

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\WX022120\  
 Data File : VX014996.D  
 Acq On : 21 Feb 2020 16:39  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC020

Quant Time: Feb 22 02:09:07 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X022120W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Sat Feb 22 00:37:56 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  | 95    | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 1.340 | 1.206  | 10.0 | 94    | 0.00     |
| 3 M  | Chloromethane               | 1.732 | 1.649  | 4.8  | 98    | 0.00     |
| 4 M  | Vinyl Chloride              | 1.864 | 1.717  | 7.9  | 95    | 0.00     |
| 5 M  | Bromomethane                | 1.306 | 1.189  | 9.0  | 98    | 0.00     |
| 6 M  | Chloroethane                | 1.249 | 1.202  | 3.8  | 97    | 0.00     |
| 7 M  | Trichlorofluoromethane      | 2.713 | 2.581  | 4.9  | 97    | 0.00     |
| 8 T  | Diethyl Ether               | 1.141 | 1.085  | 4.9  | 98    | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 1.569 | 1.531  | 2.4  | 99    | 0.00     |
| 10 M | 1,1-Dichloroethene          | 1.577 | 1.496  | 5.1  | 98    | 0.00     |
| 11   | Methyl Iodide               | 1.916 | 1.439  | 24.9 | 84    | 0.00     |
| 12   | Methyl Acetate              | 1.962 | 1.863  | 5.0  | 98    | 0.00     |
| 13 M | Acrolein                    | 0.390 | 0.359  | 7.9  | 96    | 0.00     |
| 14 M | Acrylonitrile               | 0.886 | 0.851  | 4.0  | 100   | 0.00     |
| 15 M | Acetone                     | 0.317 | 0.272  | 14.2 | 80    | 0.00     |
| 16 M | Carbon Disulfide            | 4.240 | 3.900  | 8.0  | 97    | 0.00     |
| 17   | Allyl chloride              | 2.743 | 2.580  | 5.9  | 98    | 0.00     |
| 18 M | Methylene Chloride          | 1.817 | 1.733  | 4.6  | 96    | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 1.732 | 1.658  | 4.3  | 98    | 0.00     |
| 20 T | Diisopropyl ether           | 5.603 | 5.356  | 4.4  | 96    | 0.00     |
| 21 M | 1,1-Dichloroethane          | 3.071 | 2.928  | 4.7  | 98    | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 1.982 | 1.891  | 4.6  | 96    | 0.00     |
| 23 M | tert-Butyl Alcohol          | 0.351 | 0.322  | 8.3  | 96    | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 5.247 | 5.000  | 4.7  | 98    | 0.00     |
| 25 M | Chloroform                  | 3.097 | 2.976  | 3.9  | 97    | 0.00     |
| 26   | Cyclohexane                 | 2.745 | 2.568  | 6.4  | 96    | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 2.086 | 2.035  | 2.4  | 92    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 1.000 | 1.000  | 0.0  | 95    | 0.00     |
| 29   | 1,1-Dichloropropene         | 0.424 | 0.408  | 3.8  | 99    | 0.00     |
| 30 M | 2-Butanone                  | 0.245 | 0.224  | 8.6  | 90    | 0.00     |
| 31   | 2,2-Dichloropropane         | 0.466 | 0.438  | 6.0  | 97    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 0.482 | 0.451  | 6.4  | 97    | 0.00     |
| 33 M | Carbon Tetrachloride        | 0.422 | 0.399  | 5.5  | 98    | 0.00     |
| 34 M | Benzene                     | 1.280 | 1.239  | 3.2  | 99    | 0.00     |
| 35   | Methacrylonitrile           | 0.250 | 0.236  | 5.6  | 100   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 0.453 | 0.444  | 2.0  | 100   | 0.00     |
| 37 M | Trichloroethene             | 0.360 | 0.344  | 4.4  | 100   | 0.00     |
| 38   | Methylcyclohexane           | 0.526 | 0.510  | 3.0  | 101   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 0.330 | 0.313  | 5.2  | 98    | 0.00     |
| 40   | Dibromomethane              | 0.220 | 0.210  | 4.5  | 96    | 0.00     |
| 41 M | Bromodichloromethane        | 0.435 | 0.409  | 6.0  | 98    | 0.00     |
| 42 M | Vinyl Acetate               | 0.862 | 0.826  | 4.2  | 98    | 0.00     |
| 43   | Ethyl Acetate               | 0.443 | 0.425  | 4.1  | 98    | 0.00     |
| 44   | Isopropyl Acetate           | 0.745 | 0.697  | 6.4  | 97    | 0.00     |
| 45 T | 1,4-Dioxane                 | 0.007 | 0.006# | 14.3 | 93    | -0.01    |

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|      | Compound                    | AvqRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 46   | Methyl methacrylate         | 0.369 | 0.341 | 7.6  | 98    | 0.00     |
| 47   | n-amyl Acetate              | 0.645 | 0.586 | 9.1  | 98    | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 0.482 | 0.445 | 7.7  | 98    | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 0.531 | 0.502 | 5.5  | 99    | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 0.328 | 0.312 | 4.9  | 95    | 0.00     |
| 51   | Ethyl methacrylate          | 0.506 | 0.472 | 6.7  | 99    | 0.00     |
| 52   | 1,3-Dichloropropane         | 0.555 | 0.528 | 4.9  | 96    | 0.00     |
| 53 M | Dibromochloromethane        | 0.354 | 0.336 | 5.1  | 99    | 0.00     |
| 54 M | 1,2-Dibromoethane           | 0.348 | 0.335 | 3.7  | 99    | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 0.270 | 0.265 | 1.9  | 100   | 0.00     |
| 56 M | Bromoform                   | 0.278 | 0.255 | 8.3  | 97    | 0.00     |
| 57 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 98    | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 0.492 | 0.464 | 5.7  | 98    | 0.00     |
| 59 M | 2-Hexanone                  | 0.384 | 0.358 | 6.8  | 95    | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 0.467 | 0.460 | 1.5  | 96    | 0.00     |
| 61 M | Tetrachloroethene           | 0.403 | 0.386 | 4.2  | 97    | 0.00     |
| 62 M | Toluene                     | 1.537 | 1.461 | 4.9  | 98    | 0.00     |
| 63 S | Toluene-d8                  | 1.308 | 1.287 | 1.6  | 94    | 0.00     |
| 64 M | Chlorobenzene               | 0.981 | 0.927 | 5.5  | 99    | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 0.363 | 0.343 | 5.5  | 99    | 0.00     |
| 66 M | Ethyl Benzene               | 1.693 | 1.613 | 4.7  | 99    | 0.00     |
| 67 M | m/p-Xylenes                 | 0.653 | 0.621 | 4.9  | 100   | 0.00     |
| 68 M | o-Xylene                    | 0.632 | 0.590 | 6.6  | 98    | 0.00     |
| 69 M | Styrene                     | 1.079 | 1.004 | 7.0  | 99    | 0.00     |
| 70   | Isopropylbenzene            | 1.678 | 1.603 | 4.5  | 100   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 0.540 | 0.509 | 5.7  | 98    | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 0.448 | 0.429 | 4.2  | 99    | 0.00     |
| 73   | Bromobenzene                | 0.453 | 0.420 | 7.3  | 97    | 0.00     |
| 74   | n-propylbenzene             | 1.909 | 1.847 | 3.2  | 101   | 0.00     |
| 75   | 2-Chlorotoluene             | 1.128 | 1.075 | 4.7  | 98    | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 1.406 | 1.339 | 4.8  | 100   | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 0.181 | 0.154 | 14.9 | 97    | 0.00     |
| 78   | 4-Chlorotoluene             | 1.305 | 1.254 | 3.9  | 101   | 0.00     |
| 79   | tert-butylbenzene           | 1.358 | 1.286 | 5.3  | 100   | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 1.398 | 1.331 | 4.8  | 100   | 0.00     |
| 81   | sec-Butylbenzene            | 1.627 | 1.576 | 3.1  | 102   | 0.00     |
| 82   | p-Isopropyltoluene          | 1.511 | 1.456 | 3.6  | 101   | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 0.795 | 0.778 | 2.1  | 105   | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 0.800 | 0.764 | 4.5  | 101   | 0.00     |
| 85   | n-Butylbenzene              | 1.315 | 1.303 | 0.9  | 109   | 0.00     |
| 86 T | Hexachloroethane            | 0.273 | 0.248 | 9.2  | 103   | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 0.791 | 0.755 | 4.6  | 101   | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.118 | 0.104 | 11.9 | 95    | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 0.569 | 0.549 | 3.5  | 106   | 0.00     |
| 90   | Hexachlorobutadiene         | 0.282 | 0.281 | 0.4  | 109   | 0.00     |

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|------|------------------------|-------|-------|------|-------|----------|
| 91 M | Naphthalene            | 1.610 | 1.507 | 6.4  | 100   | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 0.565 | 0.545 | 3.5  | 105   | 0.00     |

(#) = Out of Range

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