

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN082120\  
 Data File : VN063072.D  
 Acq On : 21 Aug 2020 11:16  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC020

Quant Time: Aug 22 00:58:03 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N082020W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Aug 20 14:01:17 2020  
 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                    | AvqRF | CCRF   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|-------|--------|-------|-------|----------|
| 1 I  | Bromochloromethane          | 1.000 | 1.000  | 0.0   | 97    | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 2.145 | 2.380  | -11.0 | 107   | 0.00     |
| 3 M  | Chloromethane               | 2.373 | 2.550  | -7.5  | 104   | 0.00     |
| 4 M  | Vinyl Chloride              | 2.389 | 2.571  | -7.6  | 106   | 0.00     |
| 5 M  | Bromomethane                | 1.473 | 1.533  | -4.1  | 103   | 0.00     |
| 6 M  | Chloroethane                | 1.412 | 1.503  | -6.4  | 105   | 0.00     |
| 7 M  | Trichlorofluoromethane      | 2.881 | 3.053  | -6.0  | 106   | 0.00     |
| 8 T  | Diethyl Ether               | 0.958 | 0.968  | -1.0  | 105   | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 1.558 | 1.575  | -1.1  | 105   | 0.00     |
| 10 M | 1,1-Dichloroethene          | 1.400 | 1.392  | 0.6   | 104   | 0.00     |
| 11   | Methyl Iodide               | 1.921 | 1.871  | 2.6   | 106   | 0.00     |
| 12   | Methyl Acetate              | 1.866 | 1.973  | -5.7  | 107   | 0.00     |
| 13 M | Acrolein                    | 0.191 | 0.142  | 25.7  | 83    | 0.00     |
| 14 M | Acrylonitrile               | 0.817 | 0.839  | -2.7  | 105   | 0.00     |
| 15 M | Acetone                     | 0.236 | 0.266  | -12.7 | 115   | 0.00     |
| 16 M | Carbon Disulfide            | 3.758 | 3.656  | 2.7   | 101   | 0.00     |
| 17   | Allyl chloride              | 2.569 | 2.548  | 0.8   | 107   | 0.00     |
| 18 M | Methylene Chloride          | 1.959 | 1.880  | 4.0   | 98    | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 1.539 | 1.528  | 0.7   | 105   | 0.00     |
| 20 T | Diisopropyl ether           | 6.017 | 6.310  | -4.9  | 108   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 3.302 | 3.354  | -1.6  | 105   | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 1.908 | 1.911  | -0.2  | 107   | 0.00     |
| 23 M | tert-Butyl Alcohol          | 0.268 | 0.243  | 9.3   | 92    | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 5.136 | 5.248  | -2.2  | 108   | 0.00     |
| 25 M | Chloroform                  | 3.288 | 3.354  | -2.0  | 107   | 0.00     |
| 26   | Cyclohexane                 | 2.843 | 2.779  | 2.3   | 102   | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 2.126 | 2.128  | -0.1  | 95    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 1.000 | 1.000  | 0.0   | 98    | 0.00     |
| 29   | 1,1-Dichloropropene         | 0.436 | 0.426  | 2.3   | 105   | 0.00     |
| 30 M | 2-Butanone                  | 0.203 | 0.208  | -2.5  | 108   | 0.00     |
| 31   | 2,2-Dichloropropane         | 0.530 | 0.531  | -0.2  | 108   | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 0.525 | 0.529  | -0.8  | 106   | 0.00     |
| 33 M | Carbon Tetrachloride        | 0.447 | 0.438  | 2.0   | 105   | 0.00     |
| 34 M | Benzene                     | 1.396 | 1.390  | 0.4   | 104   | 0.00     |
| 35   | Methacrylonitrile           | 0.193 | 0.187  | 3.1   | 97    | 0.00     |
| 36 M | 1,2-Dichloroethane          | 0.476 | 0.477  | -0.2  | 104   | 0.00     |
| 37 M | Trichloroethene             | 0.342 | 0.343  | -0.3  | 106   | 0.00     |
| 38   | Methylcyclohexane           | 0.546 | 0.522  | 4.4   | 106   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 0.406 | 0.407  | -0.2  | 105   | 0.00     |
| 40   | Dibromomethane              | 0.236 | 0.229  | 3.0   | 102   | 0.00     |
| 41 M | Bromodichloromethane        | 0.523 | 0.516  | 1.3   | 105   | 0.00     |
| 42 M | Vinyl Acetate               | 0.769 | 0.742  | 3.5   | 107   | 0.00     |
| 43   | Ethyl Acetate               | 0.388 | 0.372  | 4.1   | 100   | 0.00     |
| 44   | Isopropyl Acetate           | 0.651 | 0.644  | 1.1   | 106   | 0.00     |
| 45 T | 1,4-Dioxane                 | 0.006 | 0.006# | 0.0   | 104   | 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                    | AvqRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 46   | Methyl methacrylate         | 0.320 | 0.315 | 1.6  | 107   | 0.00     |
| 47   | n-amyl Acetate              | 0.578 | 0.538 | 6.9  | 107   | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 0.552 | 0.539 | 2.4  | 106   | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 0.601 | 0.589 | 2.0  | 104   | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 0.364 | 0.374 | -2.7 | 108   | 0.00     |
| 51   | Ethyl methacrylate          | 0.495 | 0.473 | 4.4  | 107   | 0.00     |
| 52   | 1,3-Dichloropropane         | 0.601 | 0.607 | -1.0 | 106   | 0.00     |
| 53 M | Dibromochloromethane        | 0.399 | 0.392 | 1.8  | 104   | 0.00     |
| 54 M | 1,2-Dibromoethane           | 0.349 | 0.346 | 0.9  | 104   | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 0.102 | 0.073 | 28.4 | 89    | 0.00     |
| 56 M | Bromoform                   | 0.292 | 0.283 | 3.1  | 108   | 0.00     |
| 57 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 98    | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 0.432 | 0.434 | -0.5 | 104   | 0.00     |
| 59 M | 2-Hexanone                  | 0.308 | 0.311 | -1.0 | 108   | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 0.474 | 0.474 | 0.0  | 101   | 0.00     |
| 61 M | Tetrachloroethene           | 0.329 | 0.332 | -0.9 | 105   | 0.00     |
| 62 M | Toluene                     | 1.590 | 1.592 | -0.1 | 106   | 0.00     |
| 63 S | Toluene-d8                  | 1.377 | 1.379 | -0.1 | 98    | 0.00     |
| 64 M | Chlorobenzene               | 0.984 | 0.986 | -0.2 | 106   | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 0.390 | 0.384 | 1.5  | 105   | 0.00     |
| 66 M | Ethyl Benzene               | 1.733 | 1.690 | 2.5  | 107   | 0.00     |
| 67 M | m/p-Xylenes                 | 0.649 | 0.649 | 0.0  | 109   | 0.00     |
| 68 M | o-Xylene                    | 0.624 | 0.615 | 1.4  | 108   | 0.00     |
| 69 M | Styrene                     | 1.090 | 1.080 | 0.9  | 109   | 0.00     |
| 70   | Isopropylbenzene            | 1.697 | 1.694 | 0.2  | 109   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 0.544 | 0.538 | 1.1  | 103   | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 0.483 | 0.485 | -0.4 | 104   | 0.00     |
| 73   | Bromobenzene                | 0.458 | 0.448 | 2.2  | 107   | 0.00     |
| 74   | n-propylbenzene             | 2.035 | 1.981 | 2.7  | 107   | 0.00     |
| 75   | 2-Chlorotoluene             | 1.213 | 1.187 | 2.1  | 107   | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 1.448 | 1.423 | 1.7  | 107   | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 0.171 | 0.162 | 5.3  | 108   | 0.00     |
| 78   | 4-Chlorotoluene             | 1.251 | 1.231 | 1.6  | 108   | 0.00     |
| 79   | tert-butylbenzene           | 1.218 | 1.188 | 2.5  | 110   | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 1.409 | 1.355 | 3.8  | 106   | 0.00     |
| 81   | sec-Butylbenzene            | 1.678 | 1.636 | 2.5  | 109   | 0.00     |
| 82   | p-Isopropyltoluene          | 1.488 | 1.418 | 4.7  | 109   | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 0.799 | 0.777 | 2.8  | 107   | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 0.781 | 0.756 | 3.2  | 108   | 0.00     |
| 85   | n-Butylbenzene              | 1.236 | 1.083 | 12.4 | 107   | 0.00     |
| 86 T | Hexachloroethane            | 0.293 | 0.286 | 2.4  | 108   | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 0.765 | 0.747 | 2.4  | 106   | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.086 | 0.085 | 1.2  | 108   | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 0.378 | 0.335 | 11.4 | 112   | 0.00     |
| 90   | Hexachlorobutadiene         | 0.279 | 0.259 | 7.2  | 104   | 0.00     |

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|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|------------------------|-------|-------|------|-------|----------|
| 91 M | Naphthalene            | 0.834 | 0.716 | 14.1 | 115   | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 0.377 | 0.340 | 9.8  | 110   | 0.00     |

(#) = Out of Range

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