6.3  | 103   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.516 | 0.501 | 2.9  | 102   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0  | 104   | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.316 | 0.317 | -0.3 | 103   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.436 | 0.415 | 4.8  | 103   | 0.00     |
| 37 T  | Ethyl Acetate               | 0.421 | 0.407 | 3.3  | 101   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.454 | 0.427 | 5.9  | 101   | 0.00     |
| 39 T  | Methylcyclohexane           | 0.540 | 0.537 | 0.6  | 107   | 0.00     |
| 40 TM | Benzene                     | 1.313 | 1.255 | 4.4  | 101   | 0.00     |
| 41 T  | Methacrylonitrile           | 0.213 | 0.178 | 16.4 | 90    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.429 | 0.409 | 4.7  | 101   | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.708 | 0.666 | 5.9  | 100   | 0.00     |
| 44 TM | Trichloroethene             | 0.366 | 0.363 | 0.8  | 104   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.342 | 0.328 | 4.1# | 101   | 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                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|-------|-----------------------------|-------|-------|------|-------|----------|
| 46 T  | Dibromomethane              | 0.224 | 0.218 | 2.7  | 101   | 0.00     |
| 47 T  | Bromodichloromethane        | 0.460 | 0.441 | 4.1  | 101   | 0.00     |
| 48 T  | Methyl methacrylate         | 0.326 | 0.325 | 0.3  | 103   | 0.00     |
| 49 T  | 1,4-Dioxane                 | 0.007 | 0.007 | 0.0  | 104   | 0.00     |
| 50 S  | Toluene-d8                  | 1.213 | 1.208 | 0.4  | 103   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.418 | 0.399 | 4.5  | 98    | 0.00     |
| 52 CM | Toluene                     | 0.826 | 0.803 | 2.8# | 102   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.491 | 0.488 | 0.6  | 101   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.544 | 0.536 | 1.5  | 102   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.331 | 0.318 | 3.9  | 100   | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.511 | 0.500 | 2.2  | 99    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.538 | 0.517 | 3.9  | 101   | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.195 | 0.191 | 2.1  | 99    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.296 | 0.292 | 1.4  | 100   | 0.00     |
| 60 T  | Dibromochloromethane        | 0.385 | 0.379 | 1.6  | 102   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.343 | 0.334 | 2.6  | 101   | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.416 | 0.421 | -1.2 | 103   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 103   | 0.00     |
| 64 T  | Tetrachloroethene           | 0.422 | 0.406 | 3.8  | 104   | 0.00     |
| 65 PM | Chlorobenzene               | 1.001 | 0.975 | 2.6  | 102   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.399 | 0.382 | 4.3  | 102   | 0.00     |
| 67 C  | Ethyl Benzene               | 1.795 | 1.740 | 3.1# | 102   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.679 | 0.668 | 1.6  | 103   | 0.00     |
| 69 T  | o-Xylene                    | 0.673 | 0.655 | 2.7  | 103   | 0.00     |
| 70 T  | Styrene                     | 1.090 | 1.097 | -0.6 | 102   | 0.00     |
| 71 P  | Bromoform                   | 0.341 | 0.341 | 0.0  | 101   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0  | 104   | 0.00     |
| 73 T  | Isopropylbenzene            | 4.186 | 3.643 | 13.0 | 104   | 0.00     |
| 74 T  | N-amyl acetate              | 1.536 | 1.331 | 13.3 | 98    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.241 | 1.058 | 14.7 | 99    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 0.988 | 0.867 | 12.2 | 99    | 0.00     |
| 77 T  | Bromobenzene                | 1.067 | 0.948 | 11.2 | 100   | 0.00     |
| 78 T  | n-propylbenzene             | 4.346 | 3.920 | 9.8  | 103   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.693 | 2.349 | 12.8 | 101   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.474 | 2.994 | 13.8 | 101   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.372 | 0.345 | 7.3  | 100   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.554 | 2.327 | 8.9  | 101   | 0.00     |
| 83 T  | tert-Butylbenzene           | 3.078 | 2.624 | 14.7 | 102   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.395 | 2.984 | 12.1 | 101   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.826 | 3.458 | 9.6  | 104   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.472 | 3.205 | 7.7  | 104   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.689 | 1.610 | 4.7  | 103   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.606 | 1.557 | 3.1  | 104   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.661 | 2.587 | 2.8  | 106   | 0.00     |

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|      | Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 90 T | Hexachloroethane            | 0.661 | 0.595 | 10.0 | 102   | 0.00     |
| 91 T | 1,2-Dichlorobenzene         | 1.686 | 1.557 | 7.7  | 101   | 0.00     |
| 92 T | 1,2-Dibromo-3-Chloropropane | 0.222 | 0.197 | 11.3 | 99    | 0.00     |
| 93 T | 1,2,4-Trichlorobenzene      | 0.847 | 0.930 | -9.8 | 112   | 0.00     |
| 94 T | Hexachlorobutadiene         | 0.669 | 0.649 | 3.0  | 113   | 0.00     |
| 95 T | Naphthalene                 | 2.313 | 2.370 | -2.5 | 102   | 0.00     |
| 96 T | 1,2,3-Trichlorobenzene      | 0.891 | 0.942 | -5.7 | 109   | 0.00     |

(#) = Out of Range

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