

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN052219\  
 Data File : VN055728.D  
 Acq On : 22 May 2019 19:27  
 Operator : JC/SP  
 Sample : VSTDICV020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN052219

Quant Time: May 23 06:27:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N052219W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu May 23 05:54:54 2019  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|---------|---------|-------|-------|----------|
| 1 I  | Bromochloromethane          | 30.000  | 30.000  | 0.0   | 100   | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 20.000  | 19.194  | 4.0   | 97    | 0.00     |
| 3 M  | Chloromethane               | 20.000  | 19.962  | 0.2   | 98    | 0.00     |
| 4 M  | Vinyl Chloride              | 20.000  | 20.181  | -0.9  | 100   | 0.00     |
| 5 M  | Bromomethane                | 20.000  | 23.689  | -18.4 | 110   | 0.00     |
| 6 M  | Chloroethane                | 20.000  | 21.113  | -5.6  | 103   | 0.00     |
| 7 M  | Trichlorofluoromethane      | 20.000  | 19.968  | 0.2   | 100   | 0.00     |
| 8 T  | Diethyl Ether               | 20.000  | 20.794  | -4.0  | 104   | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 20.000  | 19.622  | 1.9   | 98    | 0.00     |
| 10 M | 1,1-Dichloroethene          | 20.000  | 20.296  | -1.5  | 101   | 0.00     |
| 11   | Methyl Iodide               | 20.000  | 18.384  | 8.1   | 94    | 0.00     |
| 12   | Methyl Acetate              | 20.000  | 19.621  | 1.9   | 99    | 0.00     |
| 13 M | Acrolein                    | 100.000 | 96.182  | 3.8   | 100   | 0.00     |
| 14 M | Acrylonitrile               | 100.000 | 100.464 | -0.5  | 99    | 0.00     |
| 15 M | Acetone                     | 100.000 | 94.620  | 5.4   | 89    | 0.00     |
| 16 M | Carbon Disulfide            | 20.000  | 20.644  | -3.2  | 103   | 0.00     |
| 17   | Allyl chloride              | 20.000  | 20.212  | -1.1  | 101   | 0.00     |
| 18 M | Methylene Chloride          | 20.000  | 20.433  | -2.2  | 102   | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 20.000  | 20.137  | -0.7  | 99    | 0.00     |
| 20 T | Diisopropyl ether           | 20.000  | 19.956  | 0.2   | 100   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 20.000  | 20.277  | -1.4  | 100   | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 20.000  | 20.201  | -1.0  | 101   | 0.00     |
| 23 M | tert-Butyl Alcohol          | 100.000 | 94.358  | 5.6   | 93    | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 20.000  | 20.044  | -0.2  | 99    | 0.00     |
| 25 M | Chloroform                  | 20.000  | 20.244  | -1.2  | 101   | 0.00     |
| 26   | Cyclohexane                 | 20.000  | 19.889  | 0.6   | 100   | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 30.000  | 29.680  | 1.1   | 99    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 30.000  | 30.000  | 0.0   | 99    | 0.00     |
| 29   | 1,1-Dichloropropene         | 20.000  | 20.865  | -4.3  | 103   | 0.00     |
| 30 M | 2-Butanone                  | 100.000 | 99.853  | 0.1   | 96    | 0.00     |
| 31   | 2,2-Dichloropropane         | 20.000  | 19.657  | 1.7   | 94    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 20.000  | 20.329  | -1.6  | 100   | 0.00     |
| 33 M | Carbon Tetrachloride        | 20.000  | 20.443  | -2.2  | 100   | 0.00     |
| 34 M | Benzene                     | 20.000  | 20.549  | -2.7  | 101   | 0.00     |
| 35   | Methacrylonitrile           | 20.000  | 19.951  | 0.2   | 100   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 20.000  | 20.581  | -2.9  | 101   | 0.00     |
| 37 M | Trichloroethene             | 20.000  | 20.058  | -0.3  | 99    | 0.00     |
| 38   | Methylcyclohexane           | 20.000  | 19.985  | 0.1   | 100   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 20.000  | 20.692  | -3.5  | 102   | 0.00     |
| 40   | Dibromomethane              | 20.000  | 21.225  | -6.1  | 106   | 0.00     |
| 41 M | Bromodichloromethane        | 20.000  | 20.365  | -1.8  | 100   | 0.00     |
| 42 M | Vinyl Acetate               | 100.000 | 102.204 | -2.2  | 99    | 0.00     |
| 43   | Ethyl Acetate               | 20.000  | 20.194  | -1.0  | 97    | 0.00     |
| 44   | Isopropyl Acetate           | 20.000  | 20.151  | -0.8  | 100   | 0.00     |
| 45 T | 1,4-Dioxane                 | 400.000 | 400.270 | -0.1  | 99    | 0.00     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N052219W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu May 23 05:54:54 2019  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|-----------------------------|---------|---------|------|-------|----------|
| 46   | Methyl methacrylate         | 20.000  | 19.935  | 0.3  | 98    | 0.00     |
| 47   | n-amyl Acetate              | 20.000  | 19.839  | 0.8  | 98    | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 20.000  | 20.139  | -0.7 | 101   | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 20.000  | 20.382  | -1.9 | 101   | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 20.000  | 20.633  | -3.2 | 101   | 0.00     |
| 51   | Ethyl methacrylate          | 20.000  | 20.436  | -2.2 | 101   | 0.00     |
| 52   | 1,3-Dichloropropane         | 20.000  | 20.184  | -0.9 | 98    | 0.00     |
| 53 M | Dibromochloromethane        | 20.000  | 19.990  | 0.1  | 100   | 0.00     |
| 54 M | 1,2-Dibromoethane           | 20.000  | 20.179  | -0.9 | 100   | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 100.000 | 93.729  | 6.3  | 95    | 0.00     |
| 56 M | Bromoform                   | 20.000  | 19.398  | 3.0  | 96    | 0.00     |
| 57 I | Chlorobenzene-d5            | 30.000  | 30.000  | 0.0  | 100   | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 100.000 | 102.671 | -2.7 | 99    | 0.00     |
| 59 M | 2-Hexanone                  | 100.000 | 99.204  | 0.8  | 97    | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 30.000  | 29.244  | 2.5  | 98    | 0.00     |
| 61 M | Tetrachloroethene           | 20.000  | 20.152  | -0.8 | 96    | 0.00     |
| 62 M | Toluene                     | 20.000  | 20.921  | -4.6 | 102   | 0.00     |
| 63 S | Toluene-d8                  | 30.000  | 30.496  | -1.7 | 100   | 0.00     |
| 64 M | Chlorobenzene               | 20.000  | 20.651  | -3.3 | 101   | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 20.000  | 20.314  | -1.6 | 99    | 0.00     |
| 66 M | Ethyl Benzene               | 20.000  | 20.578  | -2.9 | 100   | 0.00     |
| 67 M | m/p-Xylenes                 | 40.000  | 40.544  | -1.4 | 99    | 0.00     |
| 68 M | o-Xylene                    | 20.000  | 20.228  | -1.1 | 98    | 0.00     |
| 69 M | Styrene                     | 20.000  | 20.141  | -0.7 | 100   | 0.00     |
| 70   | Isopropylbenzene            | 20.000  | 20.611  | -3.1 | 100   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 20.000  | 20.589  | -2.9 | 99    | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 20.000  | 21.423  | -7.1 | 101   | 0.00     |
| 73   | Bromobenzene                | 20.000  | 19.543  | 2.3  | 97    | 0.00     |
| 74   | n-propylbenzene             | 20.000  | 20.231  | -1.2 | 100   | 0.00     |
| 75   | 2-Chlorotoluene             | 20.000  | 20.330  | -1.6 | 99    | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 20.000  | 20.360  | -1.8 | 99    | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 20.000  | 19.140  | 4.3  | 98    | 0.00     |
| 78   | 4-Chlorotoluene             | 20.000  | 20.029  | -0.1 | 100   | 0.00     |
| 79   | tert-butylbenzene           | 20.000  | 20.420  | -2.1 | 98    | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 20.000  | 20.098  | -0.5 | 99    | 0.00     |
| 81   | sec-Butylbenzene            | 20.000  | 20.458  | -2.3 | 100   | 0.00     |
| 82   | p-Isopropyltoluene          | 20.000  | 19.950  | 0.3  | 98    | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 20.000  | 19.438  | 2.8  | 98    | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 20.000  | 18.907  | 5.5  | 97    | 0.00     |
| 85   | n-Butylbenzene              | 20.000  | 19.406  | 3.0  | 101   | 0.00     |
| 86 T | Hexachloroethane            | 20.000  | 20.191  | -1.0 | 99    | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 20.000  | 19.440  | 2.8  | 96    | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 20.000  | 19.521  | 2.4  | 96    | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 20.000  | 17.298  | 13.5 | 100   | 0.00     |
| 90   | Hexachlorobutadiene         | 20.000  | 18.850  | 5.7  | 92    | 0.00     |

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QLast Update : Thu May 23 05:54:54 2019  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound               | Amount | Calc.  | %Dev | Area% | Dev(min) |
|------|------------------------|--------|--------|------|-------|----------|
| 91 M | Naphthalene            | 20.000 | 18.543 | 7.3  | 104   | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 20.000 | 18.240 | 8.8  | 98    | 0.00     |

(#) = Out of Range

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