

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071718\  
 Data File : VN049845.D  
 Acq On : 17 Jul 2018 14:27  
 Operator : MD\SY  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN071718

Quant Time: Jul 17 16:43:42 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N071718W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 17 13:20:18 2018  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound                    | AvqRF | CCRF  | %Dev  | Area% | Dev(min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 1 I   | Pentafluorobenzene          | 1.000 | 1.000 | 0.0   | 117   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.515 | 0.436 | 15.3  | 113   | 0.00     |
| 3 P   | Chloromethane               | 0.663 | 0.565 | 14.8  | 110   | 0.00     |
| 4 C   | Vinyl Chloride              | 0.715 | 0.620 | 13.3# | 108   | 0.00     |
| 5 T   | Bromomethane                | 0.452 | 0.355 | 21.5# | 105   | 0.00     |
| 6 T   | Chloroethane                | 0.454 | 0.386 | 15.0  | 106   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.962 | 0.829 | 13.8  | 109   | 0.00     |
| 8 T   | Diethyl Ether               | 0.344 | 0.311 | 9.6   | 112   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.577 | 0.518 | 10.2  | 113   | 0.00     |
| 10 T  | Methyl Iodide               | 0.722 | 0.661 | 8.4   | 99    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.053 | 0.052 | 1.9   | 113   | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.522 | 0.464 | 11.1# | 109   | 0.00     |
| 13 T  | Acrolein                    | 0.041 | 0.033 | 19.5  | 85    | 0.00     |
| 14 T  | Allyl chloride              | 0.828 | 0.773 | 6.6   | 111   | 0.00     |
| 15 T  | Acrylonitrile               | 0.224 | 0.215 | 4.0   | 110   | 0.00     |
| 16 T  | Acetone                     | 0.187 | 0.180 | 3.7   | 123   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.588 | 1.357 | 14.5  | 107   | 0.00     |
| 18 T  | Methyl Acetate              | 0.698 | 0.541 | 22.5# | 110   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.457 | 1.466 | -0.6  | 113   | 0.00     |
| 20 T  | Methylene Chloride          | 0.642 | 0.539 | 16.0  | 108   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.551 | 0.510 | 7.4   | 110   | 0.00     |
| 22 T  | Diisopropyl ether           | 1.655 | 1.645 | 0.6   | 110   | 0.00     |
| 23 T  | Vinyl Acetate               | 1.218 | 1.231 | -1.1  | 111   | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 1.061 | 0.945 | 10.9  | 108   | 0.00     |
| 25 T  | 2-Butanone                  | 0.276 | 0.275 | 0.4   | 116   | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.808 | 0.806 | 0.2   | 120   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.618 | 0.578 | 6.5   | 109   | 0.00     |
| 28 T  | Bromochloromethane          | 0.493 | 0.476 | 3.4   | 109   | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.175 | 0.174 | 0.6   | 112   | 0.00     |
| 30 C  | Chloroform                  | 1.095 | 0.981 | 10.4# | 108   | 0.00     |
| 31 T  | Cyclohexane                 | 1.009 | 0.846 | 16.2  | 113   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.930 | 0.847 | 8.9   | 108   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.670 | 0.657 | 1.9   | 111   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 115   | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.397 | 0.412 | -3.8  | 113   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.529 | 0.522 | 1.3   | 111   | 0.00     |
| 37 T  | Ethyl Acetate               | 0.395 | 0.399 | -1.0  | 110   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.557 | 0.527 | 5.4   | 109   | 0.00     |
| 39 T  | Methylcyclohexane           | 0.545 | 0.592 | -8.6  | 118   | 0.00     |
| 40 TM | Benzene                     | 1.604 | 1.552 | 3.2   | 108   | 0.00     |
| 41 T  | Methacrylonitrile           | 0.203 | 0.205 | -1.0  | 105   | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.545 | 0.508 | 6.8   | 107   | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.671 | 0.701 | -4.5  | 114   | 0.00     |
| 44 TM | Trichloroethene             | 0.422 | 0.405 | 4.0   | 109   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.427 | 0.407 | 4.7#  | 109   | 0.00     |

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound                    | AvqRF | CCRF  | %Dev  | Area% | Dev(min) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 46 T  | Dibromomethane              | 0.273 | 0.258 | 5.5   | 107   | 0.00     |
| 47 T  | Bromodichloromethane        | 0.554 | 0.534 | 3.6   | 108   | 0.00     |
| 48 T  | Methyl methacrylate         | 0.333 | 0.350 | -5.1  | 114   | 0.00     |
| 49 T  | 1,4-Dioxane                 | 0.005 | 0.005 | 0.0   | 112   | 0.00     |
| 50 S  | Toluene-d8                  | 1.456 | 1.556 | -6.9  | 115   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.395 | 0.416 | -5.3  | 111   | 0.00     |
| 52 CM | Toluene                     | 0.961 | 0.979 | -1.9# | 109   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.541 | 0.575 | -6.3  | 113   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.607 | 0.630 | -3.8  | 111   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.394 | 0.378 | 4.1   | 109   | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.478 | 0.531 | -11.1 | 112   | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.639 | 0.627 | 1.9   | 109   | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.225 | 0.241 | -7.1  | 105   | 0.00     |
| 59 T  | 2-Hexanone                  | 0.271 | 0.303 | -11.8 | 115   | 0.00     |
| 60 T  | Dibromochloromethane        | 0.439 | 0.426 | 3.0   | 108   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.387 | 0.384 | 0.8   | 110   | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.488 | 0.547 | -12.1 | 119   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 115   | 0.00     |
| 64 T  | Tetrachloroethene           | 0.425 | 0.405 | 4.7   | 111   | 0.00     |
| 65 PM | Chlorobenzene               | 1.185 | 1.153 | 2.7   | 110   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.455 | 0.435 | 4.4   | 109   | 0.00     |
| 67 C  | Ethyl Benzene               | 1.906 | 2.025 | -6.2# | 112   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.723 | 0.781 | -8.0  | 112   | 0.00     |
| 69 T  | o-Xylene                    | 0.689 | 0.747 | -8.4  | 112   | 0.00     |
| 70 T  | Styrene                     | 1.118 | 1.247 | -11.5 | 112   | 0.00     |
| 71 P  | Bromoform                   | 0.351 | 0.349 | 0.6   | 110   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 117   | 0.00     |
| 73 T  | Isopropylbenzene            | 3.621 | 3.669 | -1.3  | 114   | 0.00     |
| 74 T  | N-amyl acetate              | 1.196 | 1.215 | -1.6  | 113   | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.161 | 1.030 | 11.3  | 109   | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 0.978 | 0.843 | 13.8  | 110   | 0.00     |
| 77 T  | Bromobenzene                | 0.992 | 0.939 | 5.3   | 112   | 0.00     |
| 78 T  | n-propylbenzene             | 4.074 | 4.290 | -5.3  | 116   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.515 | 2.505 | 0.4   | 113   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 2.837 | 3.043 | -7.3  | 116   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.299 | 0.315 | -5.4  | 116   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.485 | 2.547 | -2.5  | 114   | 0.00     |
| 83 T  | tert-Butylbenzene           | 2.487 | 2.603 | -4.7  | 114   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 2.893 | 3.103 | -7.3  | 115   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.346 | 3.572 | -6.8  | 118   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 2.829 | 3.138 | -10.9 | 119   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.706 | 1.691 | 0.9   | 115   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.676 | 1.666 | 0.6   | 116   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.320 | 2.654 | -14.4 | 123   | 0.00     |

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|      | Compound                    | AvgRF | CCRF  | %Dev   | Area% | Dev(min) |
|------|-----------------------------|-------|-------|--------|-------|----------|
| 90 T | Hexachloroethane            | 0.635 | 0.574 | 9.6    | 113   | 0.00     |
| 91 T | 1,2-Dichlorobenzene         | 1.735 | 1.661 | 4.3    | 113   | 0.00     |
| 92 T | 1,2-Dibromo-3-Chloropropane | 0.195 | 0.173 | 11.3   | 111   | 0.00     |
| 93 T | 1,2,4-Trichlorobenzene      | 0.772 | 0.927 | -20.1# | 123   | 0.00     |
| 94 T | Hexachlorobutadiene         | 0.542 | 0.539 | 0.6    | 122   | 0.00     |
| 95 T | Naphthalene                 | 1.844 | 2.236 | -21.3# | 120   | 0.00     |
| 96 T | 1,2,3-Trichlorobenzene      | 0.817 | 0.921 | -12.7  | 120   | 0.00     |

(#) = Out of Range

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