

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120823\  
 Data File : VX039104.D  
 Acq On : 08 Dec 2023 14:44  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC020

Quant Time: Dec 08 23:48:49 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X112423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Nov 27 03:22:25 2023  
 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                    | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) |
|------|-----------------------------|--------|--------|--------|-------|----------|
| 1 I  | Bromochloromethane          | 1.000  | 1.000  | 0.0    | 91    | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 4.490  | 3.246  | 27.7#  | 65    | 0.00     |
| 3 M  | Chloromethane               | 5.141  | 4.623  | 10.1   | 83    | 0.00     |
| 4 M  | Vinyl Chloride              | 5.191  | 4.070  | 21.6   | 72    | 0.00     |
| 5 M  | Bromomethane                | 3.175  | 3.303  | -4.0   | 84    | 0.00     |
| 6 M  | Chloroethane                | 3.023  | 2.809  | 7.1    | 81    | 0.00     |
| 7 M  | Trichlorofluoromethane      | 7.164  | 5.496  | 23.3   | 69    | 0.00     |
| 8 T  | Diethyl Ether               | 2.750  | 2.909  | -5.8   | 96    | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 4.048  | 3.482  | 14.0   | 79    | 0.00     |
| 10 M | 1,1-Dichloroethene          | 4.081  | 3.497  | 14.3   | 79    | 0.00     |
| 11   | Methyl Iodide               | 4.472  | 4.109  | 8.1    | 92    | 0.00     |
| 12   | Methyl Acetate              | 12.727 | 15.639 | -22.9  | 113   | 0.00     |
| 13 M | Acrolein                    | 1.115  | 1.208  | -8.3   | 103   | 0.00     |
| 14 M | Acrylonitrile               | 3.113  | 3.678  | -18.1  | 109   | 0.00     |
| 15 M | Acetone                     | 1.131  | 1.202  | -6.3   | 86    | 0.00     |
| 16 M | Carbon Disulfide            | 12.359 | 9.607  | 22.3   | 72    | 0.00     |
| 17   | Allyl chloride              | 8.101  | 8.352  | -3.1   | 94    | 0.00     |
| 18 M | Methylene Chloride          | 4.837  | 5.262  | -8.8   | 103   | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 4.615  | 4.206  | 8.9    | 85    | 0.00     |
| 20 T | Diisopropyl ether           | 15.416 | 17.511 | -13.6  | 104   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 8.571  | 8.844  | -3.2   | 95    | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 5.349  | 5.297  | 1.0    | 91    | -0.01    |
| 23 M | tert-Butyl Alcohol          | 1.723  | 1.760  | -2.1   | 97    | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 15.032 | 16.756 | -11.5  | 103   | 0.00     |
| 25 M | Chloroform                  | 8.603  | 8.890  | -3.3   | 96    | 0.00     |
| 26   | Cyclohexane                 | 7.758  | 6.135  | 20.9   | 73    | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 4.104  | 4.297  | -4.7   | 93    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 1.000  | 1.000  | 0.0    | 83    | 0.00     |
| 29   | 1,1-Dichloropropene         | 0.841  | 0.770  | 8.4    | 79    | 0.00     |
| 30 M | 2-Butanone                  | 0.633  | 0.760  | -20.1  | 100   | 0.00     |
| 31   | 2,2-Dichloropropane         | 0.962  | 0.893  | 7.2    | 79    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 0.972  | 0.900  | 7.4    | 79    | 0.00     |
| 33 M | Carbon Tetrachloride        | 0.819  | 0.704  | 14.0   | 74    | 0.00     |
| 34 M | Benzene                     | 2.450  | 2.568  | -4.8   | 90    | 0.00     |
| 35   | Methacrylonitrile           | 0.561  | 0.702  | -25.1# | 110   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 0.899  | 1.019  | -13.3  | 97    | 0.00     |
| 37 M | Trichloroethene             | 0.622  | 0.592  | 4.8    | 81    | 0.00     |
| 38   | Methylcyclohexane           | 1.048  | 0.863  | 17.7   | 70    | 0.00     |
| 39 M | 1,2-Dichloropropane         | 0.646  | 0.745  | -15.3  | 102   | 0.00     |
| 40   | Dibromomethane              | 0.457  | 0.510  | -11.6  | 97    | 0.00     |
| 41 M | Bromodichloromethane        | 0.877  | 0.976  | -11.3  | 96    | 0.00     |
| 42 M | Vinyl Acetate               | 1.508  | 1.811  | -20.1  | 102   | 0.00     |
| 43   | Ethyl Acetate               | 1.089  | 1.330  | -22.1  | 104   | -0.01    |
| 44   | Isopropyl Acetate           | 1.717  | 2.056  | -19.7  | 105   | 0.00     |
| 45 T | 1,4-Dioxane                 | 0.018  | 0.016  | 11.1   | 84    | 0.00     |
| 46   | Methyl methacrylate         | 0.982  | 1.189  | -21.1  | 105   | 0.00     |
| 47   | n-amyl Acetate              | 1.453  | 1.664  | -14.5  | 103   | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 1.017  | 1.081  | -6.3   | 92    | 0.00     |

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 MSVOA\_X  
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 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                    | AvgRF | CCRF  | %Dev   | Area% | Dev(min) |
|------|-----------------------------|-------|-------|--------|-------|----------|
| 49 T | cis-1,3-Dichloropropene     | 1.049 | 1.144 | -9.1   | 94    | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 0.620 | 0.733 | -18.2  | 102   | 0.00     |
| 51   | Ethyl methacrylate          | 0.776 | 0.929 | -19.7  | 107   | 0.00     |
| 52   | 1,3-Dichloropropane         | 1.063 | 1.263 | -18.8  | 102   | 0.00     |
| 53 M | Dibromochloromethane        | 0.666 | 0.711 | -6.8   | 91    | 0.00     |
| 54 M | 1,2-Dibromoethane           | 0.680 | 0.767 | -12.8  | 99    | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 0.492 | 0.604 | -22.8  | 111   | 0.00     |
| 56 M | Bromoform                   | 0.481 | 0.484 | -0.6   | 89    | 0.00     |
| 57 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 81    | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 0.910 | 1.198 | -31.6# | 108   | 0.00     |
| 59 M | 2-Hexanone                  | 0.747 | 0.944 | -26.4# | 104   | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 0.655 | 0.662 | -1.1   | 83    | 0.00     |
| 61 M | Tetrachloroethene           | 0.390 | 0.368 | 5.6    | 76    | 0.00     |
| 62 M | Toluene                     | 2.130 | 2.212 | -3.8   | 86    | 0.00     |
| 63 S | Toluene-d8                  | 1.186 | 1.191 | -0.4   | 82    | 0.00     |
| 64 M | Chlorobenzene               | 1.296 | 1.346 | -3.9   | 87    | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 0.467 | 0.503 | -7.7   | 89    | 0.00     |
| 66 M | Ethyl Benzene               | 2.425 | 2.357 | 2.8    | 80    | 0.00     |
| 67 M | m/p-Xylenes                 | 0.896 | 0.863 | 3.7    | 80    | 0.00     |
| 68 M | o-Xylene                    | 0.868 | 0.846 | 2.5    | 82    | 0.00     |
| 69 M | Styrene                     | 1.285 | 1.278 | 0.5    | 84    | 0.00     |
| 70   | Isopropylbenzene            | 2.323 | 2.212 | 4.8    | 79    | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 0.867 | 1.056 | -21.8  | 102   | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 0.734 | 0.908 | -23.7  | 102   | 0.00     |
| 73   | Bromobenzene                | 0.529 | 0.521 | 1.5    | 84    | 0.00     |
| 74   | n-propylbenzene             | 2.846 | 2.656 | 6.7    | 77    | 0.00     |
| 75   | 2-Chlorotoluene             | 1.670 | 1.627 | 2.6    | 82    | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 2.001 | 1.886 | 5.7    | 78    | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 0.291 | 0.322 | -10.7  | 98    | 0.00     |
| 78   | 4-Chlorotoluene             | 1.963 | 1.855 | 5.5    | 79    | 0.00     |
| 79   | tert-butylbenzene           | 1.903 | 1.811 | 4.8    | 79    | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 2.003 | 1.881 | 6.1    | 78    | 0.00     |
| 81   | sec-Butylbenzene            | 2.405 | 2.203 | 8.4    | 77    | 0.00     |
| 82   | p-Isopropyltoluene          | 2.039 | 1.860 | 8.8    | 77    | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 1.012 | 0.986 | 2.6    | 83    | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 1.038 | 0.964 | 7.1    | 78    | 0.00     |
| 85   | n-Butylbenzene              | 2.013 | 1.821 | 9.5    | 77    | 0.00     |
| 86 T | Hexachloroethane            | 0.386 | 0.335 | 13.2   | 73    | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 0.973 | 0.953 | 2.1    | 82    | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.222 | 0.246 | -10.8  | 93    | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 0.645 | 0.604 | 6.4    | 79    | 0.00     |
| 90   | Hexachlorobutadiene         | 0.230 | 0.205 | 10.9   | 74    | 0.00     |
| 91 M | Naphthalene                 | 2.379 | 2.418 | -1.6   | 87    | 0.00     |
| 92   | 1,2,3-Trichlorobenzene      | 0.625 | 0.597 | 4.5    | 80    | 0.00     |

(#) = Out of Range

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