

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN100918\  
 Data File : VN051743.D  
 Acq On : 9 Oct 2018 11:09  
 Operator : MD\SY  
 Sample : VSTDCCC020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC020

Quant Time: Oct 10 05:32:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N100518W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 05 11:11:26 2018  
 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   | 110   | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 20.000  | 20.965  | -4.8  | 93    | 0.00     |
| 3 M  | Chloromethane               | 20.000  | 18.387  | 8.1   | 89    | 0.00     |
| 4 M  | Vinyl Chloride              | 20.000  | 18.840  | 5.8   | 98    | 0.00     |
| 5 M  | Bromomethane                | 20.000  | 18.835  | 5.8   | 104   | -0.03    |
| 6 M  | Chloroethane                | 20.000  | 19.895  | 0.5   | 103   | -0.02    |
| 7 M  | Trichlorofluoromethane      | 20.000  | 23.249  | -16.2 | 127   | -0.02    |
| 8 T  | Diethyl Ether               | 20.000  | 19.884  | 0.6   | 101   | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 20.000  | 20.732  | -3.7  | 104   | 0.00     |
| 10 M | 1,1-Dichloroethene          | 20.000  | 19.969  | 0.2   | 101   | 0.00     |
| 11   | Methyl Iodide               | 20.000  | 21.311  | -6.6  | 124   | 0.00     |
| 12   | Methyl Acetate              | 20.000  | 22.125  | -10.6 | 119   | 0.00     |
| 13 M | Acrolein                    | 100.000 | 118.654 | -18.7 | 131   | 0.00     |
| 14 M | Acrylonitrile               | 100.000 | 98.564  | 1.4   | 109   | 0.00     |
| 15 M | Acetone                     | 100.000 | 109.321 | -9.3  | 116   | 0.00     |
| 16 M | Carbon Disulfide            | 20.000  | 18.394  | 8.0   | 94    | 0.00     |
| 17   | Allyl chloride              | 20.000  | 19.029  | 4.9   | 98    | 0.00     |
| 18 M | Methylene Chloride          | 20.000  | 20.312  | -1.6  | 107   | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 20.000  | 19.552  | 2.2   | 104   | 0.00     |
| 20 T | Diisopropyl ether           | 20.000  | 18.555  | 7.2   | 101   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 20.000  | 19.216  | 3.9   | 103   | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 20.000  | 19.683  | 1.6   | 107   | 0.00     |
| 23 M | tert-Butyl Alcohol          | 100.000 | 113.122 | -13.1 | 116   | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 20.000  | 19.844  | 0.8   | 105   | 0.00     |
| 25 M | Chloroform                  | 20.000  | 19.475  | 2.6   | 106   | 0.00     |
| 26   | Cyclohexane                 | 20.000  | 19.127  | 4.4   | 102   | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 30.000  | 29.807  | 0.6   | 108   | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 30.000  | 30.000  | 0.0   | 107   | 0.00     |
| 29   | 1,1-Dichloropropene         | 20.000  | 19.580  | 2.1   | 105   | 0.00     |
| 30 M | 2-Butanone                  | 100.000 | 107.610 | -7.6  | 115   | 0.00     |
| 31   | 2,2-Dichloropropane         | 20.000  | 20.326  | -1.6  | 104   | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 20.000  | 19.458  | 2.7   | 105   | 0.00     |
| 33 M | Carbon Tetrachloride        | 20.000  | 19.270  | 3.7   | 103   | 0.00     |
| 34 M | Benzene                     | 20.000  | 19.234  | 3.8   | 106   | 0.00     |
| 35   | Methacrylonitrile           | 20.000  | 19.984  | 0.1   | 114   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 20.000  | 19.633  | 1.8   | 108   | 0.00     |
| 37 M | Trichloroethene             | 20.000  | 20.148  | -0.7  | 107   | 0.00     |
| 38   | Methylcyclohexane           | 20.000  | 19.348  | 3.3   | 103   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 20.000  | 19.445  | 2.8   | 103   | 0.00     |
| 40   | Dibromomethane              | 20.000  | 20.309  | -1.5  | 113   | 0.00     |
| 41 M | Bromodichloromethane        | 20.000  | 19.092  | 4.5   | 105   | 0.00     |
| 42 M | Vinyl Acetate               | 100.000 | 95.800  | 4.2   | 104   | 0.00     |
| 43   | Ethyl Acetate               | 20.000  | 20.033  | -0.2  | 105   | 0.00     |
| 44   | Isopropyl Acetate           | 20.000  | 19.341  | 3.3   | 103   | 0.00     |
| 45 T | 1,4-Dioxane                 | 400.000 | 423.452 | -5.9  | 125   | 0.00     |

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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  | 20.358  | -1.8  | 112   | 0.00     |
| 47   | n-amyl Acetate              | 20.000  | 17.602  | 12.0  | 104   | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 20.000  | 18.587  | 7.1   | 105   | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 20.000  | 18.780  | 6.1   | 105   | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 20.000  | 19.765  | 1.2   | 115   | 0.00     |
| 51   | Ethyl methacrylate          | 20.000  | 18.558  | 7.2   | 106   | 0.00     |
| 52   | 1,3-Dichloropropane         | 20.000  | 19.583  | 2.1   | 110   | 0.00     |
| 53 M | Dibromochloromethane        | 20.000  | 18.224  | 8.9   | 109   | 0.00     |
| 54 M | 1,2-Dibromoethane           | 20.000  | 19.349  | 3.3   | 113   | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 100.000 | 83.381  | 16.6  | 94    | 0.00     |
| 56 M | Bromoform                   | 20.000  | 17.017  | 14.9  | 108   | 0.00     |
| 57 I | Chlorobenzene-d5            | 30.000  | 30.000  | 0.0   | 109   | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 100.000 | 101.486 | -1.5  | 110   | 0.00     |
| 59 M | 2-Hexanone                  | 100.000 | 101.702 | -1.7  | 112   | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 30.000  | 28.122  | 6.3   | 111   | 0.00     |
| 61 M | Tetrachloroethene           | 20.000  | 20.472  | -2.4  | 112   | 0.00     |
| 62 M | Toluene                     | 20.000  | 19.903  | 0.5   | 111   | 0.00     |
| 63 S | Toluene-d8                  | 30.000  | 29.887  | 0.4   | 107   | 0.00     |
| 64 M | Chlorobenzene               | 20.000  | 19.799  | 1.0   | 112   | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 20.000  | 19.326  | 3.4   | 111   | 0.00     |
| 66 M | Ethyl Benzene               | 20.000  | 19.353  | 3.2   | 110   | 0.00     |
| 67 M | m/p-Xylenes                 | 40.000  | 39.474  | 1.3   | 114   | 0.00     |
| 68 M | o-Xylene                    | 20.000  | 19.806  | 1.0   | 114   | 0.00     |
| 69 M | Styrene                     | 20.000  | 18.699  | 6.5   | 112   | 0.00     |
| 70   | Isopropylbenzene            | 20.000  | 19.694  | 1.5   | 116   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 20.000  | 20.490  | -2.4  | 119   | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 20.000  | 23.941  | -19.7 | 134   | 0.00     |
| 73   | Bromobenzene                | 20.000  | 19.396  | 3.0   | 118   | 0.00     |
| 74   | n-propylbenzene             | 20.000  | 19.386  | 3.1   | 114   | 0.00     |
| 75   | 2-Chlorotoluene             | 20.000  | 19.588  | 2.1   | 116   | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 20.000  | 19.637  | 1.8   | 116   | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 20.000  | 17.524  | 12.4  | 108   | 0.00     |
| 78   | 4-Chlorotoluene             | 20.000  | 19.144  | 4.3   | 115   | 0.00     |
| 79   | tert-butylbenzene           | 20.000  | 19.935  | 0.3   | 119   | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 20.000  | 20.038  | -0.2  | 119   | 0.00     |
| 81   | sec-Butylbenzene            | 20.000  | 19.750  | 1.3   | 116   | 0.00     |
| 82   | p-Isopropyltoluene          | 20.000  | 19.987  | 0.1   | 120   | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 20.000  | 19.486  | 2.6   | 121   | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 20.000  | 18.831  | 5.8   | 119   | 0.00     |
| 85   | n-Butylbenzene              | 20.000  | 18.861  | 5.7   | 113   | 0.00     |
| 86 T | Hexachloroethane            | 20.000  | 18.213  | 8.9   | 108   | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 20.000  | 19.315  | 3.4   | 120   | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 20.000  | 18.539  | 7.3   | 111   | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 20.000  | 18.310  | 8.5   | 104   | 0.00     |
| 90   | Hexachlorobutadiene         | 20.000  | 21.086  | -5.4  | 122   | 0.00     |

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Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound               | Amount | Calc.  | %Dev | Area% | Dev(min) |
|------|------------------------|--------|--------|------|-------|----------|
| 91 M | Naphthalene            | 20.000 | 14.289 | 28.6 | 94    | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 20.000 | 16.275 | 18.6 | 101   | 0.00     |

(#) = Out of Range

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