

Data Path : W:\HPCHEM1\MSVOA X\Data\VX043018\  
 Data File : VX001267.D  
 Acq On : 30 Apr 2018 21:46  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC020

Quant Time: May 01 09:30:20 2018  
 Quant Method : W:\HPCHEM1\MSVOA X\METHOD\624X043018W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue May 01 09:17:40 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   | 91    | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 20.000  | 20.476  | -2.4  | 85    | 0.00     |
| 3 M  | Chloromethane               | 20.000  | 20.515  | -2.6  | 86    | 0.00     |
| 4 M  | Vinyl Chloride              | 20.000  | 20.440  | -2.2  | 86    | 0.00     |
| 5 M  | Bromomethane                | 20.000  | 20.428  | -2.1  | 90    | 0.01     |
| 6 M  | Chloroethane                | 20.000  | 20.633  | -3.2  | 90    | 0.01     |
| 7 M  | Trichlorofluoromethane      | 20.000  | 21.056  | -5.3  | 91    | 0.00     |
| 8 T  | Diethyl Ether               | 20.000  | 21.545  | -7.7  | 95    | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 20.000  | 20.253  | -1.3  | 90    | 0.00     |
| 10 M | 1,1-Dichloroethene          | 20.000  | 20.870  | -4.4  | 94    | 0.00     |
| 11   | Methyl Iodide               | 20.000  | 17.688  | 11.6  | 87    | 0.00     |
| 12   | Methyl Acetate              | 20.000  | 22.964  | -14.8 | 101   | 0.00     |
| 13 M | Acrolein                    | 100.000 | 99.469  | 0.5   | 88    | 0.00     |
| 14 M | Acrylonitrile               | 100.000 | 114.126 | -14.1 | 101   | 0.00     |
| 15 M | Acetone                     | 100.000 | 102.093 | -2.1  | 89    | 0.00     |
| 16 M | Carbon Disulfide            | 20.000  | 19.201  | 4.0   | 87    | 0.00     |
| 17   | Allyl chloride              | 20.000  | 20.721  | -3.6  | 91    | 0.00     |
| 18 M | Methylene Chloride          | 20.000  | 20.714  | -3.6  | 91    | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 20.000  | 20.328  | -1.6  | 90    | 0.00     |
| 20 T | Diisopropyl ether           | 20.000  | 19.713  | 1.4   | 89    | 0.00     |
| 21 M | 1,1-Dichloroethane          | 20.000  | 19.932  | 0.3   | 85    | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 20.000  | 19.865  | 0.7   | 87    | 0.00     |
| 23 M | tert-Butyl Alcohol          | 100.000 | 128.294 | -28.3 | 115   | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 20.000  | 20.909  | -4.5  | 93    | 0.00     |
| 25 M | Chloroform                  | 20.000  | 19.915  | 0.4   | 89    | 0.00     |
| 26   | Cyclohexane                 | 20.000  | 19.606  | 2.0   | 87    | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 30.000  | 30.841  | -2.8  | 92    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 30.000  | 30.000  | 0.0   | 92    | 0.00     |
| 29   | 1,1-Dichloropropene         | 20.000  | 19.034  | 4.8   | 89    | 0.00     |
| 30 M | 2-Butanone                  | 100.000 | 104.043 | -4.0  | 94    | 0.00     |
| 31   | 2,2-Dichloropropane         | 20.000  | 16.984  | 15.1  | 78    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 20.000  | 18.827  | 5.9   | 86    | 0.00     |
| 33 M | Carbon Tetrachloride        | 20.000  | 18.082  | 9.6   | 86    | 0.00     |
| 34 M | Benzene                     | 20.000  | 19.163  | 4.2   | 87    | 0.00     |
| 35   | Methacrylonitrile           | 20.000  | 20.108  | -0.5  | 93    | 0.00     |
| 36 M | 1,2-Dichloroethane          | 20.000  | 19.574  | 2.1   | 90    | 0.00     |
| 37 M | Trichloroethene             | 20.000  | 19.202  | 4.0   | 88    | 0.00     |
| 38   | Methylcyclohexane           | 20.000  | 18.664  | 6.7   | 87    | 0.00     |
| 39 M | 1,2-Dichloropropane         | 20.000  | 19.184  | 4.1   | 88    | 0.00     |
| 40   | Dibromomethane              | 20.000  | 19.410  | 2.9   | 89    | 0.00     |
| 41 M | Bromodichloromethane        | 20.000  | 18.179  | 9.1   | 85    | 0.00     |
| 42 M | Vinyl Acetate               | 100.000 | 94.204  | 5.8   | 86    | 0.00     |
| 43   | Ethyl Acetate               | 20.000  | 20.824  | -4.1  | 98    | 0.00     |
| 44   | Isopropyl Acetate           | 20.000  | 19.721  | 1.4   | 94    | 0.00     |
| 45 T | 1,4-Dioxane                 | 400.000 | 454.477 | -13.6 | 112   | 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  | 19.596  | 2.0  | 92    | 0.00     |
| 47   | n-amyl Acetate              | 20.000  | 17.992  | 10.0 | 88    | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 20.000  | 17.839  | 10.8 | 85    | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 20.000  | 17.358  | 13.2 | 83    | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 20.000  | 19.392  | 3.0  | 88    | 0.00     |
| 51   | Ethyl methacrylate          | 20.000  | 18.929  | 5.4  | 90    | 0.00     |
| 52   | 1,3-Dichloropropane         | 20.000  | 19.863  | 0.7  | 91    | 0.00     |
| 53 M | Dibromochloromethane        | 20.000  | 17.629  | 11.9 | 85    | 0.00     |
| 54 M | 1,2-Dibromoethane           | 20.000  | 19.335  | 3.3  | 90    | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 100.000 | 99.642  | 0.4  | 91    | 0.00     |
| 56 M | Bromoform                   | 20.000  | 17.211  | 13.9 | 88    | 0.00     |
| 57 I | Chlorobenzene-d5            | 30.000  | 30.000  | 0.0  | 92    | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 100.000 | 105.208 | -5.2 | 96    | 0.00     |
| 59 M | 2-Hexanone                  | 100.000 | 101.389 | -1.4 | 94    | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 30.000  | 28.911  | 3.6  | 91    | 0.00     |
| 61 M | Tetrachloroethene           | 20.000  | 20.350  | -1.8 | 88    | 0.00     |
| 62 M | Toluene                     | 20.000  | 19.199  | 4.0  | 88    | 0.00     |
| 63 S | Toluene-d8                  | 30.000  | 30.200  | -0.7 | 93    | 0.00     |
| 64 M | Chlorobenzene               | 20.000  | 19.024  | 4.9  | 88    | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 20.000  | 18.544  | 7.3  | 84    | 0.00     |
| 66 M | Ethyl Benzene               | 20.000  | 18.748  | 6.3  | 86    | 0.00     |
| 67 M | m/p-Xylenes                 | 40.000  | 37.840  | 5.4  | 89    | 0.00     |
| 68 M | o-Xylene                    | 20.000  | 19.127  | 4.4  | 88    | 0.00     |
| 69 M | Styrene                     | 20.000  | 18.376  | 8.1  | 86    | 0.00     |
| 70   | Isopropylbenzene            | 20.000  | 18.818  | 5.9  | 87    | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 20.000  | 19.414  | 2.9  | 92    | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 20.000  | 20.366  | -1.8 | 91    | 0.00     |
| 73   | Bromobenzene                | 20.000  | 18.724  | 6.4  | 88    | 0.00     |
| 74   | n-propylbenzene             | 20.000  | 18.765  | 6.2  | 88    | 0.00     |
| 75   | 2-Chlorotoluene             | 20.000  | 18.847  | 5.8  | 89    | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 20.000  | 18.712  | 6.4  | 88    | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 20.000  | 16.083  | 19.6 | 88    | 0.00     |
| 78   | 4-Chlorotoluene             | 20.000  | 18.373  | 8.1  | 86    | 0.00     |
| 79   | tert-butylbenzene           | 20.000  | 19.263  | 3.7  | 91    | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 20.000  | 18.792  | 6.0  | 87    | 0.00     |
| 81   | sec-Butylbenzene            | 20.000  | 19.189  | 4.1  | 90    | 0.00     |
| 82   | p-Isopropyltoluene          | 20.000  | 19.263  | 3.7  | 91    | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 20.000  | 18.489  | 7.6  | 87    | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 20.000  | 18.379  | 8.1  | 86    | 0.00     |
| 85   | n-Butylbenzene              | 20.000  | 18.409  | 8.0  | 90    | 0.00     |
| 86 T | Hexachloroethane            | 20.000  | 16.829  | 15.9 | 83    | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 20.000  | 18.859  | 5.7  | 89    | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 20.000  | 19.185  | 4.1  | 92    | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 20.000  | 19.162  | 4.2  | 91    | 0.00     |
| 90   | Hexachlorobutadiene         | 20.000  | 21.904  | -9.5 | 108   | 0.00     |

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|      | Compound               | Amount | Calc.  | %Dev | Area% | Dev(min) |
|------|------------------------|--------|--------|------|-------|----------|
| 91 M | Naphthalene            | 20.000 | 20.331 | -1.7 | 95    | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 20.000 | 19.708 | 1.5  | 94    | 0.00     |

(#) = Out of Range

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