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# Electronic Comprehensive Validation Package (eCVP)

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# COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1412151AR1

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Comments:

Completed by:

| Kara McKiernan | Kara McKiernan / Document Control | 7/2/15 |
|---|---|---|
| (Signature) | ( Print Name & Title) | (Date) |

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# WORK ORDER #: 1412151AR1

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Mr. Terry Taylor<br>Anderson Mulholland & Associates, Inc.<br>2700 Westchester Avenue<br>Suite 417<br>Purchase, NY 10577 | **BILL TO:** | Accounts Payable<br>Anderson Mulholland & Associates, Inc.<br>2700 Westchester Avenue<br>Suite 417<br>Purchase, NY 10577 |
| **PHONE:** | (914) 251-0400 | **P.O. #** | |
| **FAX:** | | **PROJECT #** | Building 5 VI BMS- Humacao |
| **DATE RECEIVED:** | 12/10/2014 | **CONTACT:** | Brian Whittaker |
| **DATE COMPLETED:** | 12/23/2014 | | |
| **DATE REISSUED:** | 07/01/2015 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | BSIA-5 (2014) | Modified TO-15 | 4.5 "Hg | 5 psi |
| 02A | BSIA-3D (2014) | Modified TO-15 | 16 "Hg | 5 psi |
| 03A | BSIA-3 (2014) | Modified TO-15 | 3.0 "Hg | 5 psi |
| 04A | BSIA-11 (2014) | Modified TO-15 | 8.0 "Hg | 5 psi |
| 05A | BSIA-9 (2014) | Modified TO-15 | 5.0 "Hg | 5 psi |
| 06A | Lab Blank | Modified TO-15 | NA | NA |
| 07A | CCV | Modified TO-15 | NA | NA |
| 08A | LCS | Modified TO-15 | NA | NA |
| 08AA | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 07/01/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Anderson Mulholland & Associates, Inc.**
**Workorder# 1412151AR1**

Five 6 Liter Summa Canister (100% Certified) samples were received on December 10, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Initial Calibration | </=30% RSD with 2 compounds allowed out to < 40% RSD | </=30% RSD with 4 compounds allowed out to < 40% RSD |
| Blank and standards | Zero Air | UHP Nitrogen provides a higher purity gas matrix than zero air |

**Receiving Notes**

Sample BSIA-3D (2014) was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

**Analytical Notes**

Dilution was performed on samples BSIA-5 (2014) and BSIA-3 (2014) due to the presence of high level target species.

Detected results for Toluene, 2-Propanol, and Acetone in samples BSIA-5 (2014), BSIA-3D (2014), and BSIA-3 (2014) exceed the instrument calibration range and are considered estimated values.

The work order was re-issued on July 1, 2015 for the following reasons:

1.To report additional compounds per client's request. While the initial report met the laboratory data quality requirements for the originally requested compounds, the additional compounds were not evaluated for quality compliance at the time of sample analysis. As a result, the re-issued report contains qualified data for several of the added compounds.

2. All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

3. To report estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

4. Due to the linear calibration range of the instrument, the reporting limit for Freon 12 and alpha-Chlorotoluene was raised from 0.1ppbv to 0.5ppbv.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Table 1

| Client Sample ID | Lab Sample ID | Date Collected | Date Received | Date Extracted | Sample Holding Time (Days) | Date Analyzed | Sample Extract Holding Time (Days) | Sample Condition |
|---|---|---|---|---|---|---|---|---|
| BSIA-5 (2014) | 1412151AR1-01 | 12/ 8/2014 | 12/10/2014 | NA | 8 | 12/16/2014 | NA | Good |
| BSIA-3D (2014) | 1412151AR1-02 | 12/ 9/2014 | 12/10/2014 | NA | 7 | 12/16/2014 | NA | Good |
| BSIA-3 (2014) | 1412151AR1-03 | 12/ 9/2014 | 12/10/2014 | NA | 7 | 12/16/2014 | NA | Good |
| BSIA-11 (2014) | 1412151AR1-04 | 12/ 9/2014 | 12/10/2014 | NA | 7 | 12/16/2014 | NA | Good |
| BSIA-9 (2014) | 1412151AR1-05 | 12/ 9/2014 | 12/10/2014 | NA | 7 | 12/16/2014 | NA | Good |
| Lab Blank | 1412151AR1-06 | NA | NA | NA | NA | 12/16/2014 | NA | Good |
| CCV | 1412151AR1-07 | NA | NA | NA | NA | 12/16/2014 | NA | Good |
| LCS | 1412151AR1-08 | NA | NA | NA | NA | 12/16/2014 | NA | Good |
| LCSD | 1412151AR1-08 | NA | NA | NA | NA | 12/16/2014 | NA | Good |

# Sample Results and Raw Data

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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: BSIA-5 (2014)**

**Lab ID#: 1412151AR1-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Chloromethane | 4.0 | 0.93 J | 8.2 | 1.9 J |
| Ethanol | 4.0 | 1400 J0E | 7.4 | 2700 J0E |
| Acetone | 4.0 | 590 E | 9.4 | 1400 E |
| 2-Propanol | 4.0 | 410 E | 9.7 | 1000 E |
| Methylene Chloride | 1.6 | 170 | 5.5 | 590 |
| Methyl tert-butyl ether | 0.79 | 3.7 | 2.8 | 13 |
| Tetrahydrofuran | 4.0 | 7.9 | 12 | 23 |
| Chloroform | 0.79 | 0.26 J | 3.8 | 1.3 J |
| Benzene | 0.79 | 0.26 J | 2.5 | 0.85 J |
| Heptane | 0.79 | 7.0 | 3.2 | 29 |
| 4-Methyl-2-pentanone | 0.79 | 160 | 3.2 | 660 |
| Toluene | 0.79 | 340 E | 3.0 | 1300 E |
| Ethyl Benzene | 0.79 | 47 | 3.4 | 200 |
| m,p-Xylene | 0.79 | 160 | 3.4 | 710 |
| o-Xylene | 0.79 | 15 | 3.4 | 63 |
| Styrene | 0.79 | 0.96 | 3.4 | 4.1 |
| 4-Ethyltoluene | 0.79 | 0.28 J | 3.9 | 1.4 J |
| 1,2,4-Trimethylbenzene | 0.79 | 0.42 J | 3.9 | 2.1 J |

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**Client Sample ID: BSIA-5 (2014)**

**Lab ID#: 1412151AR1-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121611r1** | **Date of Collection:** | **12/8/14 3:55:00 PM** |
| **Dil. Factor:** | **7.90** | **Date of Analysis:** | **12/16/14 03:27 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 4.0 | Not Detected | 20 | Not Detected |
| Freon 114 | 0.79 | Not Detected | 5.5 | Not Detected |
| Chloromethane | 4.0 | 0.93 J | 8.2 | 1.9 J |
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.79 | Not Detected | 1.7 | Not Detected |
| Bromomethane | 4.0 | Not Detected | 15 | Not Detected |
| Chloroethane | 4.0 | Not Detected | 10 | Not Detected |
| Freon 11 | 0.79 | Not Detected | 4.4 | Not Detected |
| Ethanol | 4.0 | 1400 J0E | 7.4 | 2700 J0E |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Acetone | 4.0 | 590 E | 9.4 | 1400 E |
| 2-Propanol | 4.0 | 410 E | 9.7 | 1000 E |
| Carbon Disulfide | 4.0 | Not Detected | 12 | Not Detected |
| 3-Chloropropene | 4.0 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | 170 | 5.5 | 590 |
| Methyl tert-butyl ether | 0.79 | 3.7 | 2.8 | 13 |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Hexane | 0.79 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 4.0 | Not Detected | 12 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Tetrahydrofuran | 4.0 | 7.9 | 12 | 23 |
| Chloroform | 0.79 | 0.26 J | 3.8 | 1.3 J |
| 1,1,1-Trichloroethane | 0.79 | Not Detected | 4.3 | Not Detected |
| Cyclohexane | 0.79 | Not Detected | 2.7 | Not Detected |
| Carbon Tetrachloride | 0.79 | Not Detected | 5.0 | Not Detected |
| 2,2,4-Trimethylpentane | 4.0 | Not Detected | 18 | Not Detected |
| Benzene | 0.79 | 0.26 J | 2.5 | 0.85 J |
| 1,2-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.79 | 7.0 | 3.2 | 29 |
| Trichloroethene | 0.79 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichloropropane | 0.79 | Not Detected | 3.6 | Not Detected |
| 1,4-Dioxane | 0.79 | Not Detected | 2.8 | Not Detected |
| Bromodichloromethane | 0.79 | Not Detected | 5.3 | Not Detected |
| cis-1,3-Dichloropropene | 0.79 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.79 | 160 | 3.2 | 660 |
| Toluene | 0.79 | 340 E | 3.0 | 1300 E |
| trans-1,3-Dichloropropene | 0.79 | Not Detected | 3.6 | Not Detected |
| 1,1,2-Trichloroethane | 0.79 | Not Detected | 4.3 | Not Detected |
| Tetrachloroethene | 0.79 | Not Detected | 5.4 | Not Detected |
| 2-Hexanone | 4.0 | Not Detected | 16 | Not Detected |

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**Client Sample ID: BSIA-5 (2014)**

**Lab ID#: 1412151AR1-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121611r1** | **Date of Collection:** | **12/8/14 3:55:00 PM** |
| **Dil. Factor:** | **7.90** | **Date of Analysis:** | **12/16/14 03:27 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.79 | Not Detected | 6.7 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.79 | Not Detected | 6.1 | Not Detected |
| Chlorobenzene | 0.79 | Not Detected | 3.6 | Not Detected |
| Ethyl Benzene | 0.79 | 47 | 3.4 | 200 |
| m,p-Xylene | 0.79 | 160 | 3.4 | 710 |
| o-Xylene | 0.79 | 15 | 3.4 | 63 |
| Styrene | 0.79 | 0.96 | 3.4 | 4.1 |
| Bromoform | 0.79 | Not Detected | 8.2 | Not Detected |
| Cumene | 0.79 | Not Detected | 3.9 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.79 | Not Detected | 5.4 | Not Detected |
| Propylbenzene | 0.79 | Not Detected | 3.9 | Not Detected |
| 4-Ethyltoluene | 0.79 | 0.28 J | 3.9 | 1.4 J |
| 1,3,5-Trimethylbenzene | 0.79 | Not Detected | 3.9 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.79 | 0.42 J | 3.9 | 2.1 J |
| 1,3-Dichlorobenzene | 0.79 | Not Detected UJ | 4.8 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.79 | Not Detected UJ | 4.8 | Not Detected UJ |
| alpha-Chlorotoluene | 4.0 | Not Detected UJ | 20 | Not Detected UJ |
| 1,2-Dichlorobenzene | 0.79 | Not Detected UJ | 4.7 | Not Detected UJ |
| 1,2,4-Trichlorobenzene | 4.0 | Not Detected | 29 | Not Detected |
| Hexachlorobutadiene | 4.0 | Not Detected UJ | 42 | Not Detected UJ |
| Naphthalene | 4.0 | Not Detected | 21 | Not Detected |

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: 6 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

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TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121611r1.d
Lab Smp Id: 1412151AR1-01A
Inj Date : 16-DEC-2014 15:27
Operator : sn Inst ID: msdv.i
Smp Info : 50ml #34723
Misc Info : 4.5"Hg -> 5.0psi
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 7.90000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.933 (1.000) | 130 | 99199 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 79459 | | | 47.55- 107.55 | 80.10 |
| 15.933 | 15.933 (1.000) | 49 | 255301 | | | 213.64- 273.64 | 257.36 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 424896 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 74936 | | | 0.00- 46.17 | 17.64 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 338964 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 210369 | | | 28.56- 88.56 | 62.06 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 183205 | 5.03224 | 5.032 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 94382 | | | 28.37- 88.37 | 51.52 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.856 | 19.879 (1.147) | 98 | 428926 | 5.25055 | 5.250 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 55290 | | | 0.00- 41.90 | 12.89 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.856  19.879 (1.147)   100    277545                    34.60-  94.60    64.71
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    137643 4.72180    4.722  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    202843                  113.85- 173.85   147.37
 23.704  23.704 (1.067)   176    140525                    68.89- 128.89   102.09
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.090   7.052 (0.445)    50      6620 0.11820   0.9338  80.00- 120.00   100.00
  7.015   7.052 (0.440)    52      1180                     1.81-  61.81    17.82
-------------------------------------------------------------------------------
   24 Ethanol                                       CAS #: 64-17-5
 12.074  12.101 (0.758)    45   3731202 183.990   1453.5  80.00- 120.00   100.00(A)
 12.074  12.101 (0.758)    46   1445228                     8.51-  68.51    38.73
 12.074  12.101 (0.758)    43    763331                     0.00-  54.10    20.46
-------------------------------------------------------------------------------
   31 Acetone                                       CAS #: 67-64-1
 12.816  12.816 (0.804)    58   1764521 75.2858   594.76  80.00- 120.00   100.00(A)
 12.816  12.816 (0.804)    43   7861915                  413.15- 473.15   445.56
-------------------------------------------------------------------------------
   34 2-Propanol                                    CAS #: 67-63-0
 13.173  13.173 (0.827)    45   5628539 51.8613   409.70  80.00- 120.00   100.00(A)
 13.173  13.173 (0.827)    43   1078528                     0.00-  50.74    19.16
 13.173  13.173 (0.827)    59    163236                     0.00-  32.83     2.90
-------------------------------------------------------------------------------
   37 Methylene Chloride                            CAS #: 75-09-2
 13.640  13.640 (0.856)    84    644236 21.3621   168.76  80.00- 120.00   100.00
 13.640  13.640 (0.856)    49   1524147                  212.37- 272.37   236.58
 13.640  13.640 (0.856)    51    443768                    43.31- 103.31    68.88
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.996  13.996 (0.878)    73     50320 0.46507    3.674  80.00- 120.00   100.00
 13.996  13.996 (0.878)    57     17716                     2.99-  62.99    35.21
 13.996  13.996 (0.878)    41     21495                    12.12-  72.12    42.72
-------------------------------------------------------------------------------
   53 Tetrahydrofuran                               CAS #: 109-99-9
 15.933  15.933 (1.000)    42     89721 0.99806    7.885  80.00- 120.00   100.00
 15.933  15.933 (1.000)    71     18530                     0.00-  49.03    20.65
 15.933  15.933 (1.000)    72     18094                     0.00-  51.35    20.17
-------------------------------------------------------------------------------
   55 Chloroform                                    CAS #: 67-66-3
 15.995  15.995 (1.004)    83      2790 0.03337   0.2636  80.00- 120.00   100.00(a)
 15.995  15.995 (1.004)    85      1616                    33.33-  93.33    57.92
-------------------------------------------------------------------------------
   64 Benzene                                       CAS #: 71-43-2
 16.756  16.756 (0.968)    78      4206 0.03354   0.2650  80.00- 120.00   100.00(a)
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 64 Benzene (continued) | | | | | | | |
| 16.783 | 16.756 (0.970) | 77 | 1063 | | | 0.00- 53.73 | 25.27 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.948 (0.981) | 57 | 48003 | 0.88826 | 7.017 | 80.00- 120.00 | 100.00 |
| 16.975 | 16.948 (0.981) | 100 | 10301 | | | 0.00- 51.27 | 21.46 |
| 16.975 | 16.948 (0.981) | 43 | 130872 | | | 235.24- 295.24 | 272.63 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 3614098 | 20.4202 | 161.32 | 80.00- 120.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 958060 | | | 0.00- 57.24 | 26.51 |
| 19.587 | 19.587 (1.132) | 85 | 301481 | | | 0.00- 38.20 | 8.34 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 6014361 | 43.4541 | 343.29 | 80.00- 120.00 | 100.00(A) |
| 19.991 | 19.991 (1.155) | 92 | 3474515 | | | 28.60- 88.60 | 57.77 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 296518 | 5.93494 | 46.886 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 943405 | | | 292.36- 352.36 | 318.16 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 1015569 | 20.6144 | 162.85 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 2102126 | | | 164.15- 224.15 | 206.99 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.001 | 23.001 (1.036) | 106 | 84751 | 1.84875 | 14.605 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 184063 | | | 186.63- 246.63 | 217.18 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 8107 | 0.12088 | 0.9550 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.029 (1.036) | 78 | 16344 | | | 28.70- 88.70 | 201.60 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.013 | 24.039 (1.081) | 105 | 3081 | 0.03537 | 0.2794 | 80.00- 120.00 | 100.00(aH) |
| 24.013 | 24.039 (1.081) | 120 | 617 | | | 0.18- 60.18 | 20.03 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 3129 | 0.05312 | 0.4196 | 80.00- 120.00 | 100.00(a) |
| 24.529 | 24.529 (1.105) | 120 | 1378 | | | 19.27- 79.27 | 44.04 |

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121611r1.d
Lab Smp Id: 1412151AR1-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 4.5"Hg -> 5.0psi

Calibration Date: 16-DEC-2014
Calibration Time: 08:42

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 99199 | -9.59 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 424896 | -4.63 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 338964 | -6.13 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 16Dec2014
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1412151AR1-01A
Level: LOW Operator: sn
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 4.5"Hg -> 5.0psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.032 | 100.64 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.250 | 105.01 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.722 | 94.44 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

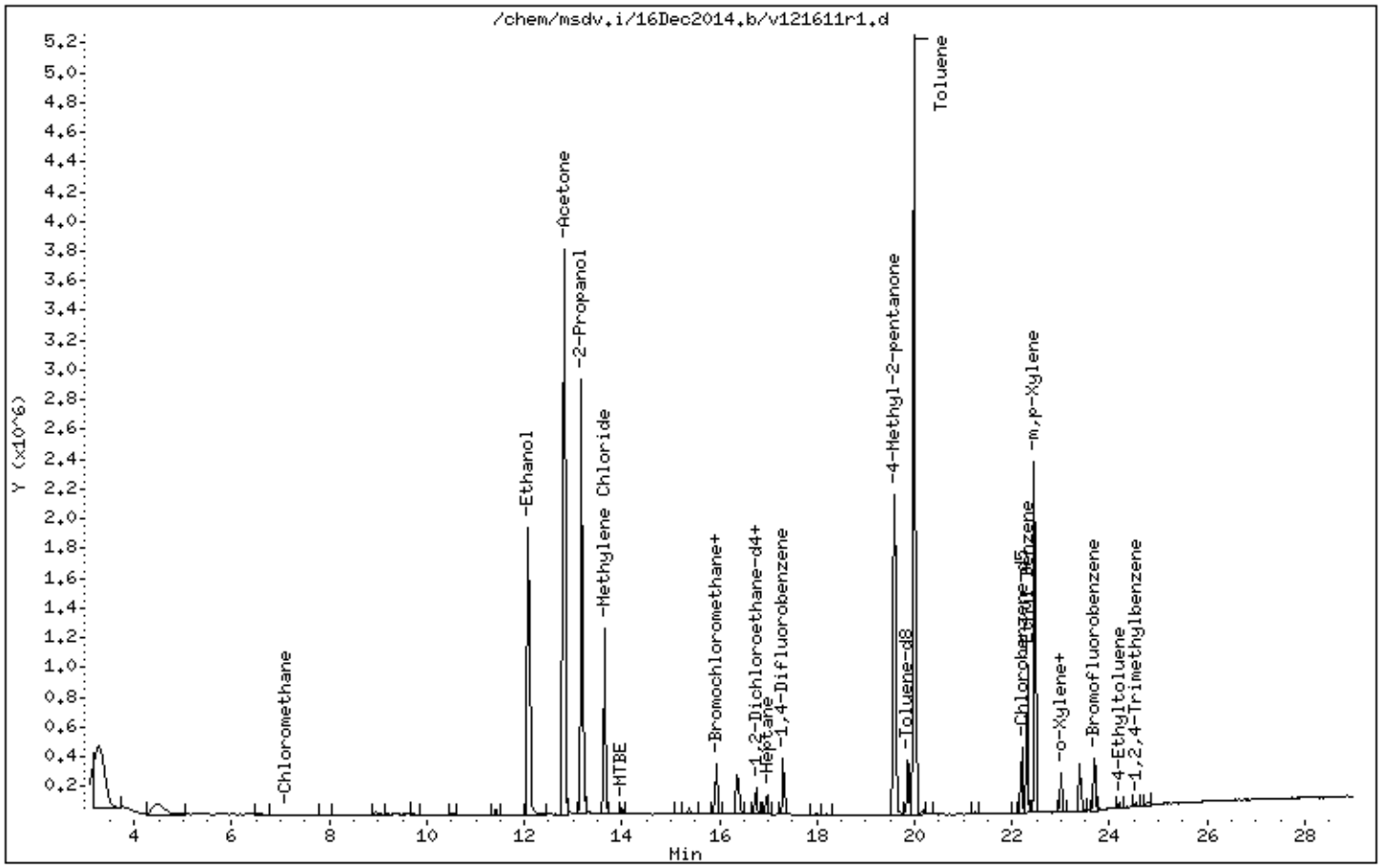
Instrument: msdv.i

Sample Info: 50ml #34723

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d

Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

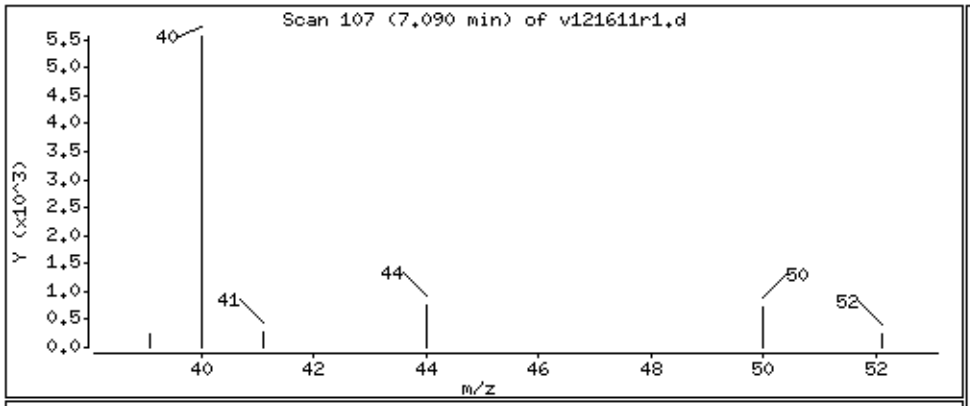
Operator: sn

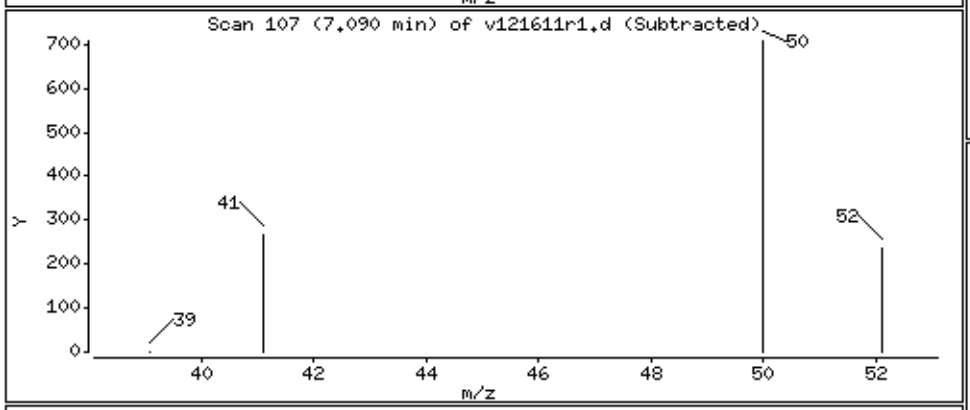
Column phase: RTx-624

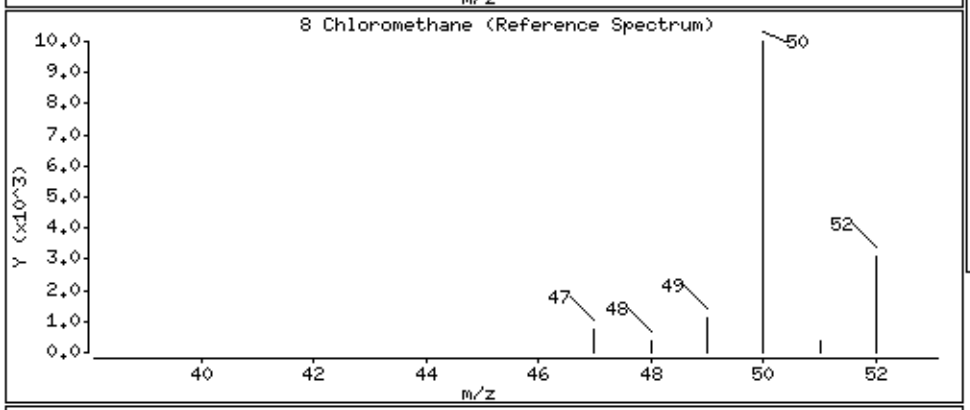
Column diameter: 0.32

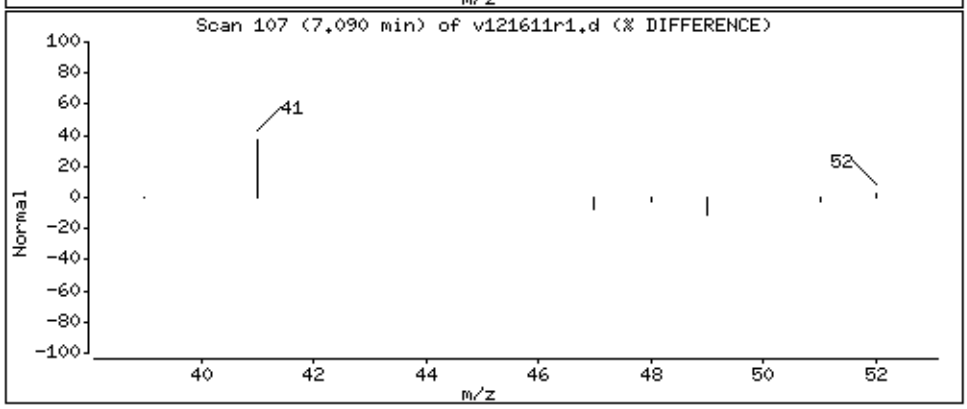
8 Chloromethane

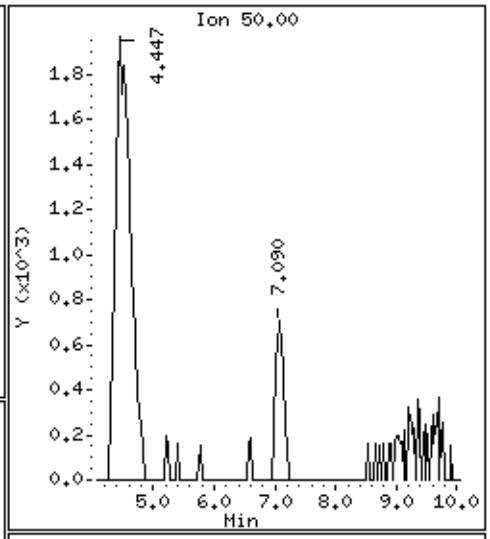
Concentration: 0.9338 PPBV

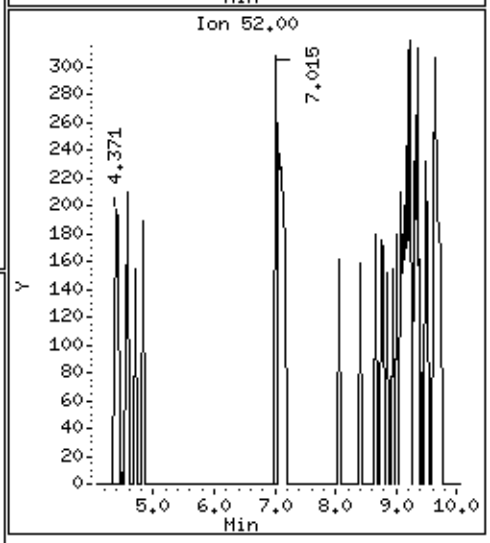


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

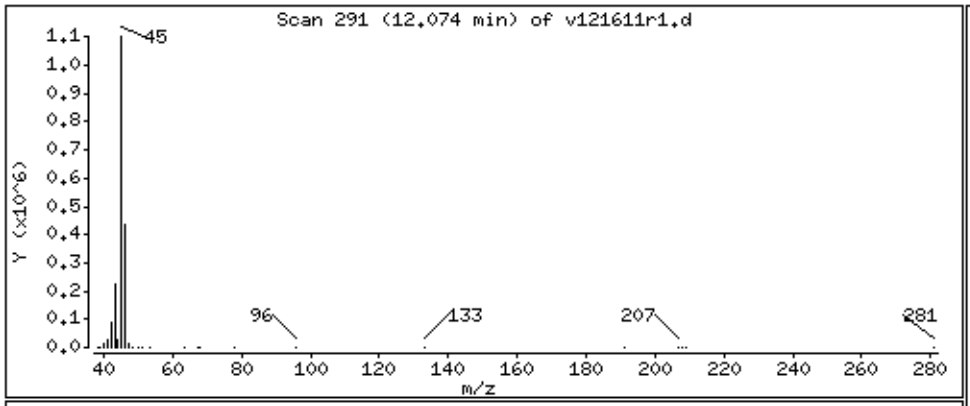
Operator: sn

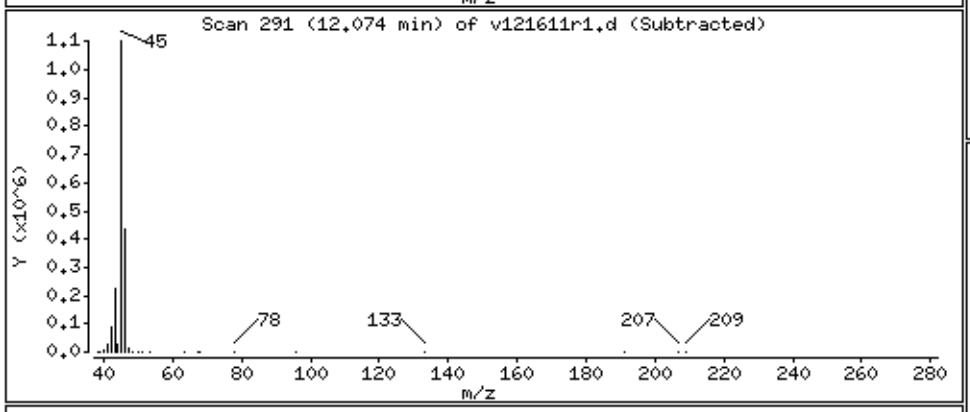
Column phase: RTx-624

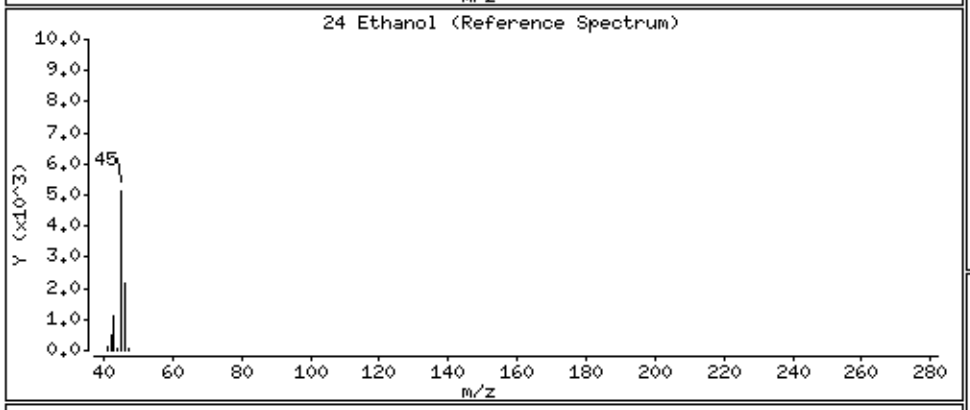
Column diameter: 0.32

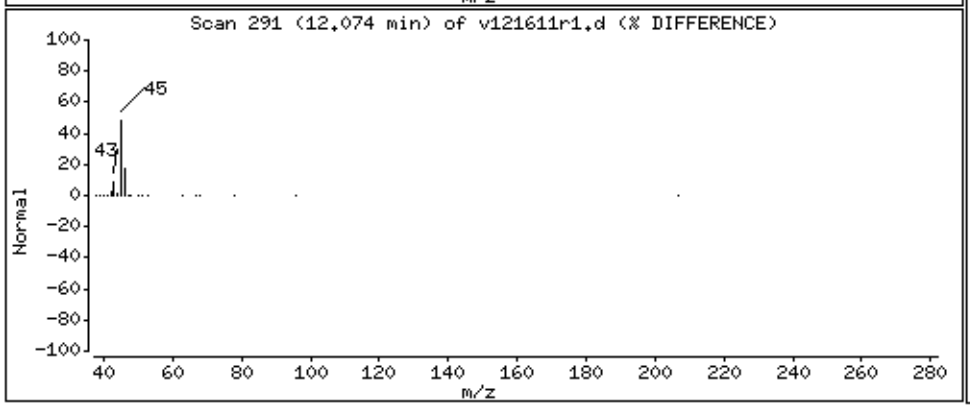
24 Ethanol

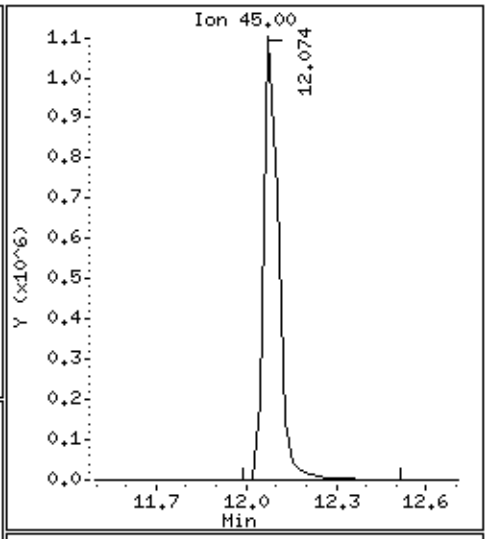
Concentration: 1453.5 PPBV

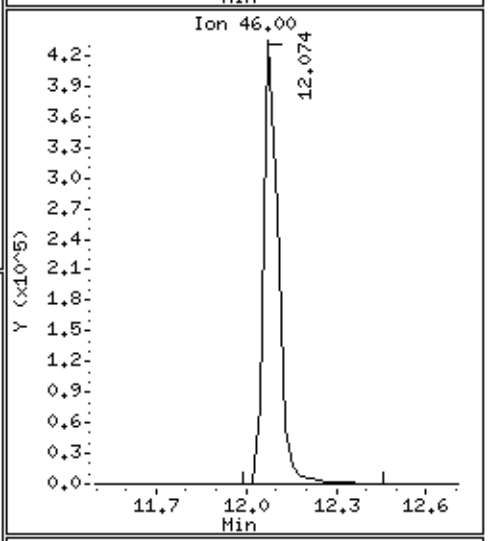


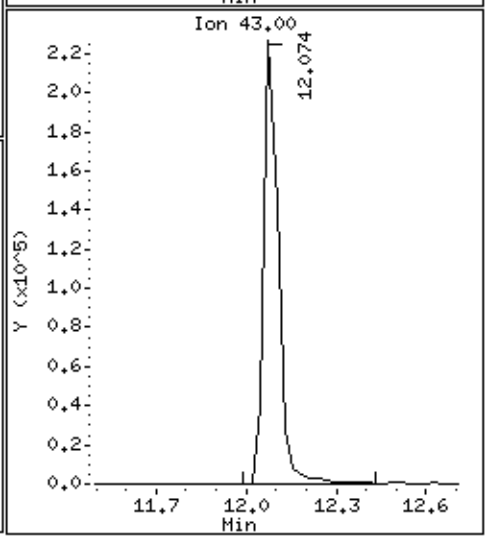



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

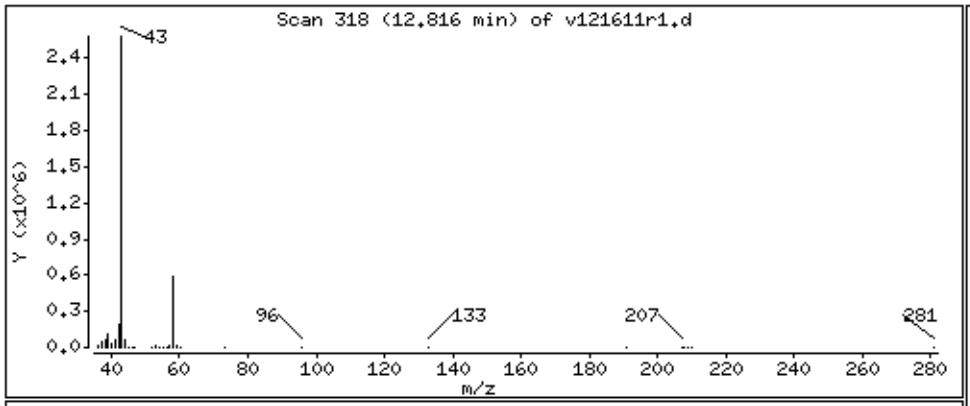
Operator: sn

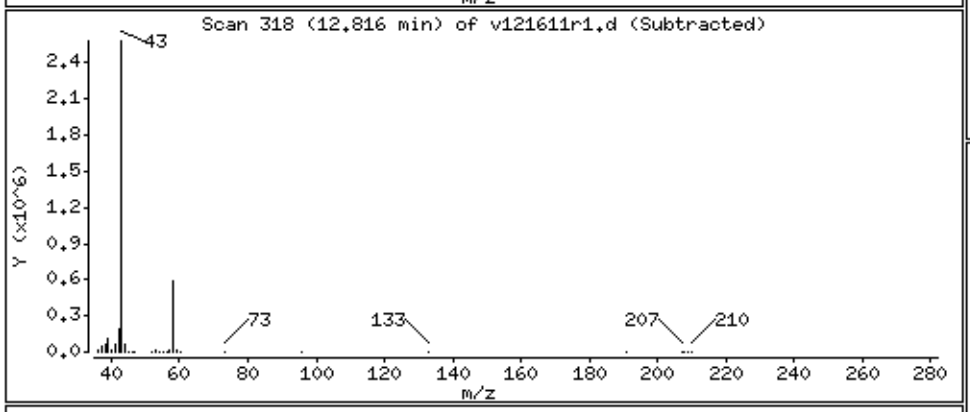
Column phase: RTx-624

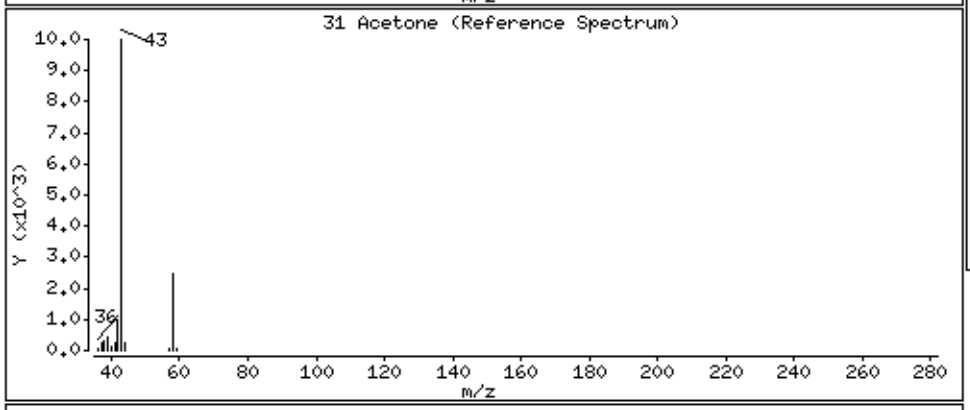
Column diameter: 0.32

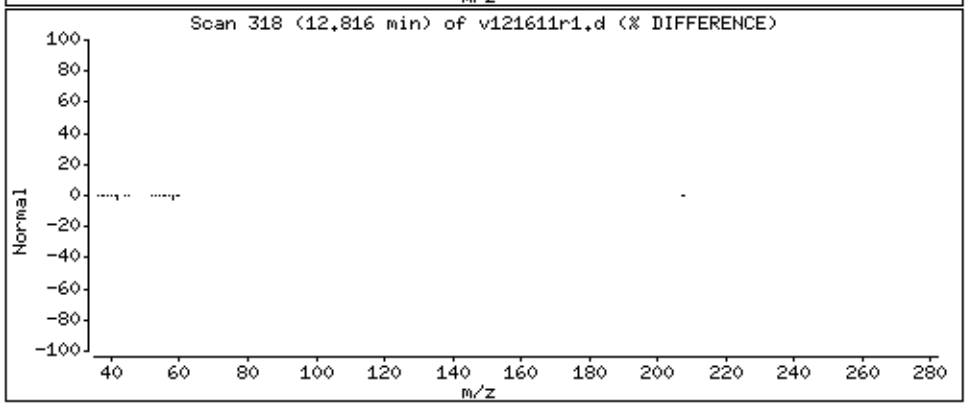
31 Acetone

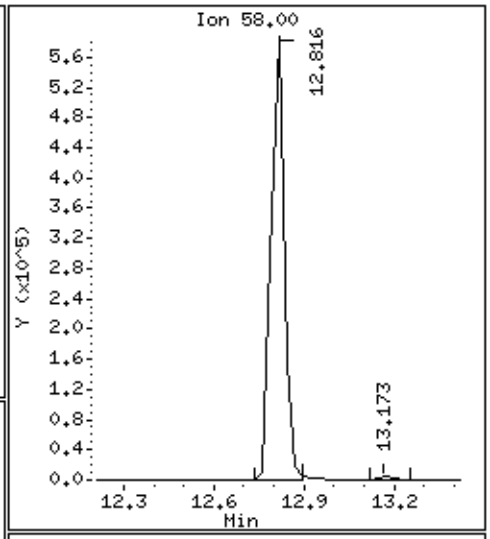
Concentration: 594.76 PPBV

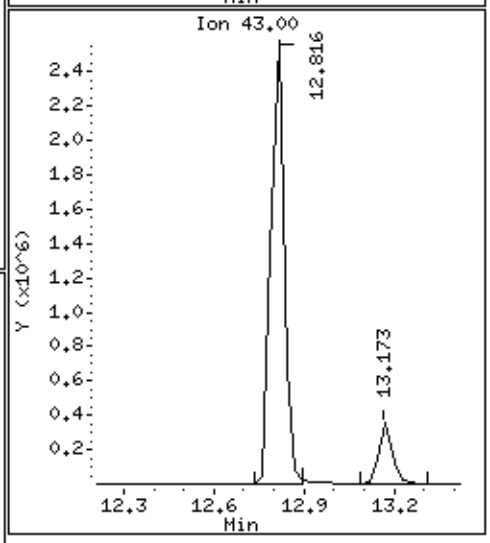


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

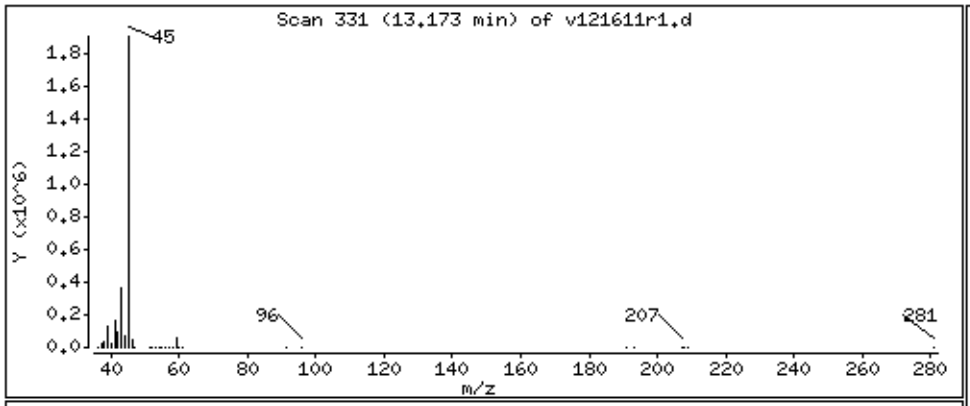
Operator: sn

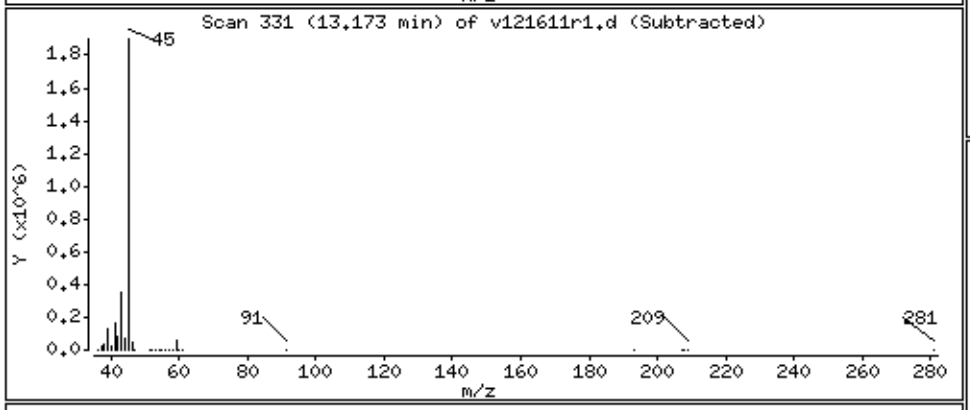
Column phase: RTx-624

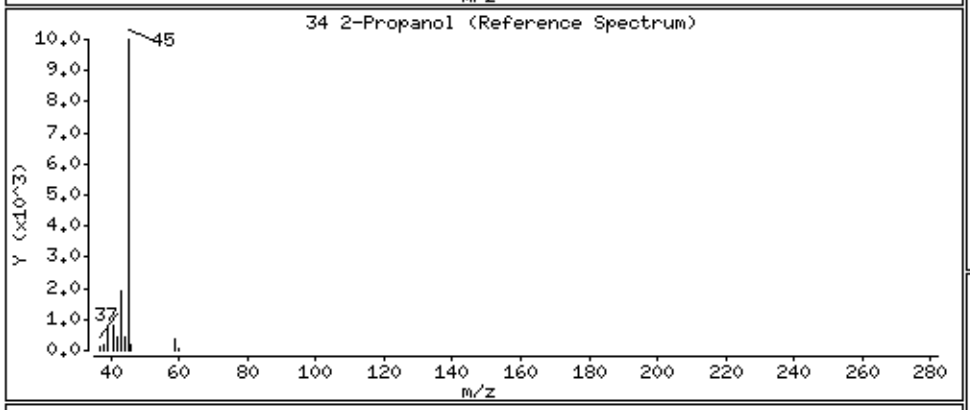
Column diameter: 0.32

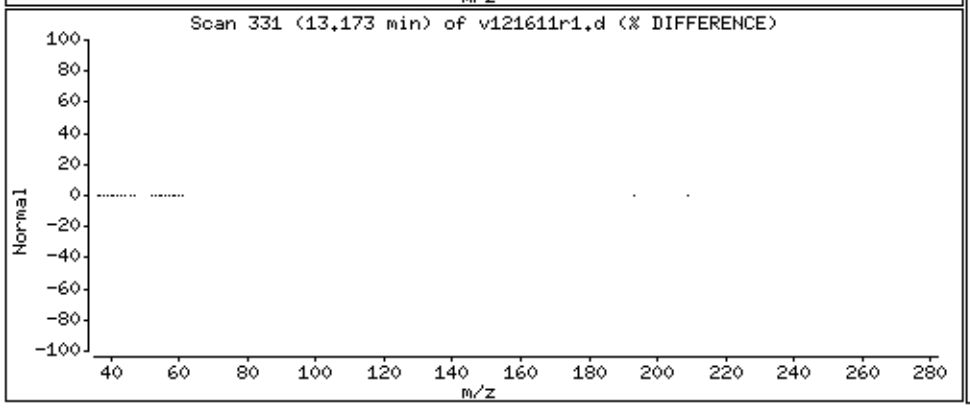
34 2-Propanol

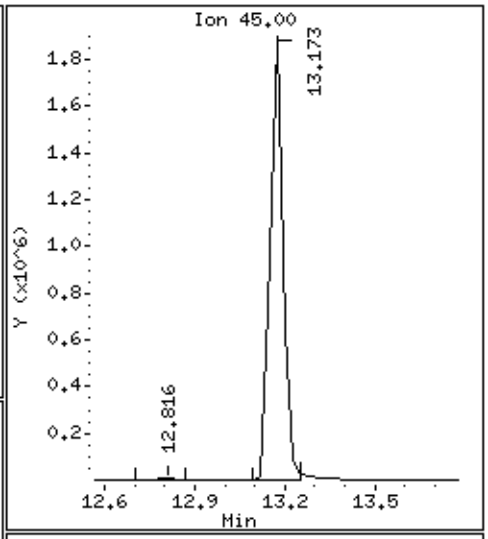
Concentration: 409.70 PPBV

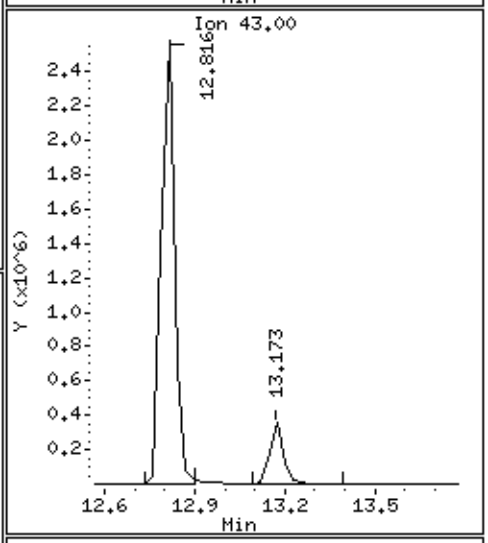


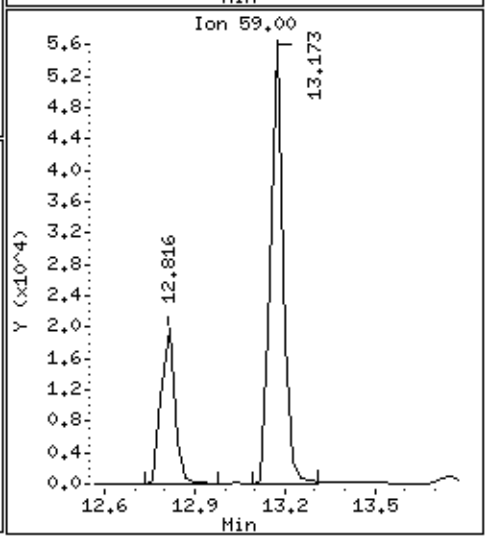



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

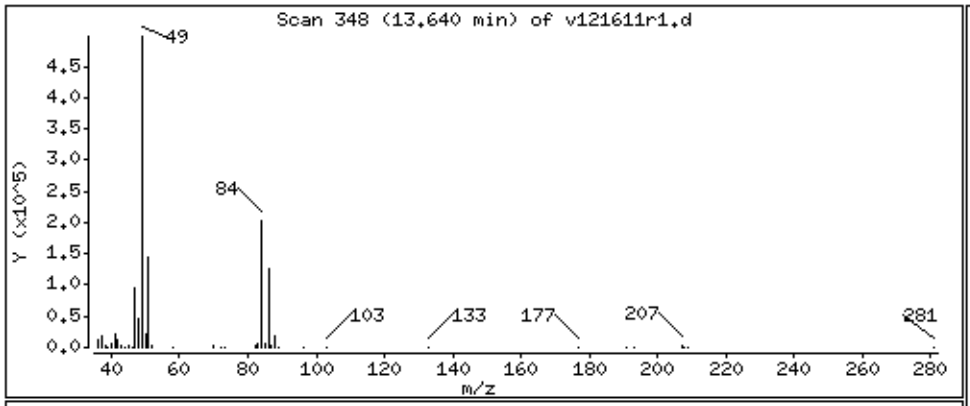
Operator: sn

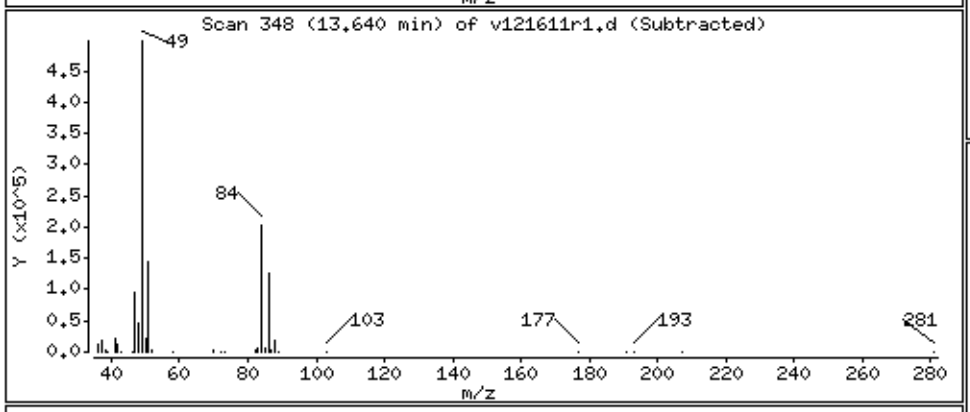
Column phase: RTx-624

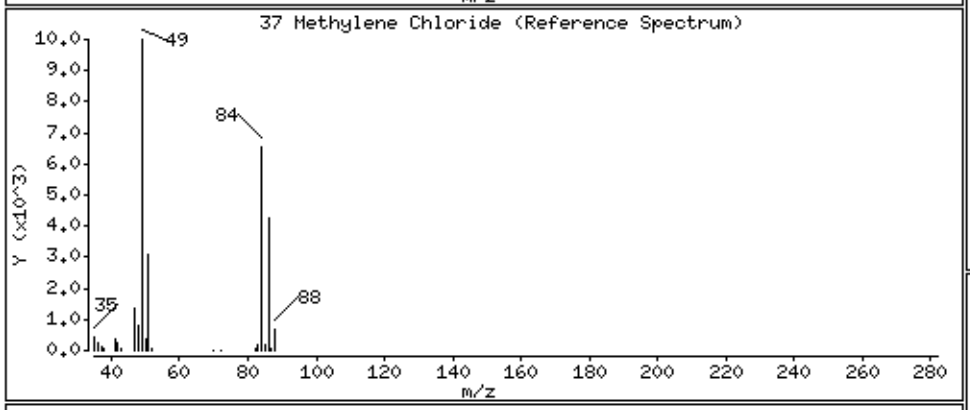
Column diameter: 0.32

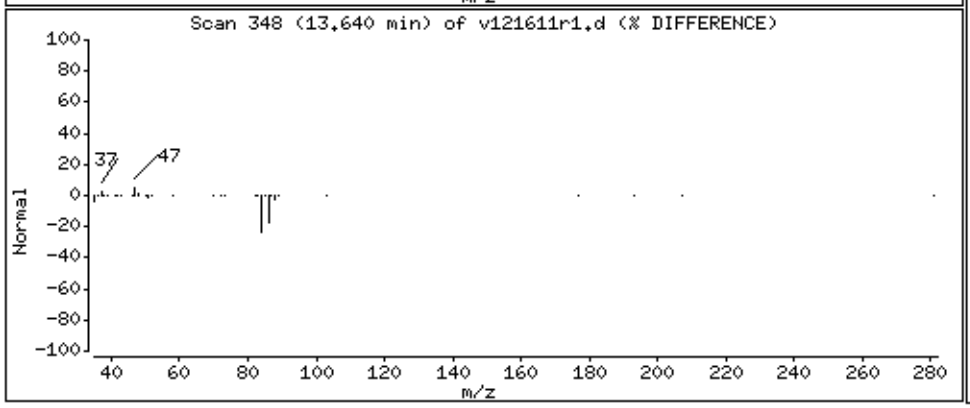
37 Methylene Chloride

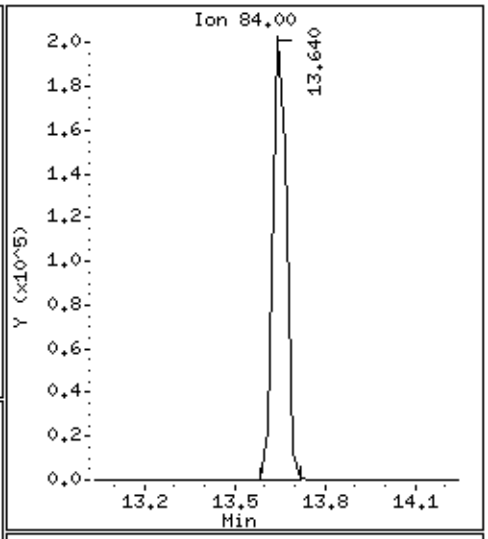
Concentration: 168.76 PPBV

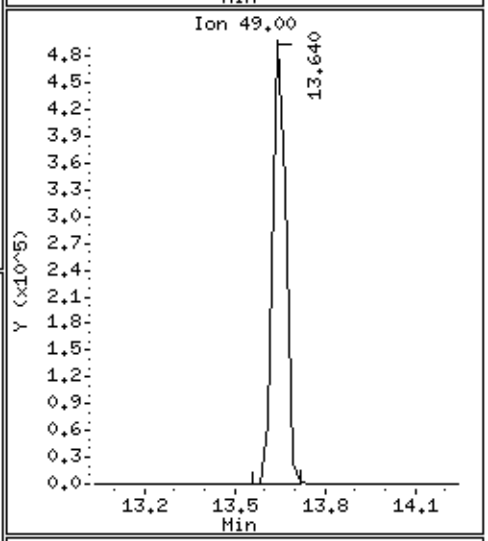


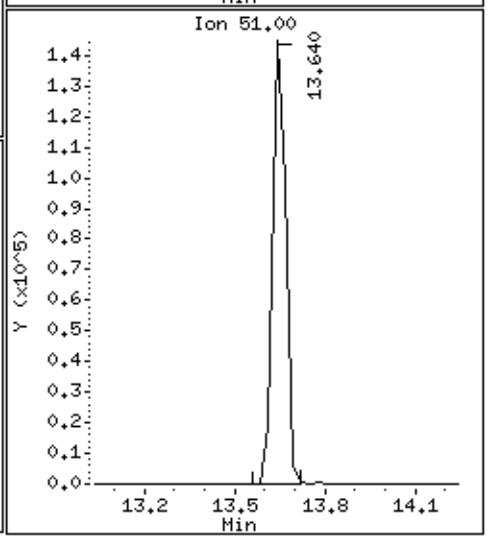



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

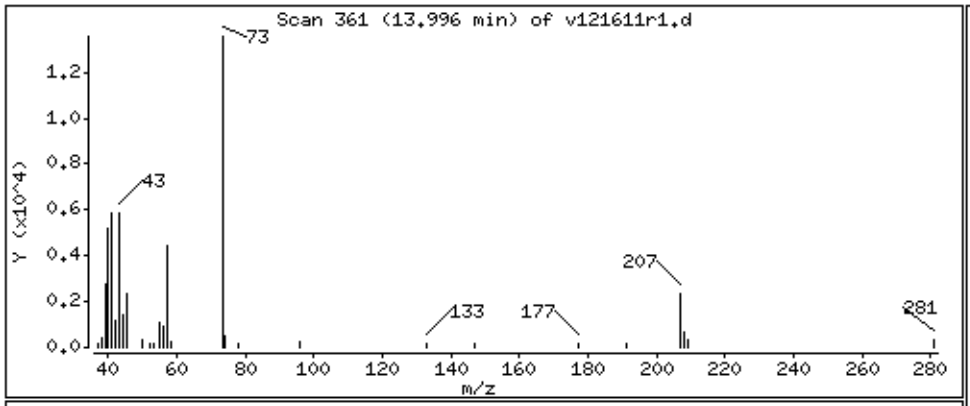
Operator: sn

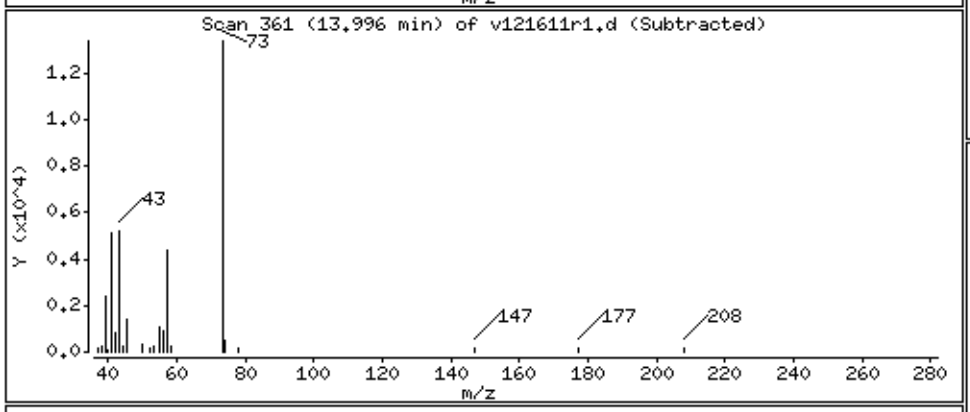
Column phase: RTx-624

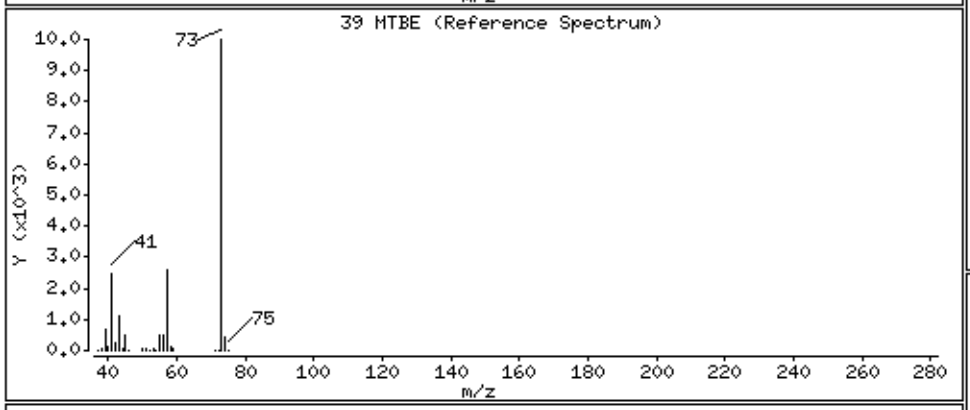
Column diameter: 0.32

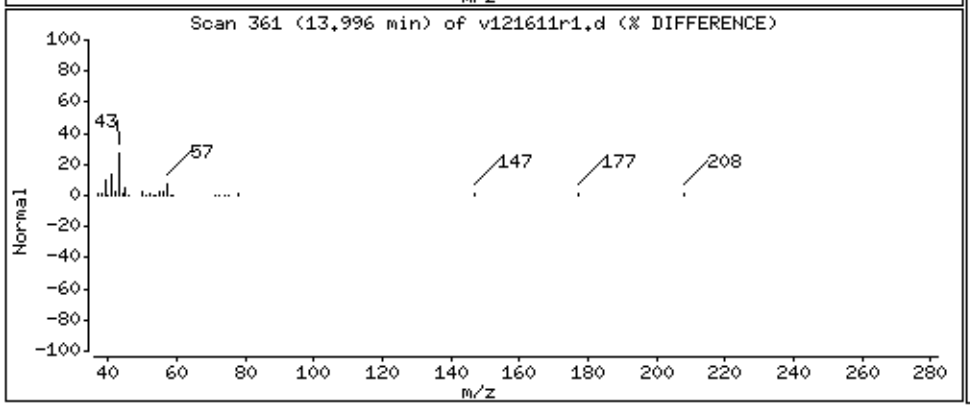
39 MTBE

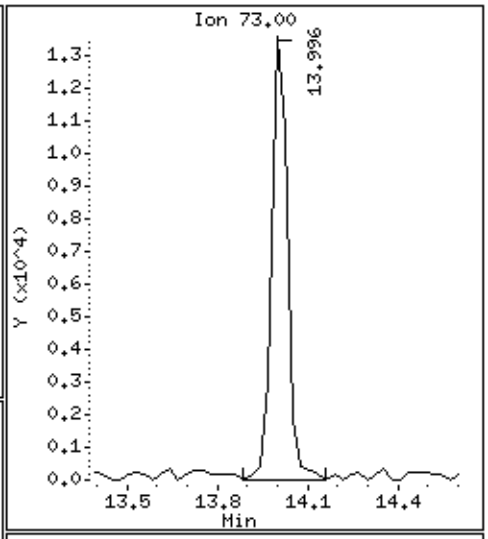
Concentration: 3.674 PPBV

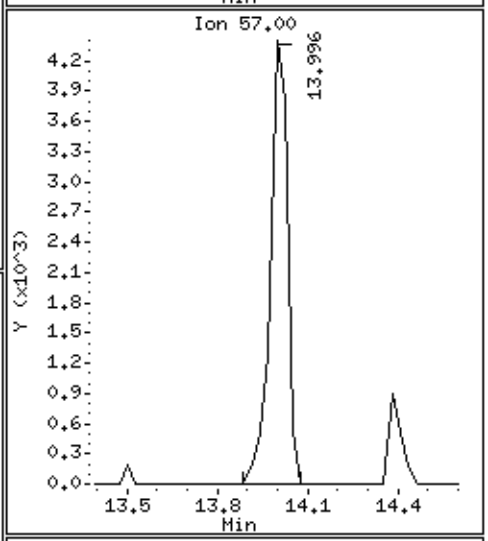


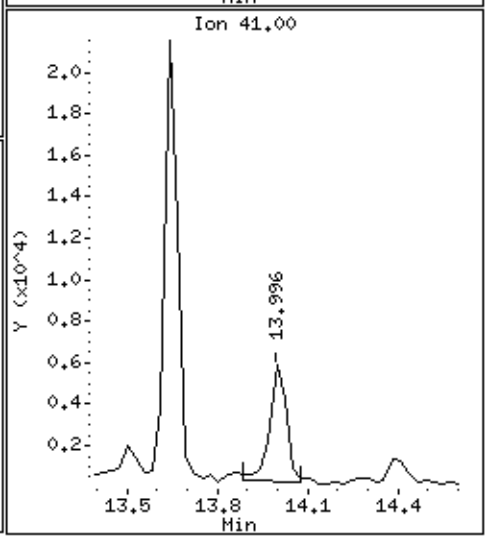



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

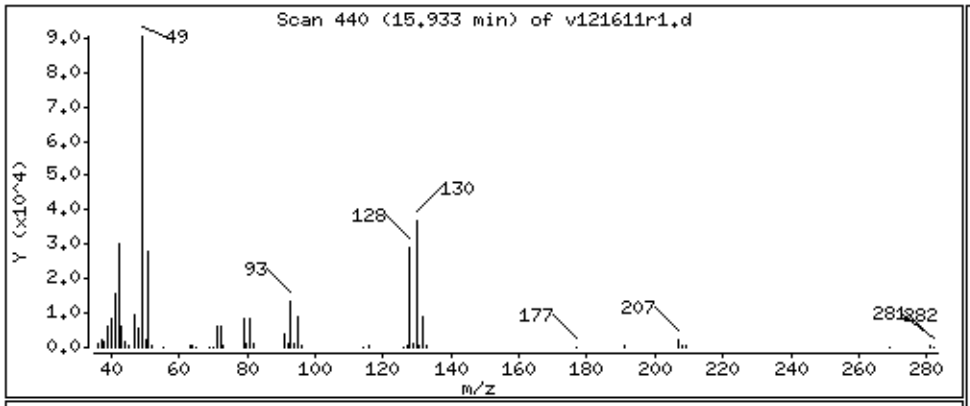
Operator: sn

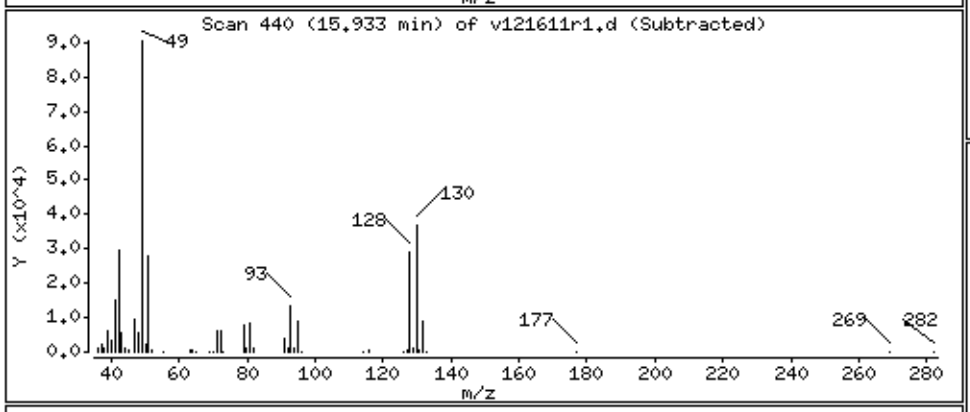
Column phase: RTx-624

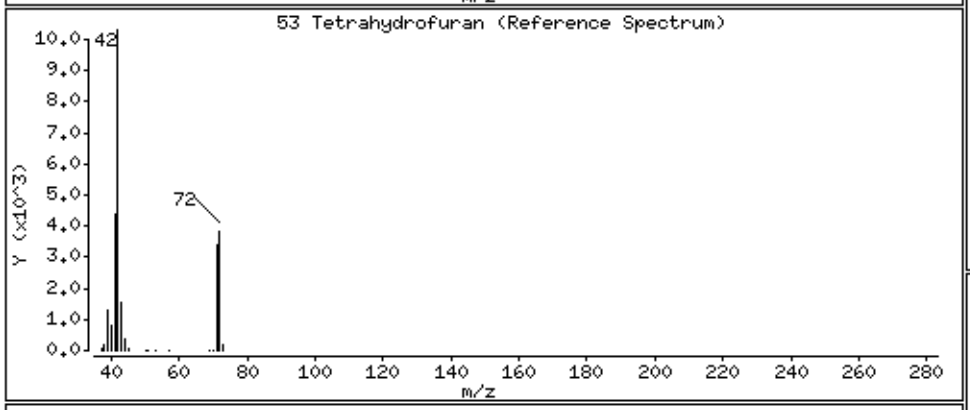
Column diameter: 0.32

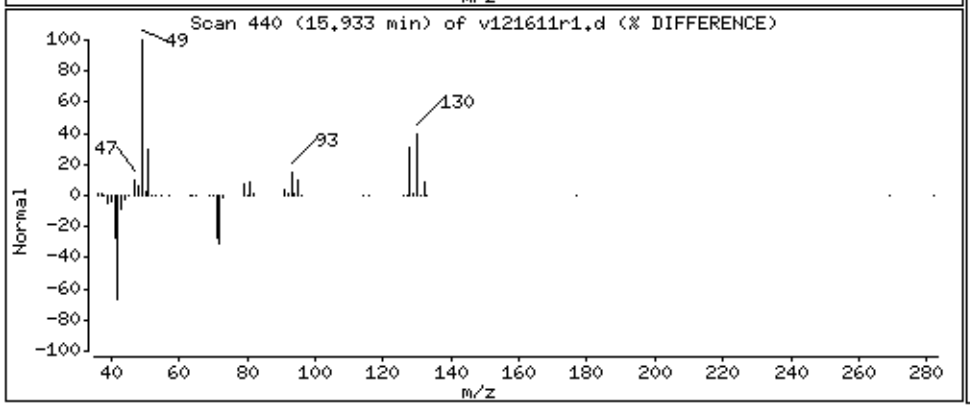
53 Tetrahydrofuran

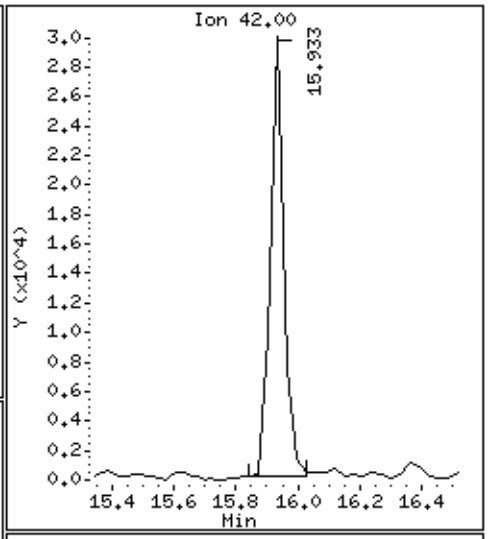
Concentration: 7.885 PPBV

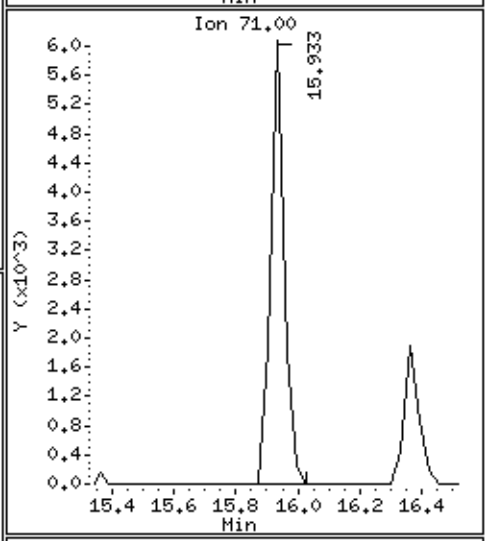


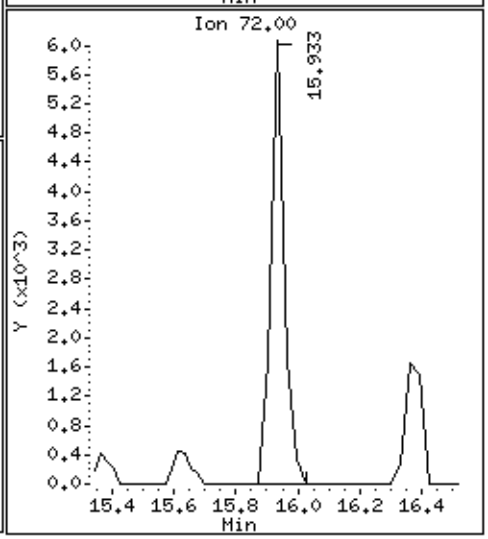



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

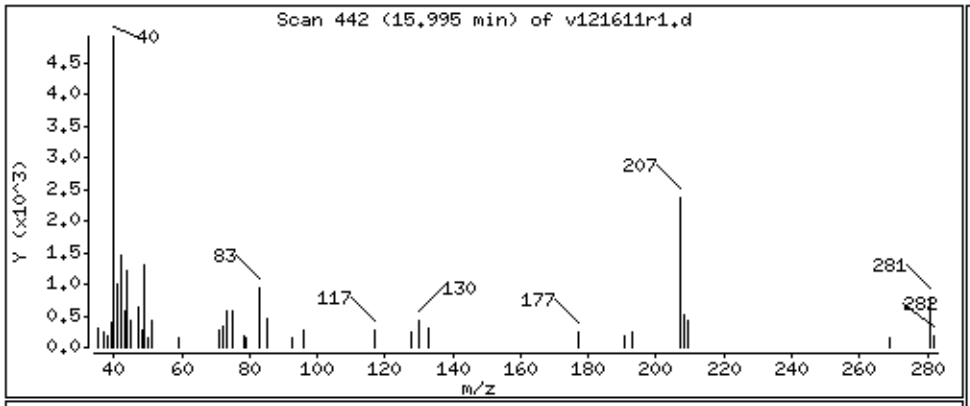
Operator: sn

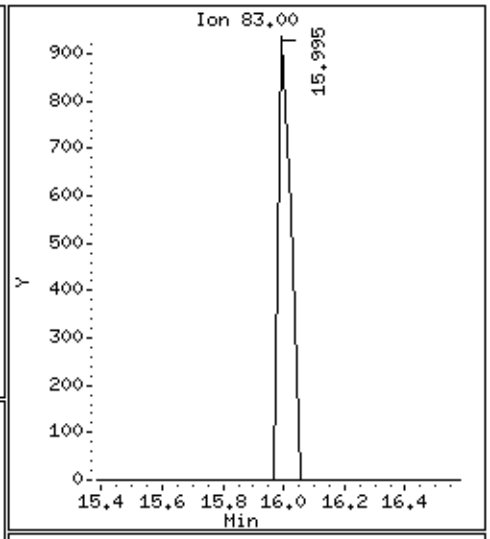
Column phase: RTx-624

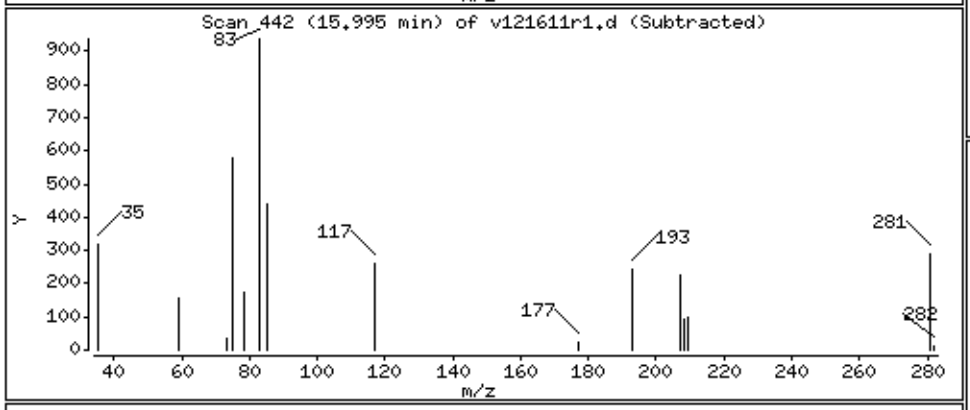
Column diameter: 0.32

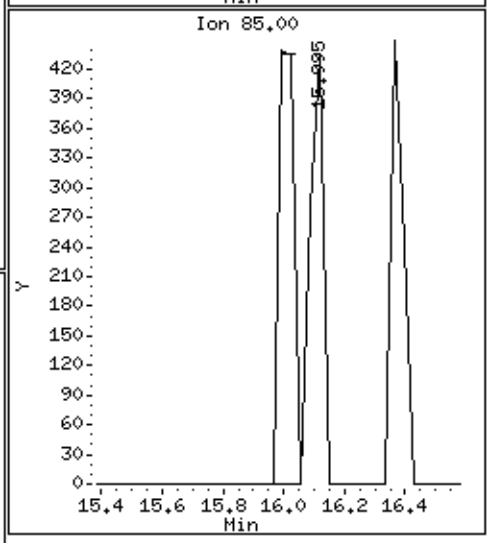
55 Chloroform

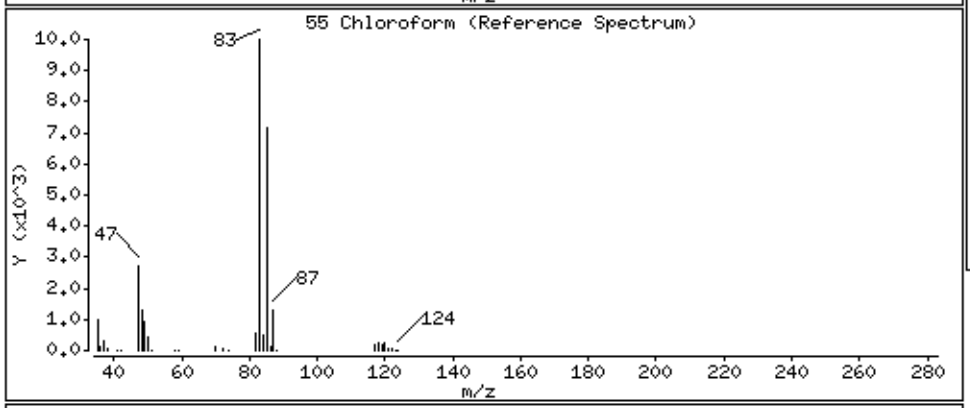
Concentration: 0.2636 PPBV

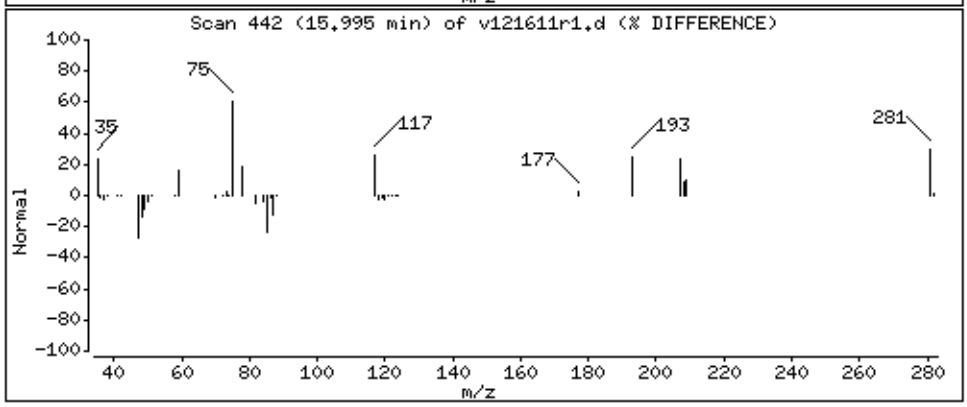


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

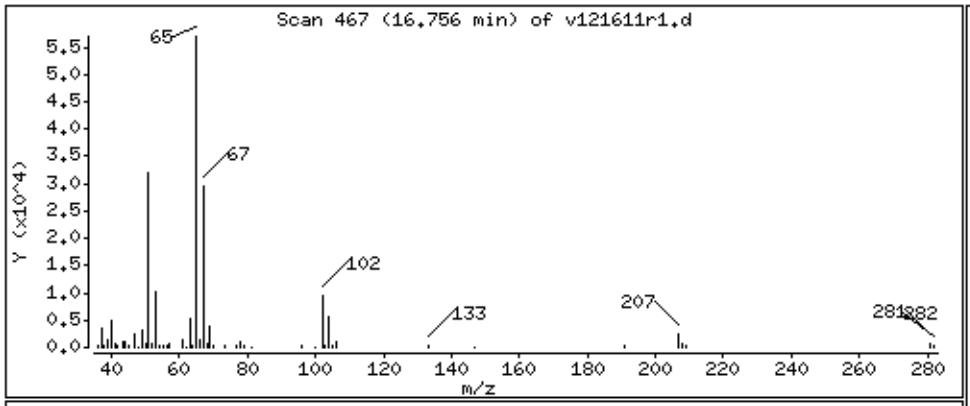
Operator: sn

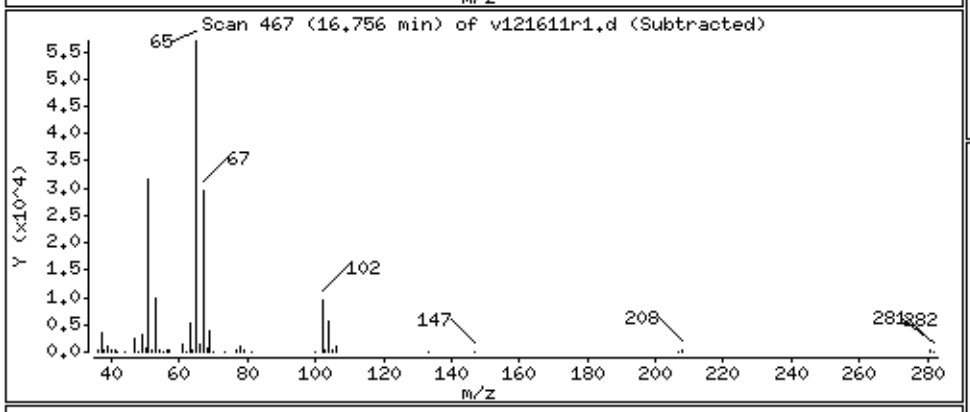
Column phase: RTx-624

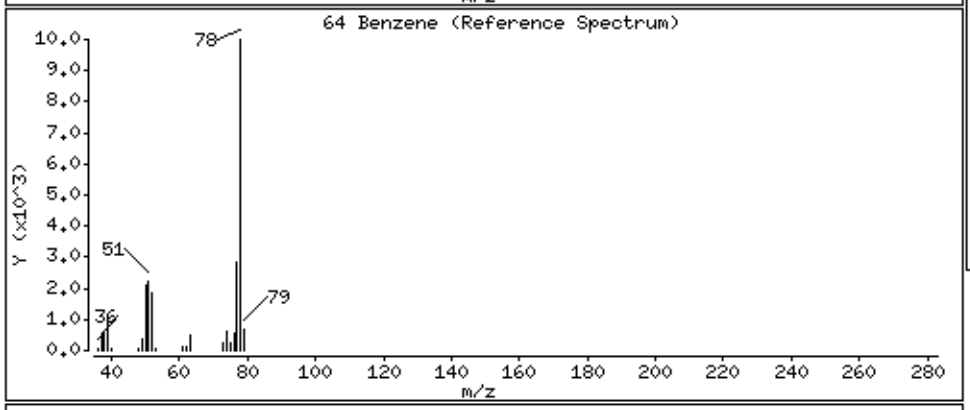
Column diameter: 0.32

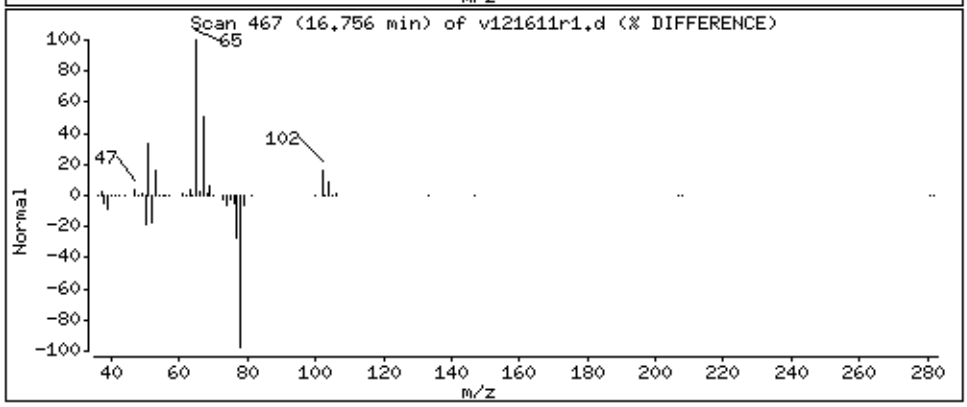
64 Benzene

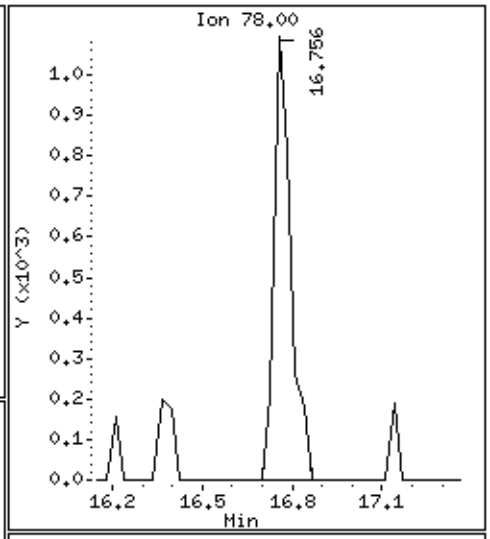
Concentration: 0.2650 PPBV

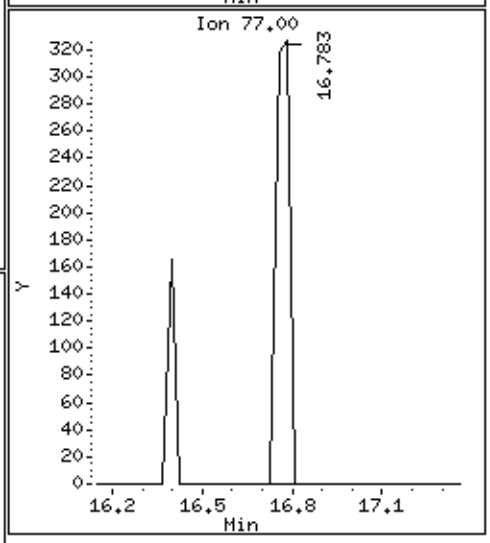


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

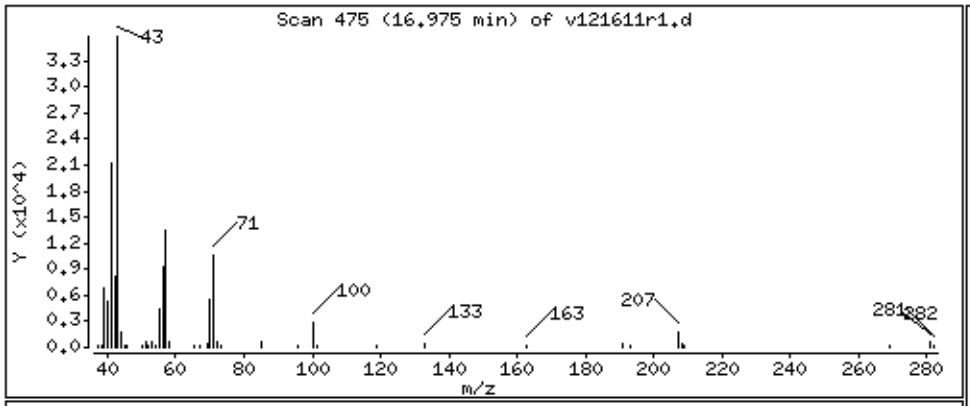
Operator: sn

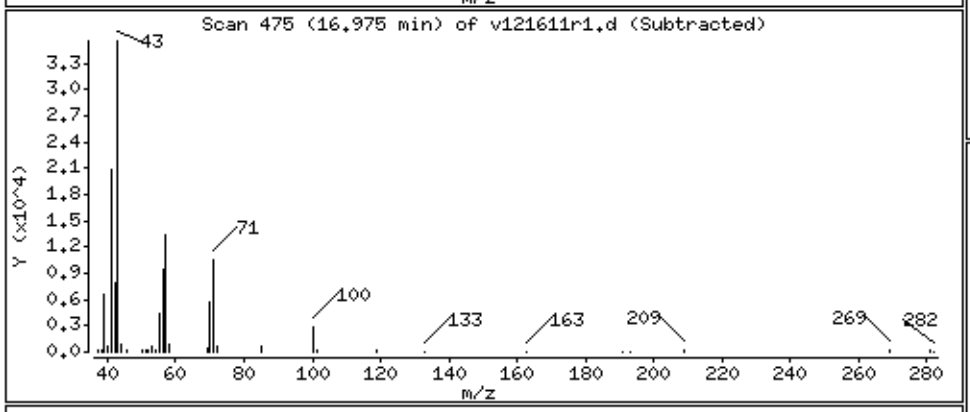
Column phase: RTx-624

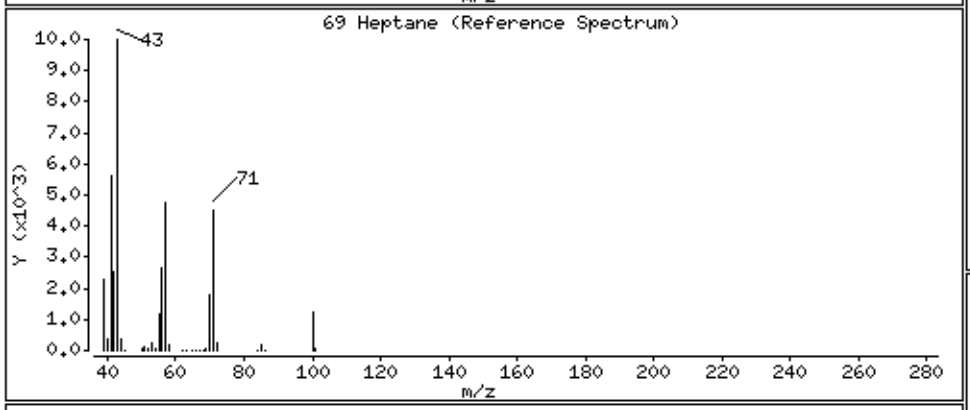
Column diameter: 0.32

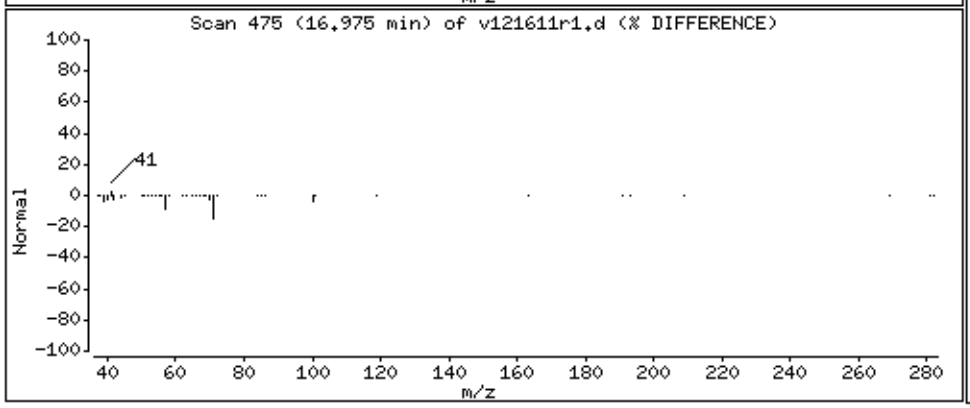
69 Heptane

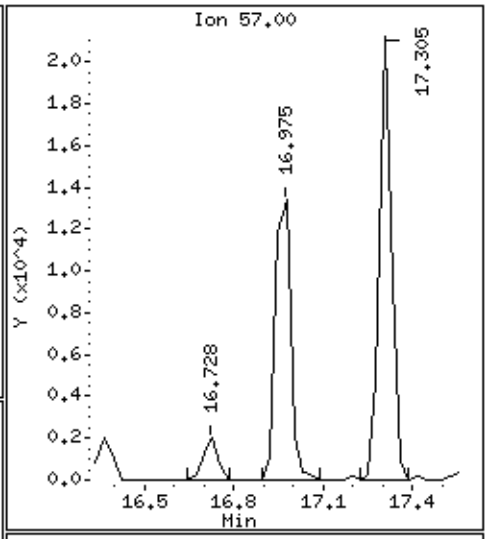
Concentration: 7.017 PPBV

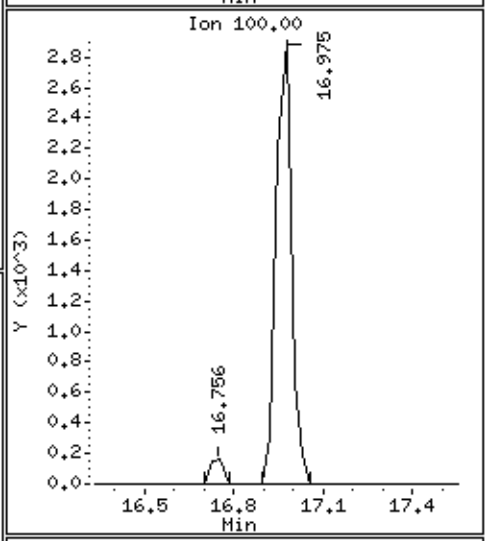


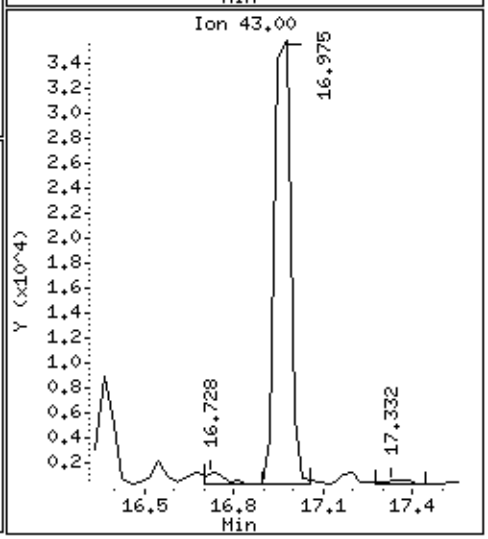



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

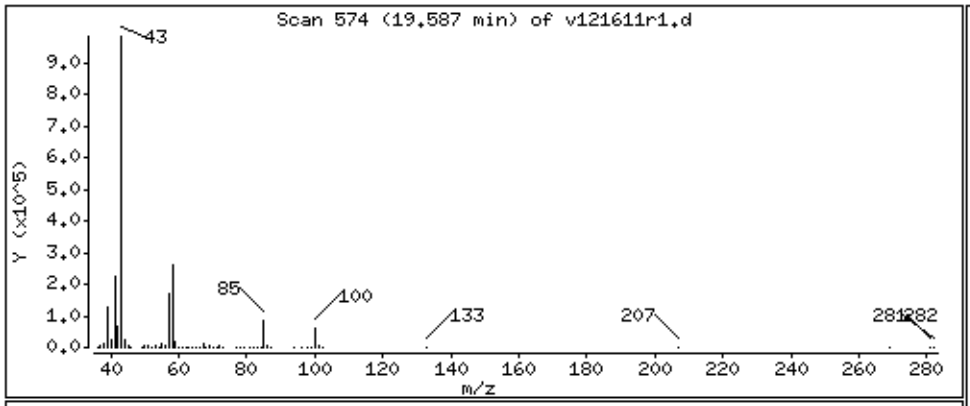
Operator: sn

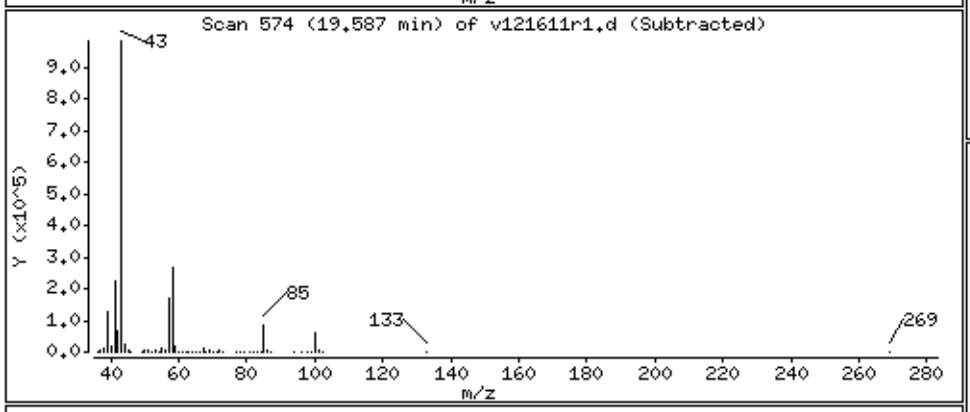
Column phase: RTx-624

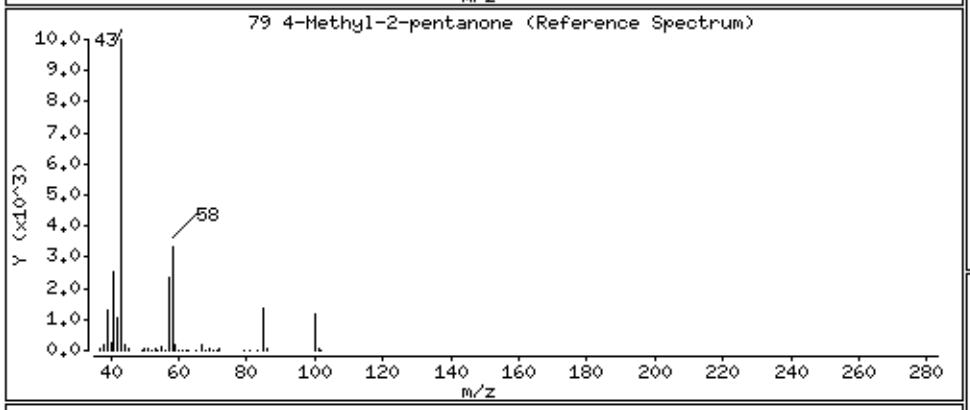
Column diameter: 0.32

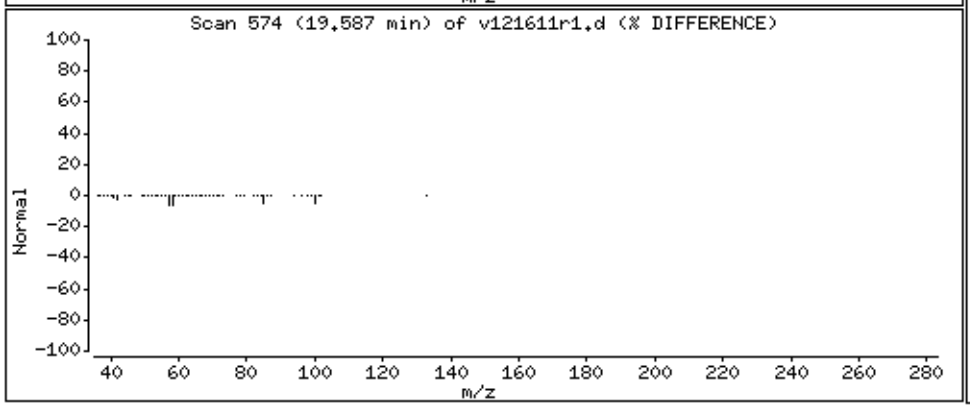
79 4-Methyl-2-pentanone

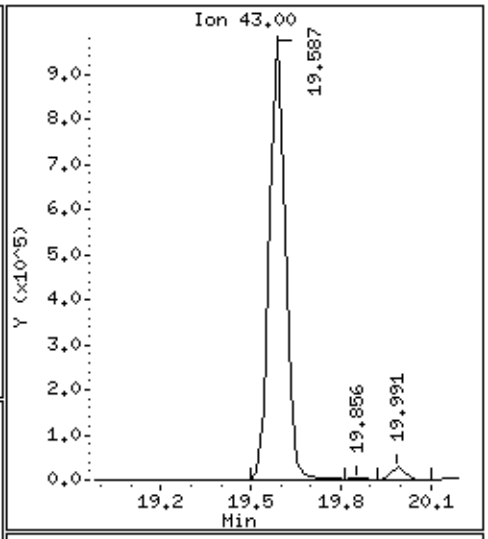
Concentration: 161.32 PPBV

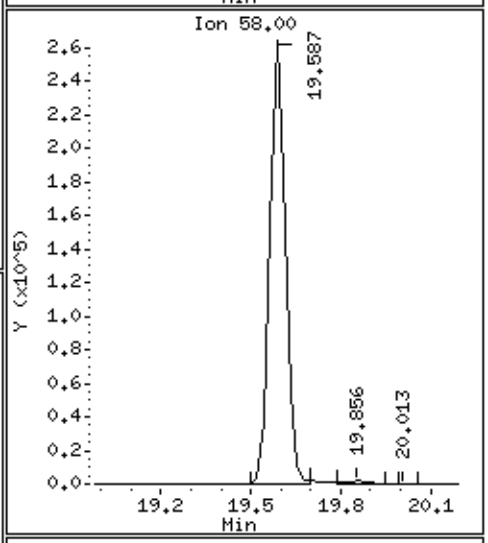


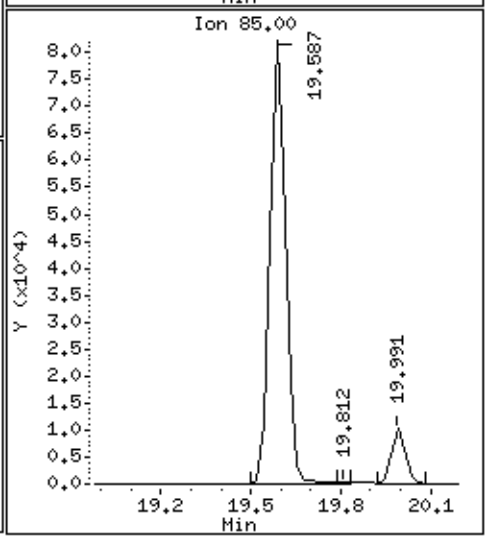



Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d

Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

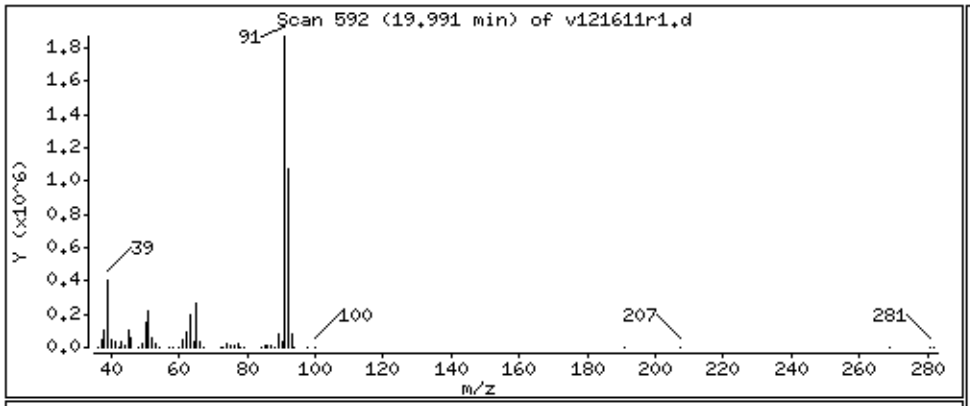
Operator: sn

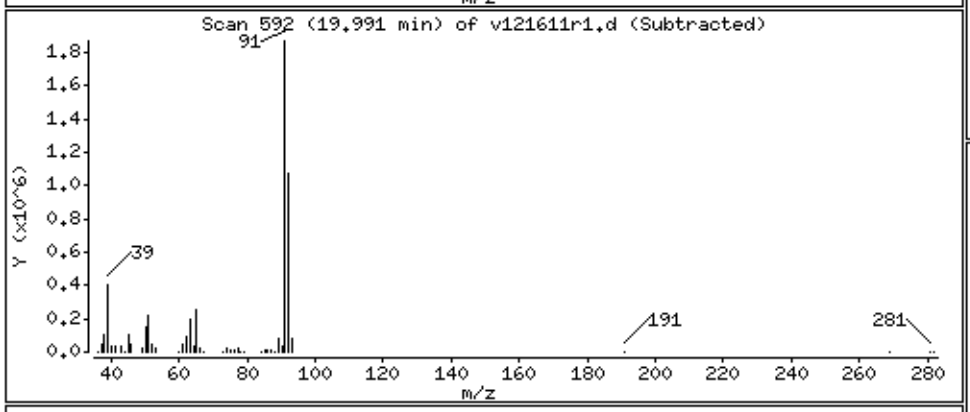
Column phase: RTx-624

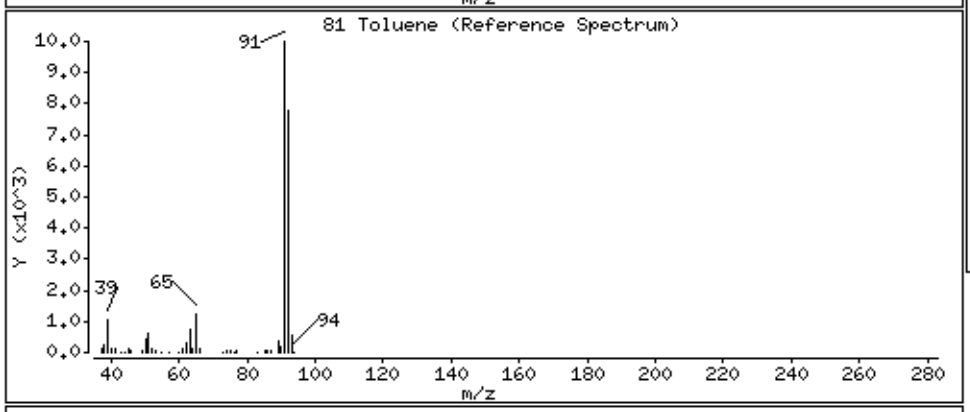
Column diameter: 0.32

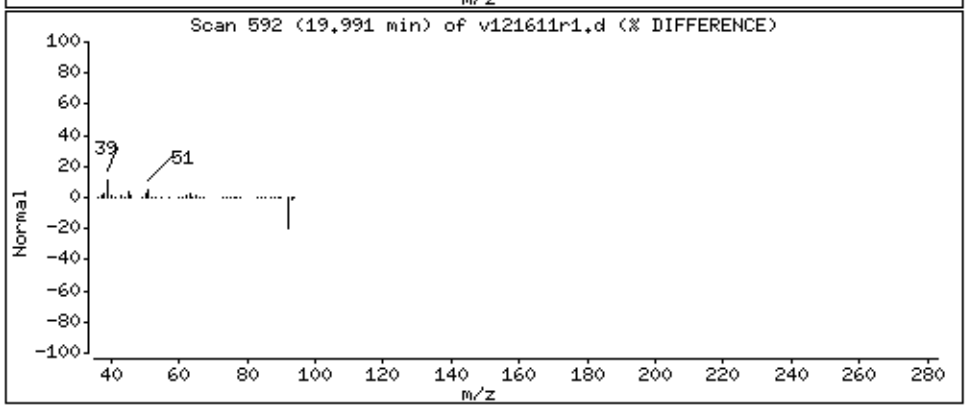
81 Toluene

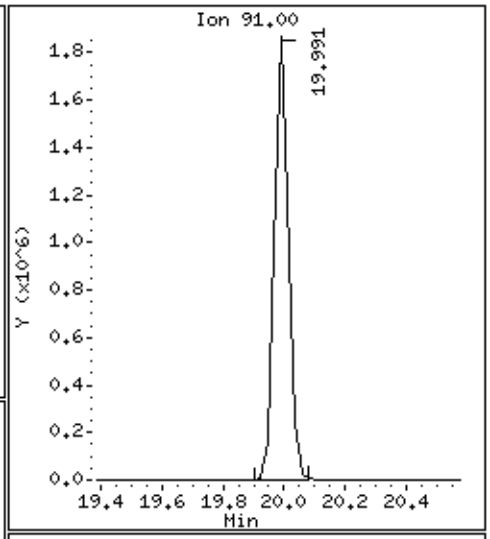
Concentration: 343.29 PPBV

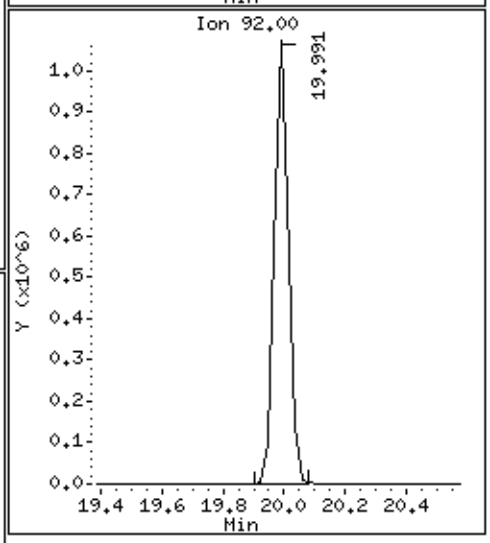


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

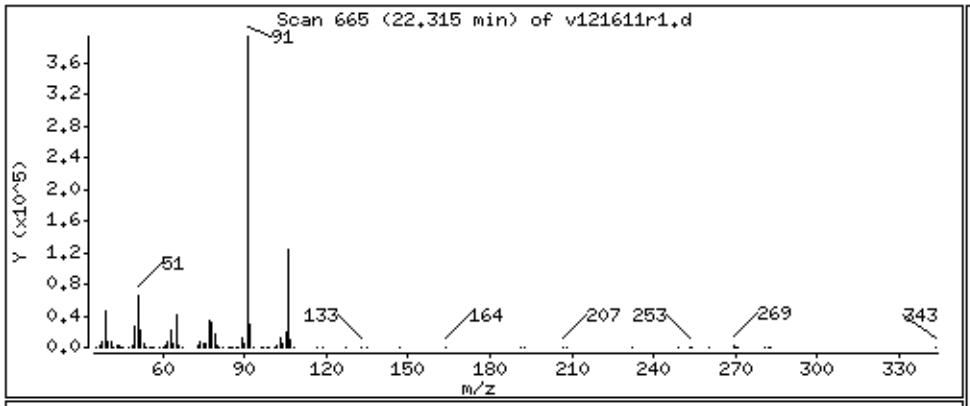
Operator: sn

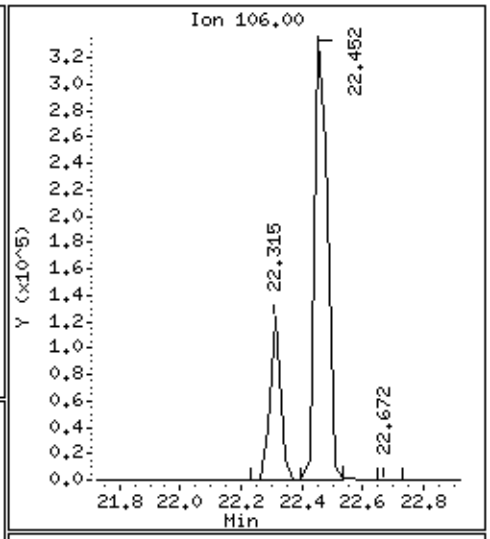
Column phase: RTx-624

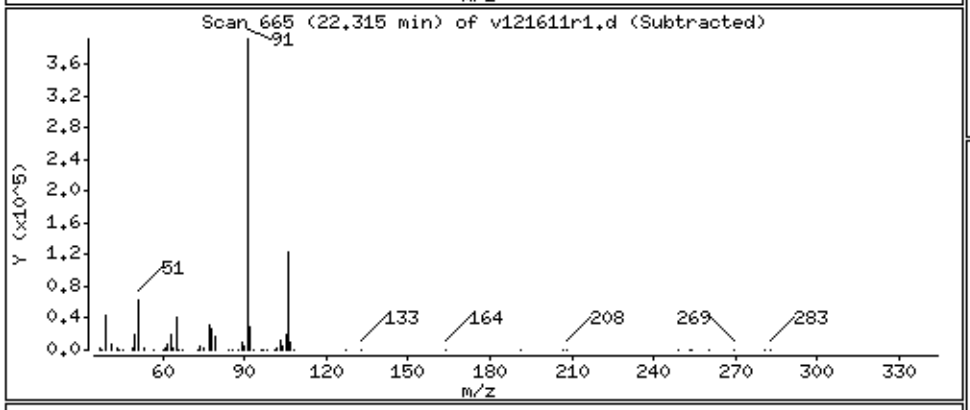
Column diameter: 0.32

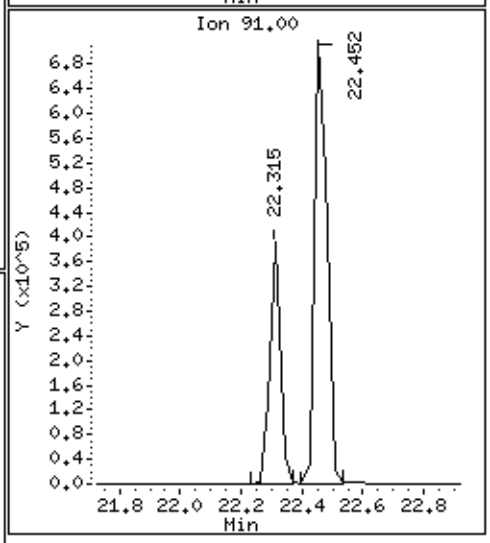
95 Ethyl Benzene

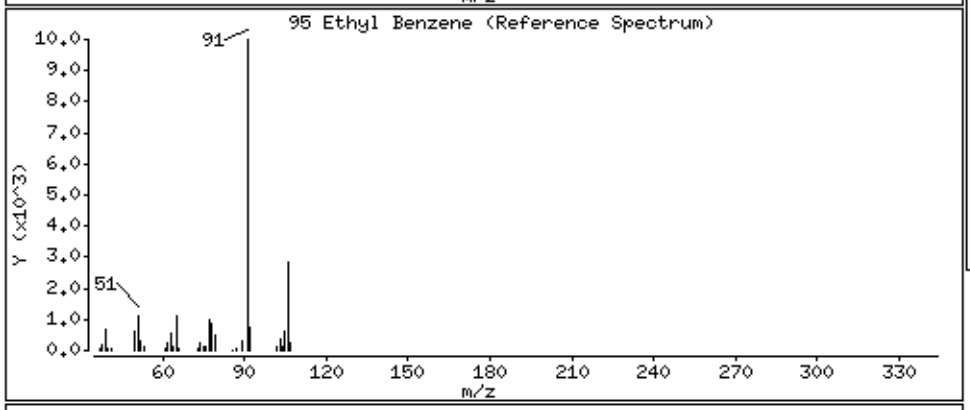
Concentration: 46.886 PPBV

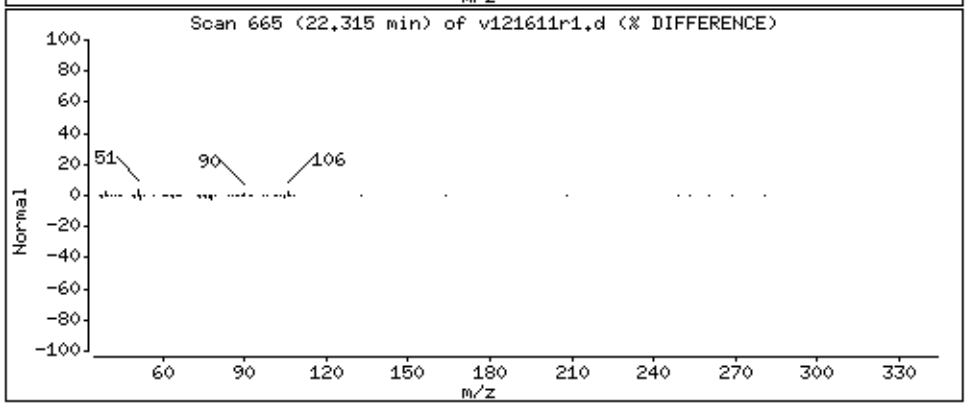


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

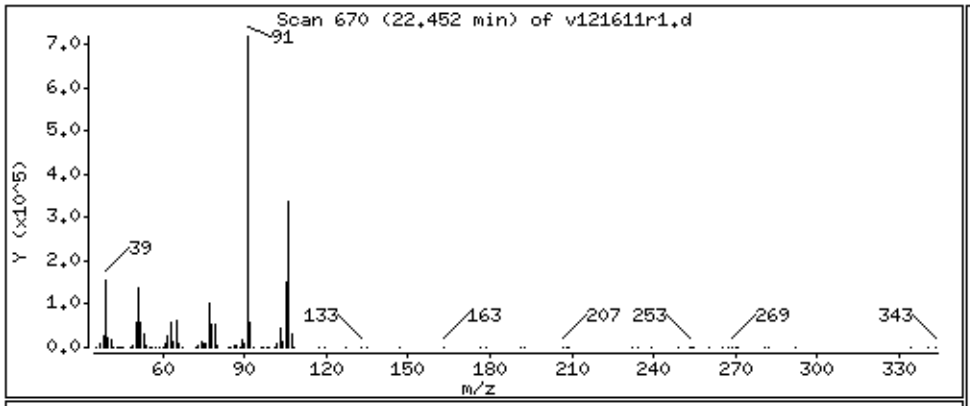
Operator: sn

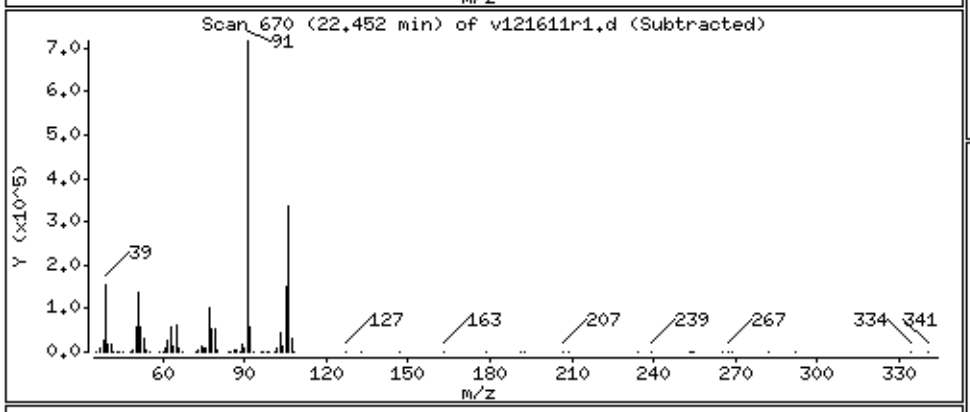
Column phase: RTx-624

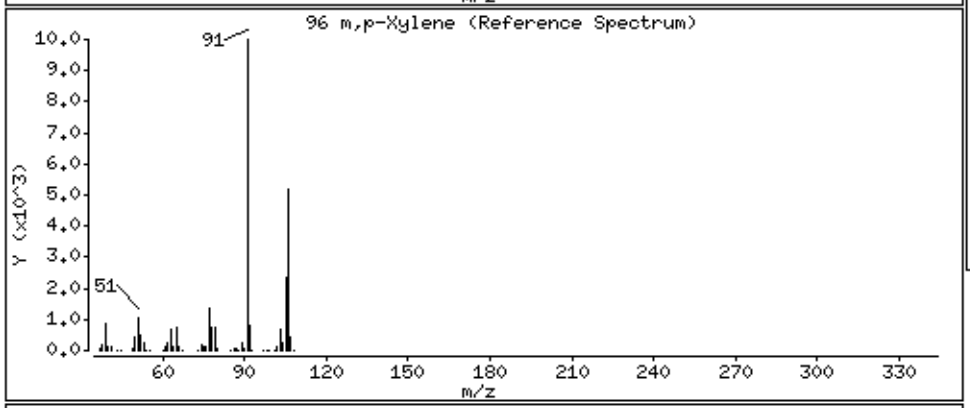
Column diameter: 0.32

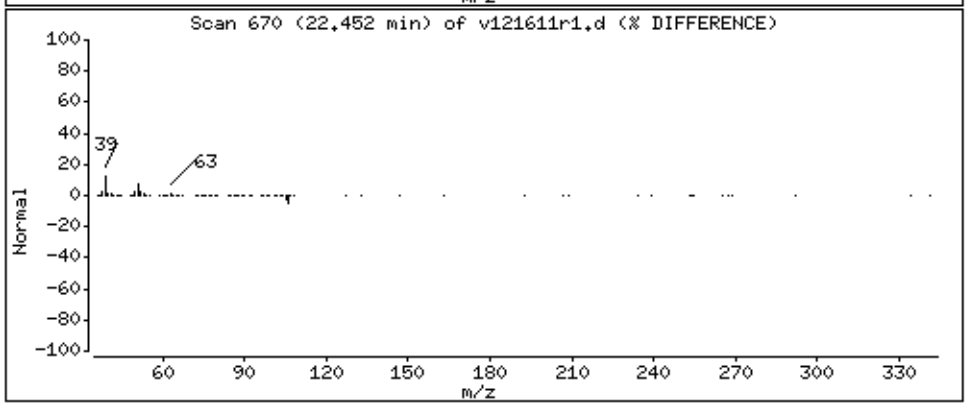
96 m,p-Xylene

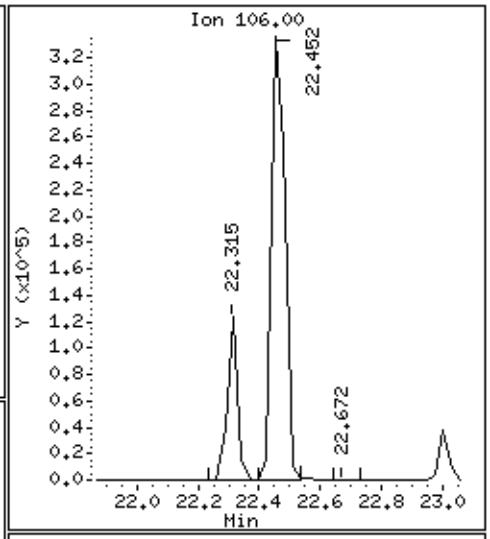
Concentration: 162.85 PPBV

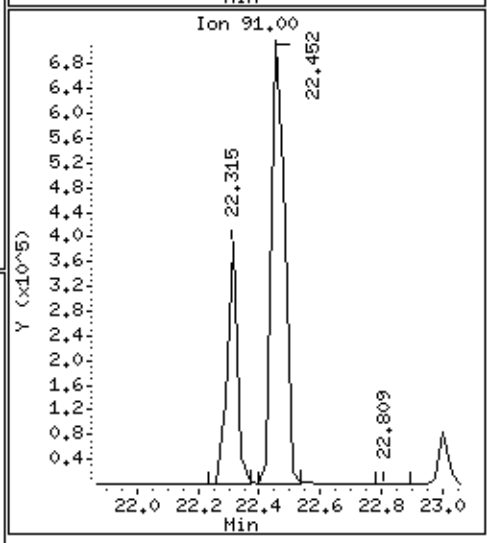


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

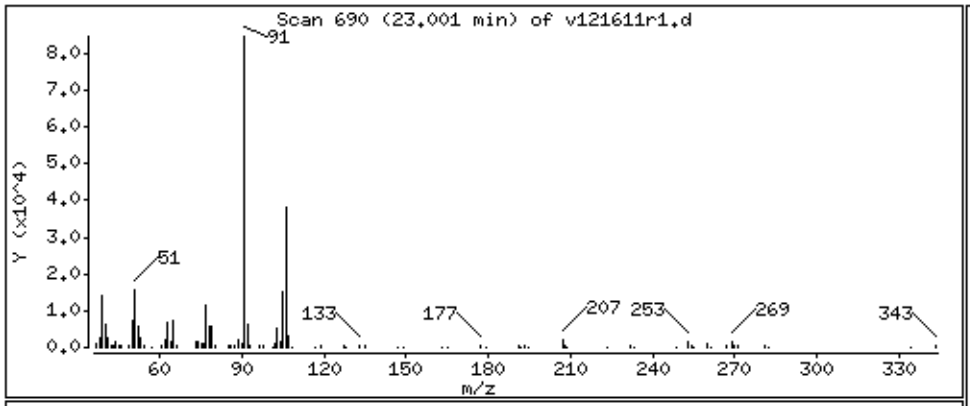
Operator: sn

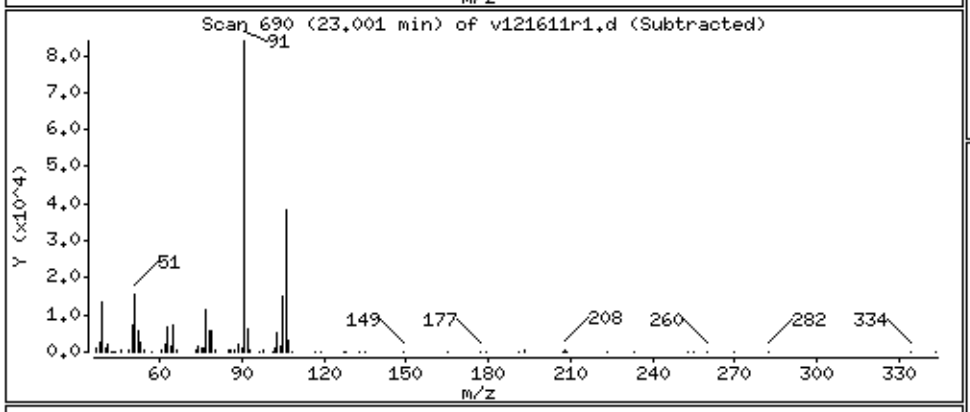
Column phase: RTx-624

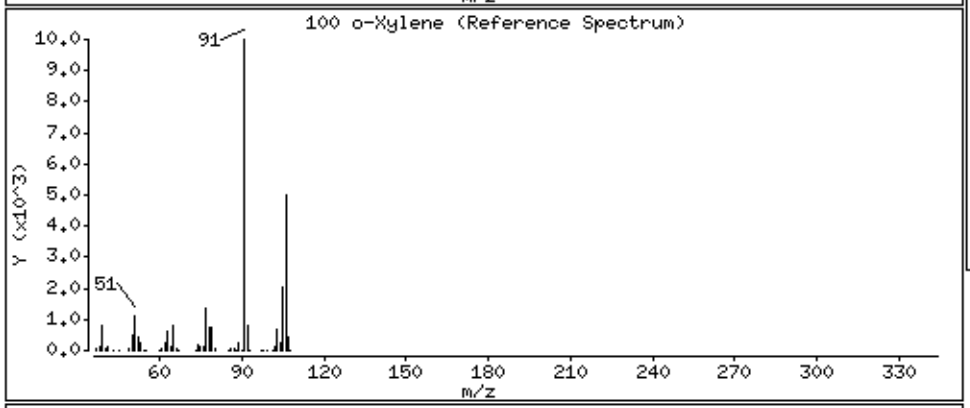
Column diameter: 0.32

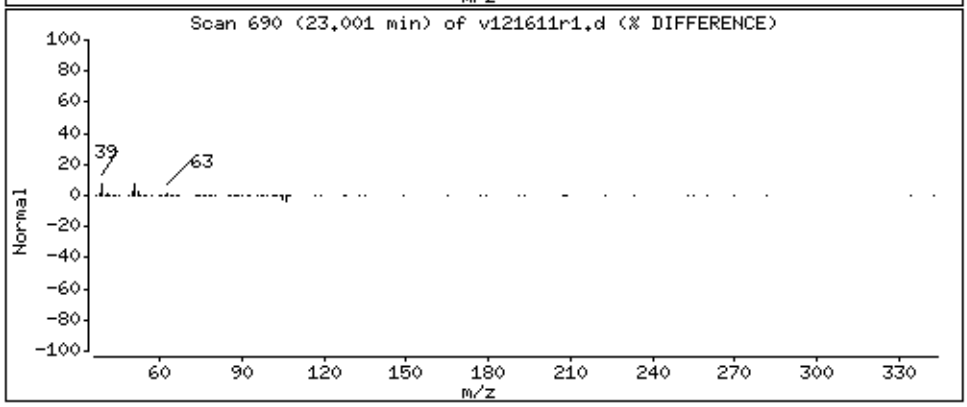
100 o-Xylene

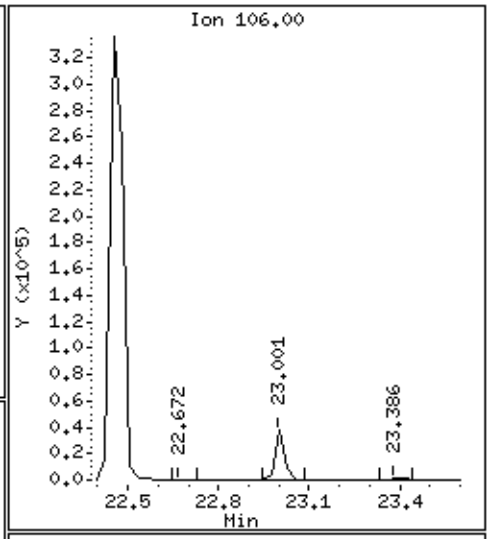
Concentration: 14.605 PPBV

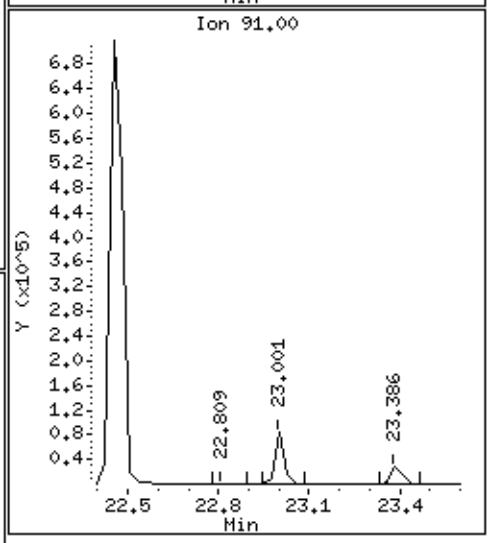


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d

Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

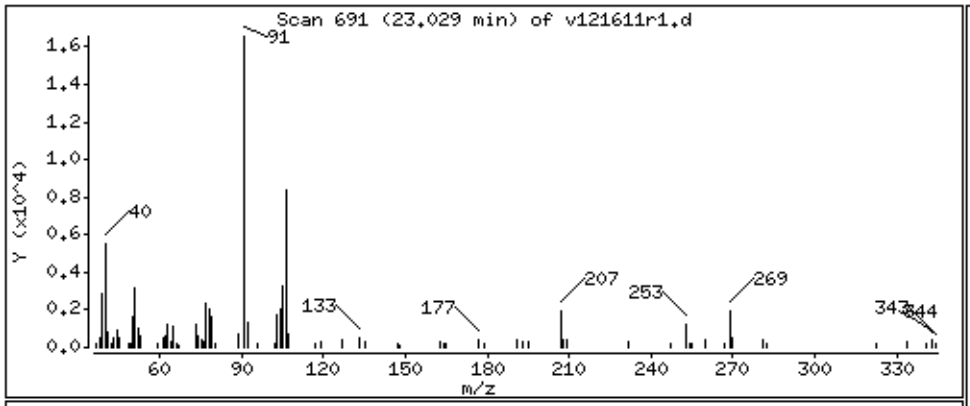
Operator: sn

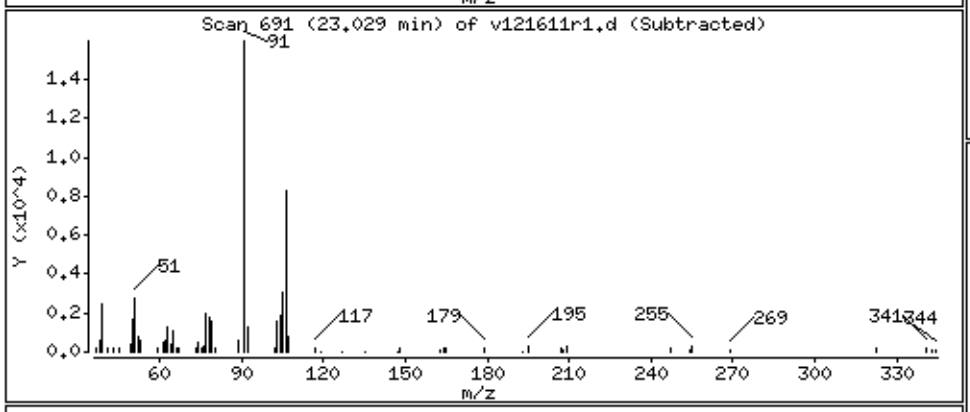
Column phase: RTx-624

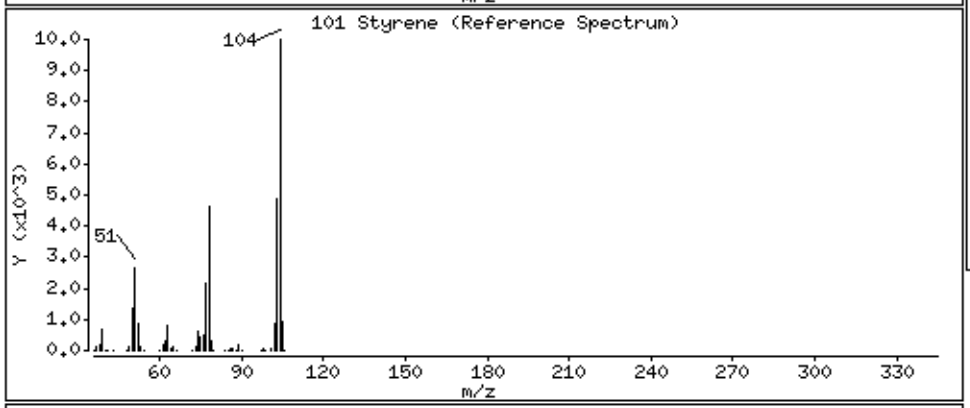
Column diameter: 0.32

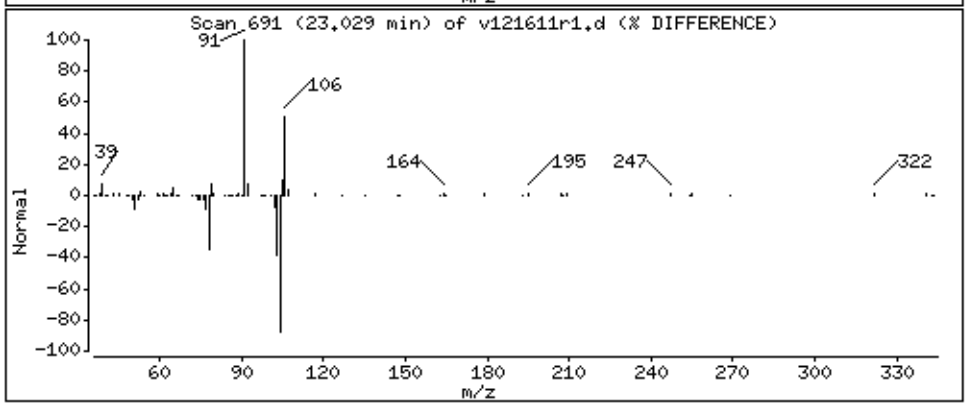
101 Styrene

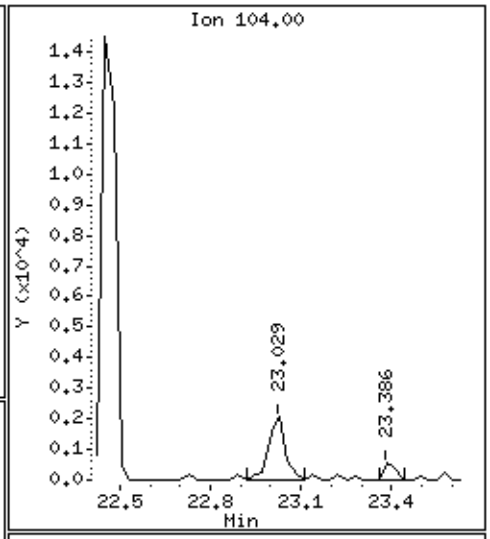
Concentration: 0.9550 PPBV

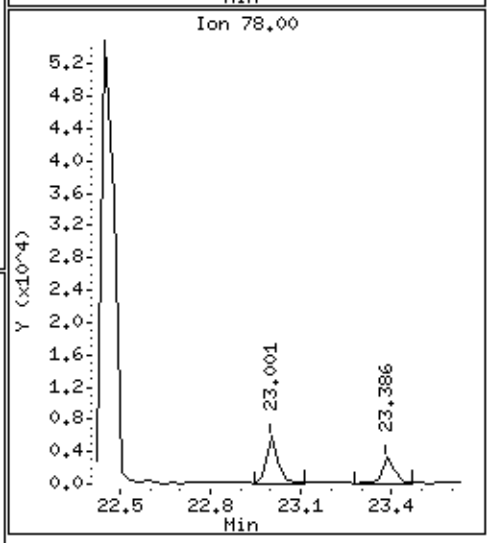


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d

Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

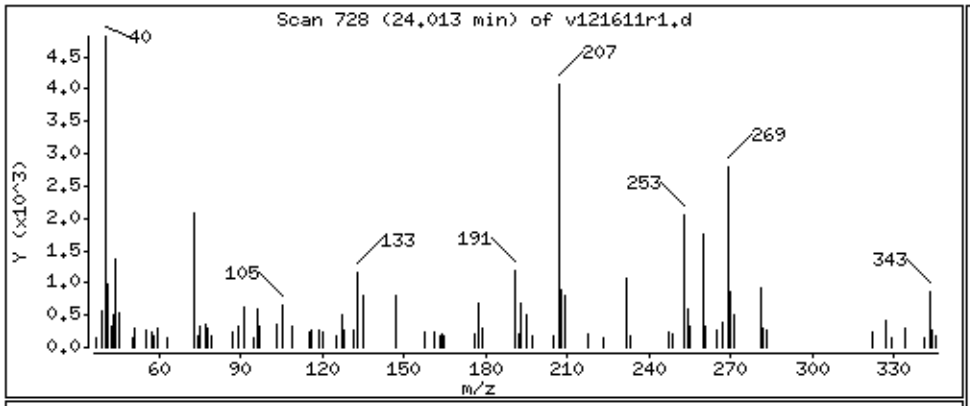
Operator: sn

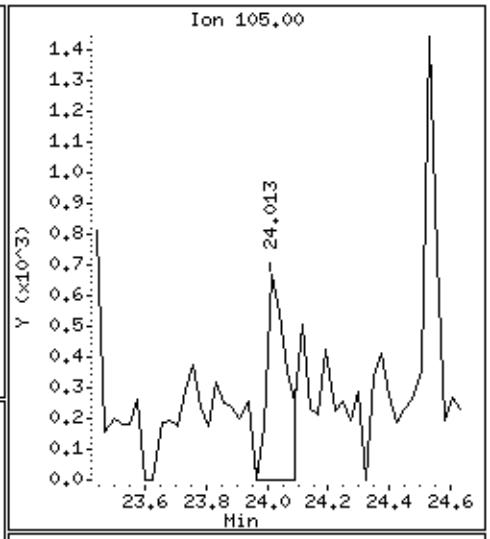
Column phase: RTx-624

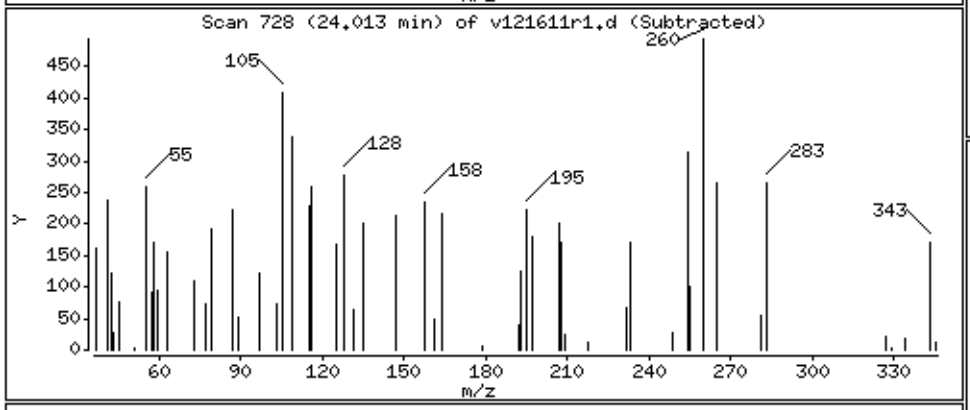
Column diameter: 0.32

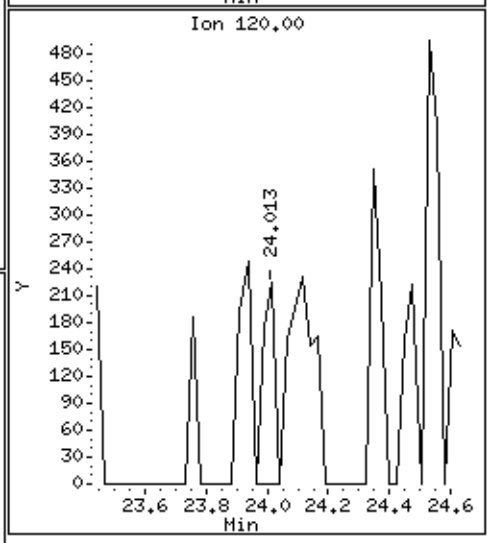
113 4-Ethyltoluene

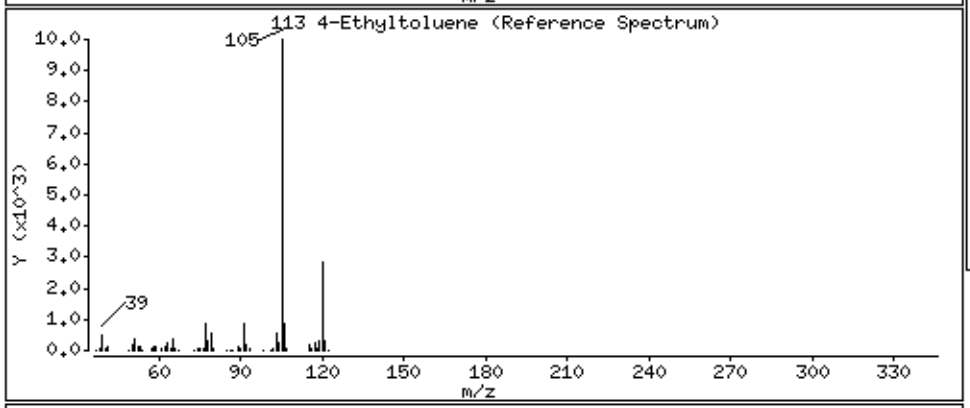
Concentration: 0.2794 PPBV

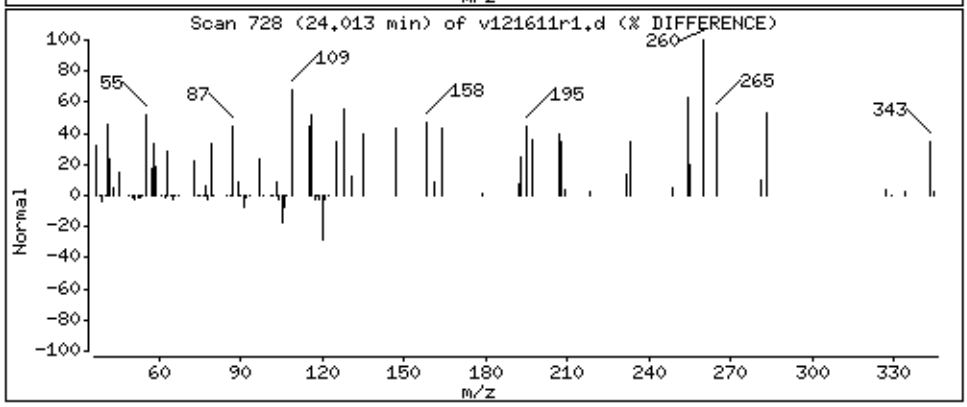


Data File: /chem/msdv.i/16Dec2014.b/v121611r1.d



Date : 16-DEC-2014 15:27

Client ID:

Instrument: msdv.i

Sample Info: 50ml #34723

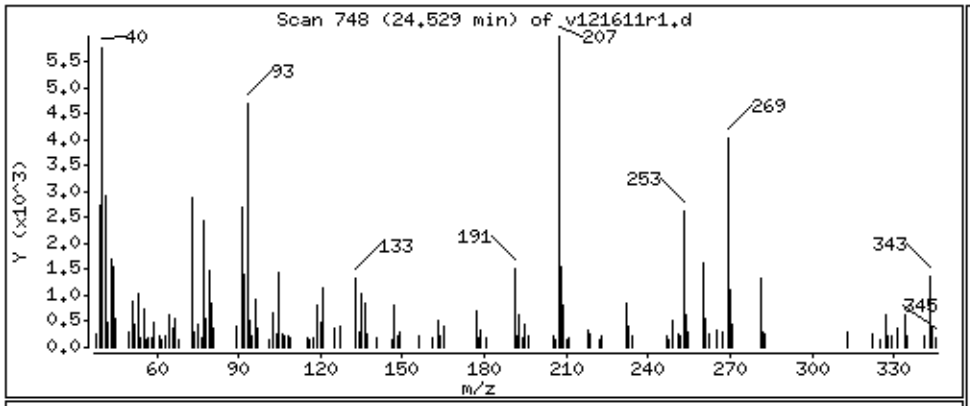
Operator: sn

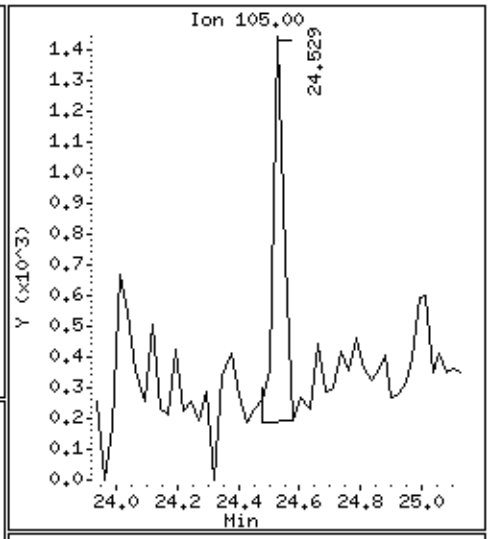
Column phase: RTx-624

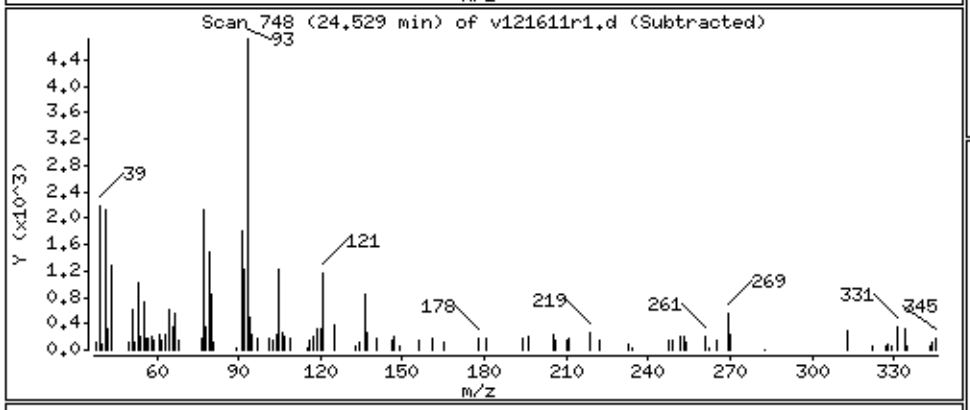
Column diameter: 0.32

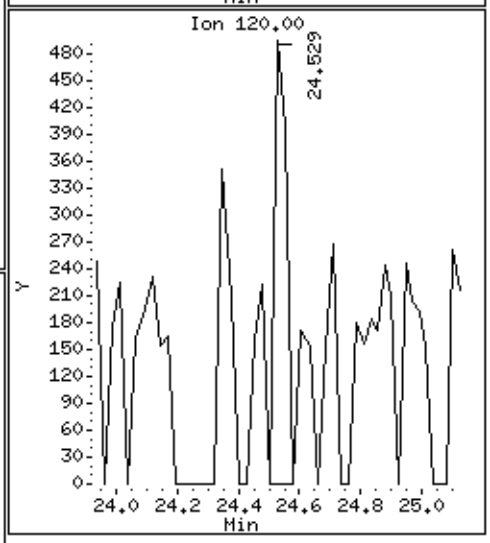
120 1,2,4-Trimethylbenzene

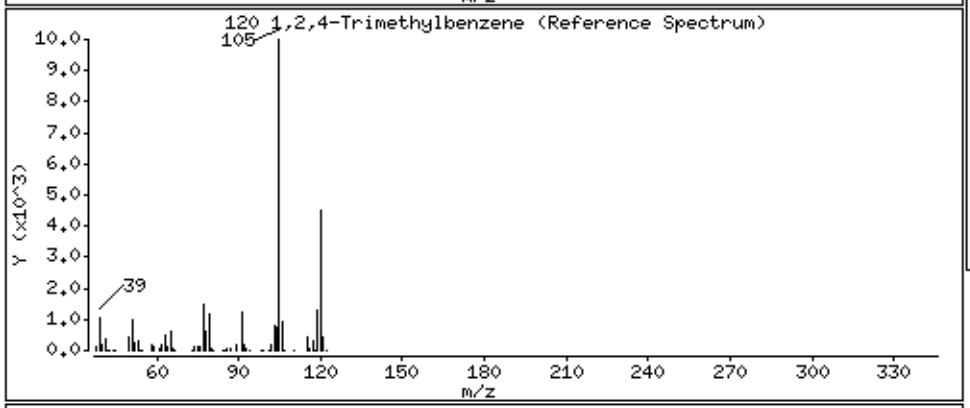
Concentration: 0.4196 PPBV

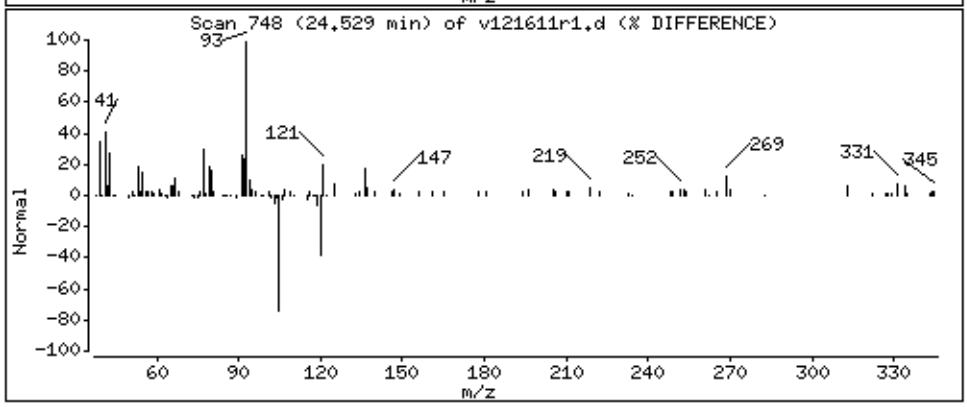


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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: BSIA-3D (2014)**

**Lab ID#: 1412151AR1-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.4 | 0.44 J | 7.1 | 2.2 J |
| Chloromethane | 1.4 | 1.0 J | 3.0 | 2.1 J |
| Freon 11 | 0.29 | 0.22 J | 1.6 | 1.2 J |
| Ethanol | 1.4 | 440 J0E | 2.7 | 830 J0E |
| Acetone | 1.4 | 270 E | 3.4 | 650 E |
| 2-Propanol | 1.4 | 170 E | 3.5 | 410 E |
| Methylene Chloride | 0.57 | 74 | 2.0 | 260 |
| Methyl tert-butyl ether | 0.29 | 1.7 | 1.0 | 6.2 |
| Hexane | 0.29 | 0.26 J | 1.0 | 0.92 J |
| 2-Butanone (Methyl Ethyl Ketone) | 1.4 | 0.87 J | 4.2 | 2.6 J |
| Tetrahydrofuran | 1.4 | 4.0 | 4.2 | 12 |
| Chloroform | 0.29 | 0.24 J | 1.4 | 1.2 J |
| 2,2,4-Trimethylpentane | 1.4 | 0.28 J | 6.7 | 1.3 J |
| Benzene | 0.29 | 0.20 J | 0.92 | 0.63 J |
| Heptane | 0.29 | 3.1 | 1.2 | 13 |
| 4-Methyl-2-pentanone | 0.29 | 79 | 1.2 | 320 |
| Toluene | 0.29 | 150 E | 1.1 | 570 E |
| Ethyl Benzene | 0.29 | 22 | 1.2 | 95 |
| m,p-Xylene | 0.29 | 78 | 1.2 | 340 |
| o-Xylene | 0.29 | 7.1 | 1.2 | 31 |
| Styrene | 0.29 | 0.71 | 1.2 | 3.0 |
| 4-Ethyltoluene | 0.29 | 0.12 J | 1.4 | 0.59 J |
| 1,2,4-Trimethylbenzene | 0.29 | 0.30 | 1.4 | 1.5 |

eurofins | Air Toxics

**Client Sample ID: BSIA-3D (2014)**

**Lab ID#: 1412151AR1-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121612r1** | **Date of Collection:** | **12/9/14 9:30:00 AM** |
| **Dil. Factor:** | **2.87** | **Date of Analysis:** | **12/16/14 04:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.4 | 0.44 J | 7.1 | 2.2 J |
| Freon 114 | 0.29 | Not Detected | 2.0 | Not Detected |
| Chloromethane | 1.4 | 1.0 J | 3.0 | 2.1 J |
| Vinyl Chloride | 0.29 | Not Detected | 0.73 | Not Detected |
| 1,3-Butadiene | 0.29 | Not Detected | 0.63 | Not Detected |
| Bromomethane | 1.4 | Not Detected | 5.6 | Not Detected |
| Chloroethane | 1.4 | Not Detected | 3.8 | Not Detected |
| Freon 11 | 0.29 | 0.22 J | 1.6 | 1.2 J |
| Ethanol | 1.4 | 440 J0E | 2.7 | 830 J0E |
| Freon 113 | 0.29 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.29 | Not Detected | 1.1 | Not Detected |
| Acetone | 1.4 | 270 E | 3.4 | 650 E |
| 2-Propanol | 1.4 | 170 E | 3.5 | 410 E |
| Carbon Disulfide | 1.4 | Not Detected | 4.5 | Not Detected |
| 3-Chloropropene | 1.4 | Not Detected | 4.5 | Not Detected |
| Methylene Chloride | 0.57 | 74 | 2.0 | 260 |
| Methyl tert-butyl ether | 0.29 | 1.7 | 1.0 | 6.2 |
| trans-1,2-Dichloroethene | 0.29 | Not Detected | 1.1 | Not Detected |
| Hexane | 0.29 | 0.26 J | 1.0 | 0.92 J |
| 1,1-Dichloroethane | 0.29 | Not Detected | 1.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1.4 | 0.87 J | 4.2 | 2.6 J |
| cis-1,2-Dichloroethene | 0.29 | Not Detected | 1.1 | Not Detected |
| Tetrahydrofuran | 1.4 | 4.0 | 4.2 | 12 |
| Chloroform | 0.29 | 0.24 J | 1.4 | 1.2 J |
| 1,1,1-Trichloroethane | 0.29 | Not Detected | 1.6 | Not Detected |
| Cyclohexane | 0.29 | Not Detected | 0.99 | Not Detected |
| Carbon Tetrachloride | 0.29 | Not Detected | 1.8 | Not Detected |
| 2,2,4-Trimethylpentane | 1.4 | 0.28 J | 6.7 | 1.3 J |
| Benzene | 0.29 | 0.20 J | 0.92 | 0.63 J |
| 1,2-Dichloroethane | 0.29 | Not Detected | 1.2 | Not Detected |
| Heptane | 0.29 | 3.1 | 1.2 | 13 |
| Trichloroethene | 0.29 | Not Detected | 1.5 | Not Detected |
| 1,2-Dichloropropane | 0.29 | Not Detected | 1.3 | Not Detected |
| 1,4-Dioxane | 0.29 | Not Detected | 1.0 | Not Detected |
| Bromodichloromethane | 0.29 | Not Detected | 1.9 | Not Detected |
| cis-1,3-Dichloropropene | 0.29 | Not Detected | 1.3 | Not Detected |
| 4-Methyl-2-pentanone | 0.29 | 79 | 1.2 | 320 |
| Toluene | 0.29 | 150 E | 1.1 | 570 E |
| trans-1,3-Dichloropropene | 0.29 | Not Detected | 1.3 | Not Detected |
| 1,1,2-Trichloroethane | 0.29 | Not Detected | 1.6 | Not Detected |
| Tetrachloroethene | 0.29 | Not Detected | 1.9 | Not Detected |
| 2-Hexanone | 1.4 | Not Detected | 5.9 | Not Detected |

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**Client Sample ID: BSIA-3D (2014)**

**Lab ID#: 1412151AR1-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121612r1** | **Date of Collection:** | **12/9/14 9:30:00 AM** |
| **Dil. Factor:** | **2.87** | **Date of Analysis:** | **12/16/14 04:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.29 | Not Detected | 2.4 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.29 | Not Detected | 2.2 | Not Detected |
| Chlorobenzene | 0.29 | Not Detected | 1.3 | Not Detected |
| Ethyl Benzene | 0.29 | 22 | 1.2 | 95 |
| m,p-Xylene | 0.29 | 78 | 1.2 | 340 |
| o-Xylene | 0.29 | 7.1 | 1.2 | 31 |
| Styrene | 0.29 | 0.71 | 1.2 | 3.0 |
| Bromoform | 0.29 | Not Detected | 3.0 | Not Detected |
| Cumene | 0.29 | Not Detected | 1.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.29 | Not Detected | 2.0 | Not Detected |
| Propylbenzene | 0.29 | Not Detected | 1.4 | Not Detected |
| 4-Ethyltoluene | 0.29 | 0.12 J | 1.4 | 0.59 J |
| 1,3,5-Trimethylbenzene | 0.29 | Not Detected | 1.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.29 | 0.30 | 1.4 | 1.5 |
| 1,3-Dichlorobenzene | 0.29 | Not Detected UJ | 1.7 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.29 | Not Detected UJ | 1.7 | Not Detected UJ |
| alpha-Chlorotoluene | 1.4 | Not Detected UJ | 7.4 | Not Detected UJ |
| 1,2-Dichlorobenzene | 0.29 | Not Detected UJ | 1.7 | Not Detected UJ |
| 1,2,4-Trichlorobenzene | 1.4 | Not Detected | 11 | Not Detected |
| Hexachlorobutadiene | 1.4 | Not Detected UJ | 15 | Not Detected UJ |
| Naphthalene | 1.4 | Not Detected | 7.5 | Not Detected |

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: 6 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 107 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121612r1.d
Lab Smp Id: 1412151AR1-02A
Inj Date : 16-DEC-2014 16:13
Operator : sn Inst ID: msdv.i
Smp Info : 250ml #35255
Misc Info : 16.0"Hg -> 5.0psi
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 2.87000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.933 (1.000) | 130 | 96290 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 78300 | | | 47.55- 107.55 | 81.32 |
| 15.933 | 15.933 (1.000) | 49 | 256880 | | | 213.64- 273.64 | 266.78 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 423209 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 73730 | | | 0.00- 46.17 | 17.42 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 339611 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 213277 | | | 28.56- 88.56 | 62.80 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 185690 | 5.25459 | 5.254 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 92654 | | | 28.37- 88.37 | 49.90 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.856 | 19.879 (1.147) | 98 | 436989 | 5.37057 | 5.370 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 55703 | | | 0.00- 41.90 | 12.75 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.856  19.879 (1.147)   100    278321                    34.60-  94.60    63.69
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    139276 4.76871    4.769  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    204834                  113.85- 173.85   147.07
 23.704  23.704 (1.067)   176    138606                    68.89- 128.89    99.52
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.164   5.202 (0.324)    85     13886 0.15393   0.4418  80.00- 120.00   100.00(a)
  5.202   5.202 (0.326)    87      3054                     1.57-  61.57    21.99
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.128   7.052 (0.447)    50     19543 0.35948    1.032  80.00- 120.00   100.00
  7.128   7.052 (0.447)    52      6167                     1.81-  61.81    31.56
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.184  11.183 (0.702)   101      7066 0.07609   0.2184  80.00- 120.00   100.00(a)
 11.184  11.183 (0.702)   103      4570                    34.11-  94.11    64.68
-------------------------------------------------------------------------------
   24 Ethanol                                       CAS #: 64-17-5
 12.101  12.101 (0.760)    45   3031779 154.017   442.03  80.00- 120.00   100.00(A)
 12.101  12.101 (0.760)    46   1163929                     8.51-  68.51    38.39
 12.101  12.101 (0.760)    43    615726                     0.00-  54.10    20.31
-------------------------------------------------------------------------------
   31 Acetone                                       CAS #: 67-64-1
 12.816  12.816 (0.804)    58   2173372 95.5314   274.18  80.00- 120.00   100.00(A)
 12.816  12.816 (0.804)    43   9647939                 413.15- 473.15   443.92
-------------------------------------------------------------------------------
   34 2-Propanol                                    CAS #: 67-63-0
 13.173  13.173 (0.827)    45   6160249 58.4753   167.82  80.00- 120.00   100.00(A)
 13.173  13.173 (0.827)    43   1157256                     0.00-  50.74    18.79
 13.173  13.173 (0.827)    59    171251                     0.00-  32.83     2.78
-------------------------------------------------------------------------------
   37 Methylene Chloride                            CAS #: 75-09-2
 13.640  13.640 (0.856)    84    752557 25.7077   73.781  80.00- 120.00   100.00
 13.640  13.640 (0.856)    49   1789733                 212.37- 272.37   237.82
 13.640  13.640 (0.856)    51    524722                    43.31- 103.31    69.73
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.997  13.996 (0.878)    73     63166 0.60143    1.726  80.00- 120.00   100.00
 13.997  13.996 (0.878)    57     29024                     2.99-  62.99    45.95
 13.997  13.996 (0.878)    41     29168                    12.12-  72.12    46.18
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57      7606 0.09050   0.2597  80.00- 120.00   100.00(a)
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 43 Hexane (continued) | | | | | | | |
| 14.381 | 14.381 (0.903) | 43 | 11249 | | | 57.65- 117.65 | 147.90 |
| 14.381 | 14.381 (0.903) | 86 | 808 | | | 0.00- 40.67 | 10.62 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.571 (0.979) | 72 | 5114 | 0.30201 | 0.8668 | 80.00- 120.00 | 100.00(a) |
| 15.592 | 15.571 (0.979) | 43 | 49496 | | | 794.80- 854.80 | 967.85 |
| 15.613 | 15.571 (0.980) | 57 | 2628 | | | 18.01- 78.01 | 51.39 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 122851 | 1.40789 | 4.041 | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 23423 | | | 0.00- 49.03 | 19.07 |
| 15.933 | 15.933 (1.000) | 72 | 25124 | | | 0.00- 51.35 | 20.45 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 6708 | 0.08267 | 0.2372 | 80.00- 120.00 | 100.00(a) |
| 15.995 | 15.995 (1.004) | 85 | 3522 | | | 33.33- 93.33 | 52.50 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 8542 | 0.09604 | 0.2756 | 80.00- 120.00 | 100.00(a) |
| 16.728 | 16.728 (1.050) | 57 | 22450 | | | 258.69- 318.69 | 262.82 |
| 16.728 | 16.728 (1.050) | 41 | 11257 | | | 79.91- 139.91 | 131.78 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 8562 | 0.06856 | 0.1968 | 80.00- 120.00 | 100.00(a) |
| 16.756 | 16.756 (0.968) | 77 | 2603 | | | 0.00- 53.73 | 30.40 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.948 (0.981) | 57 | 58433 | 1.08557 | 3.116 | 80.00- 120.00 | 100.00 |
| 16.975 | 16.948 (0.981) | 100 | 12470 | | | 0.00- 51.27 | 21.34 |
| 16.975 | 16.948 (0.981) | 43 | 153814 | | | 235.24- 295.24 | 263.23 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 4854367 | 27.5373 | 79.032 | 80.00- 120.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 1288139 | | | 0.00- 57.24 | 26.54 |
| 19.587 | 19.587 (1.132) | 85 | 412886 | | | 0.00- 38.20 | 8.51 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 7258478 | 52.6520 | 151.11 | 80.00- 120.00 | 100.00(A) |
| 19.991 | 19.991 (1.155) | 92 | 4194784 | | | 28.60- 88.60 | 57.79 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 382548 | 7.64228 | 21.933 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 1244746 | | | 292.36- 352.36 | 325.38 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 1351303 | 27.3770 | 78.572 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 96 m,p-Xylene (continued) | | | | | | | |
| 22.452 | 22.452 (1.011) | 91 | 2811333 | | | 164.15- 224.15 | 208.05 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.001 | 23.001 (1.036) | 106 | 114312 | 2.48884 | 7.143 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 257878 | | | 186.63- 246.63 | 225.59 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 16578 | 0.24672 | 0.7081 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.029 (1.036) | 78 | 23810 | | | 28.70- 88.70 | 143.62 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.013 | 24.039 (1.081) | 105 | 3624 | 0.04152 | 0.1192 | 80.00- 120.00 | 100.00(a) |
| 24.013 | 24.039 (1.081) | 120 | 1474 | | | 0.18- 60.18 | 40.67 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 6131 | 0.10388 | 0.2981 | 80.00- 120.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 2205 | | | 19.27- 79.27 | 35.96 |

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121612r1.d
Lab Smp Id: 1412151AR1-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 16.0"Hg -> 5.0psi

Calibration Date: 16-DEC-2014
Calibration Time: 08:42

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 96290 | -12.24 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 423209 | -5.00 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 339611 | -5.95 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1412151AR1-02A
Level: LOW
Operator: sn
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 16.0"Hg -> 5.0psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.254 | 105.09 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.370 | 107.41 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.769 | 95.37 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

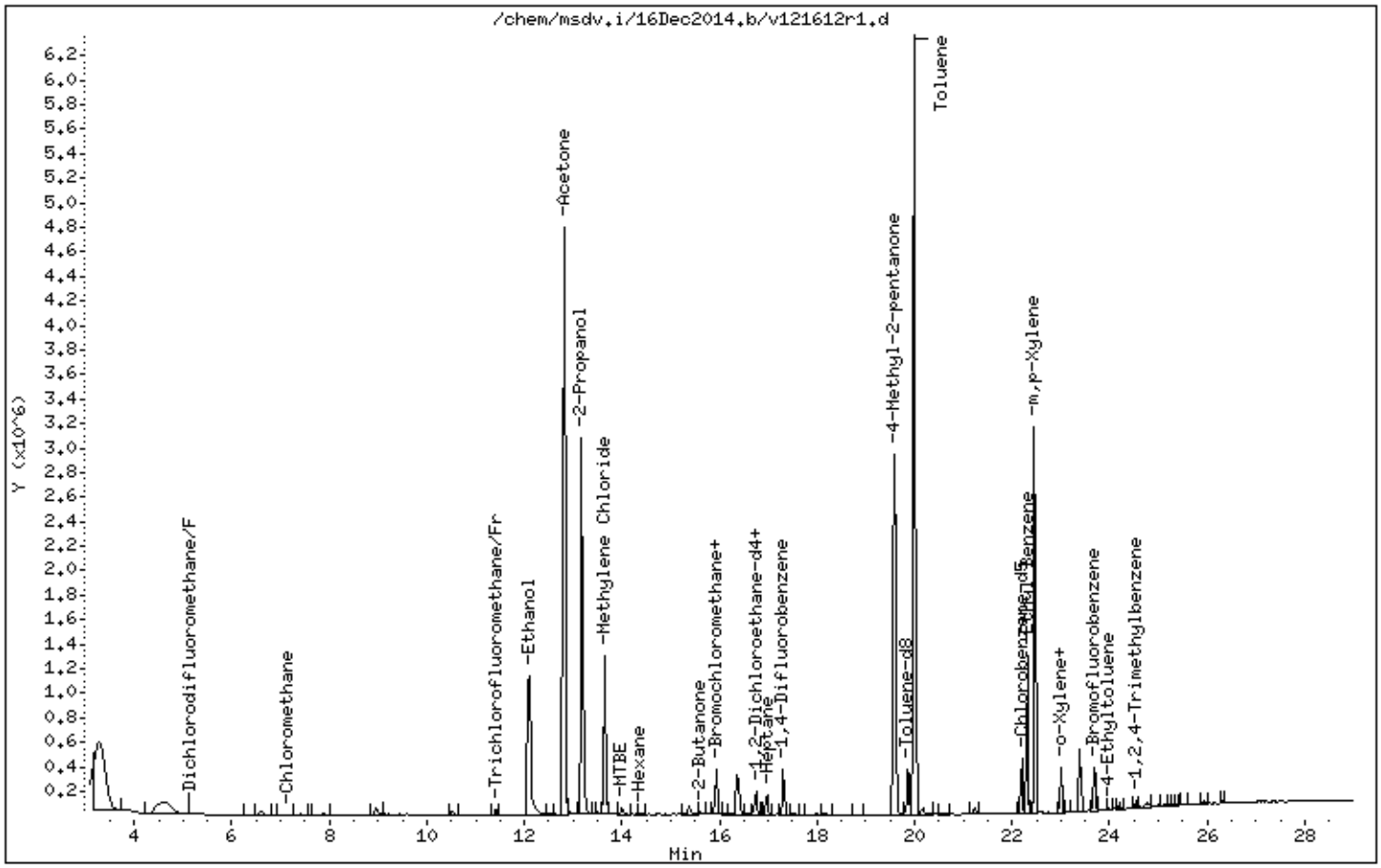
Instrument: msdv.i

Sample Info: 250ml #35255

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

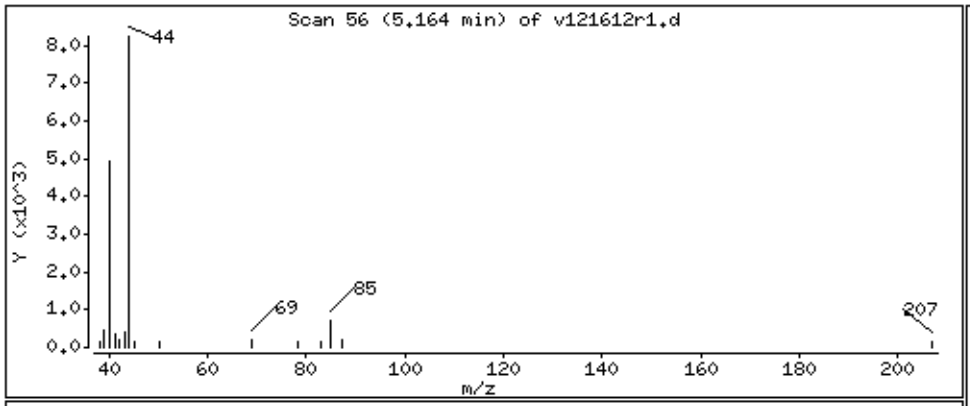
Operator: sn

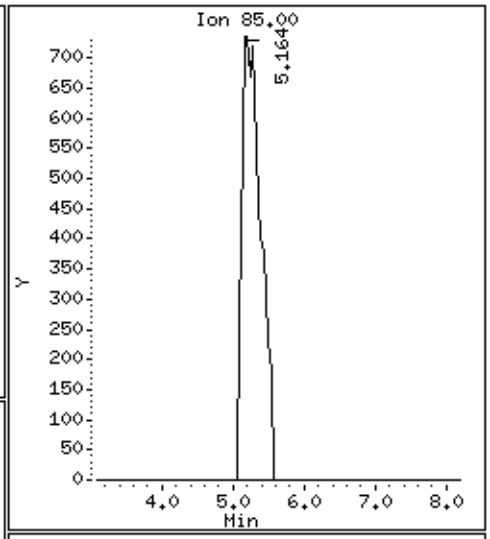
Column phase: RTx-624

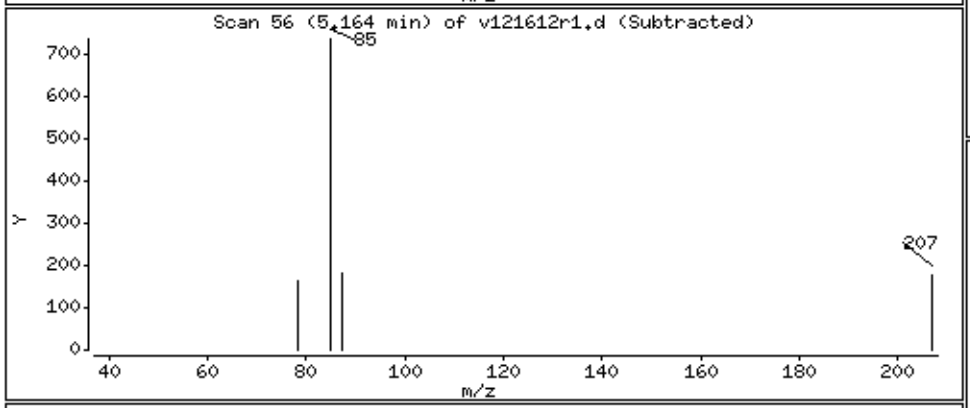
Column diameter: 0.32

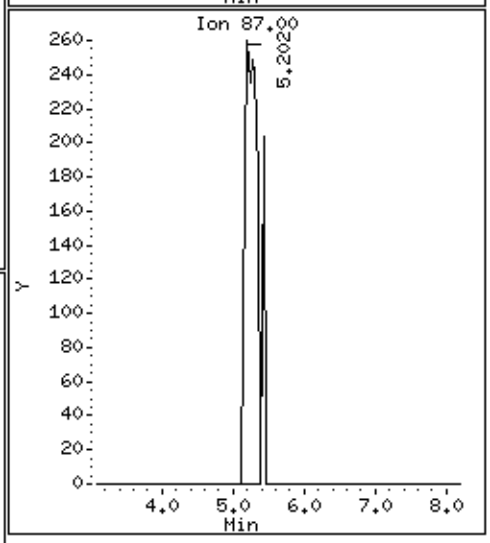
4 Dichlorodifluoromethane/Fr12

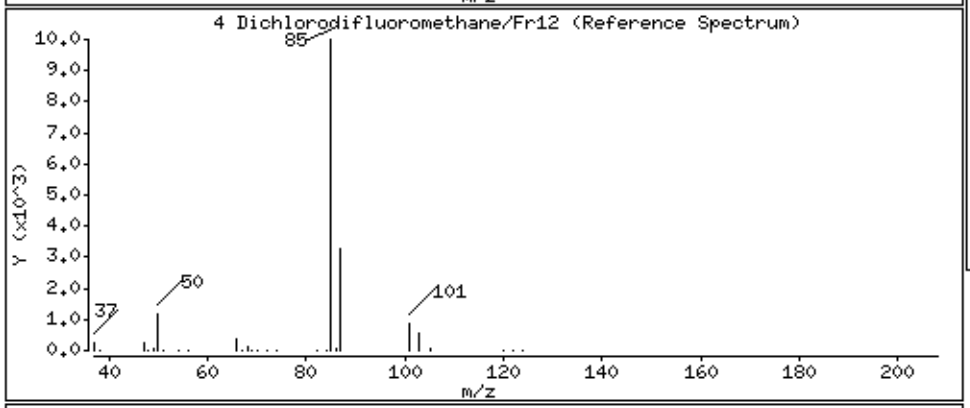
Concentration: 0.4418 PPBV

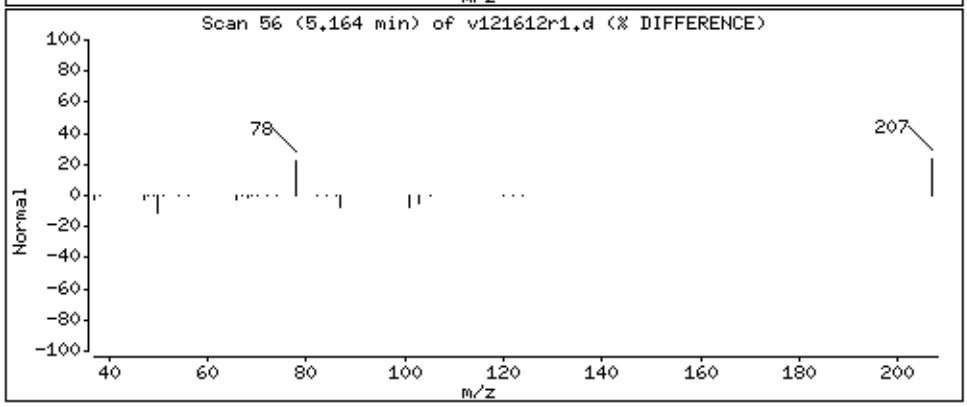


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

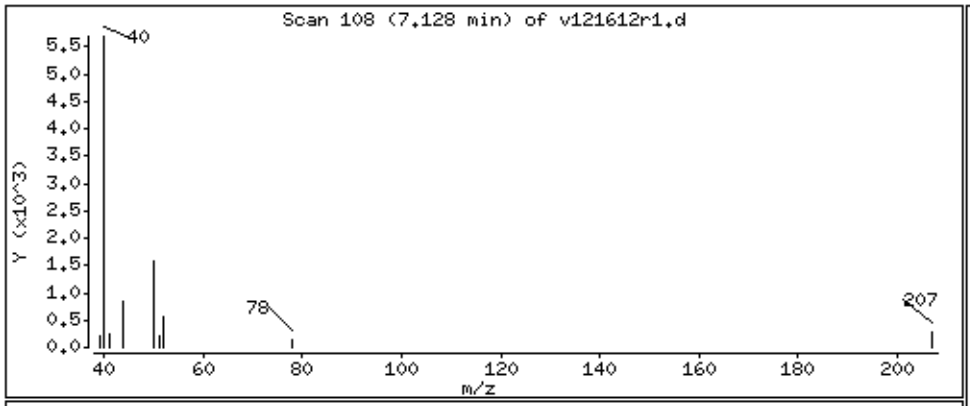
Operator: sn

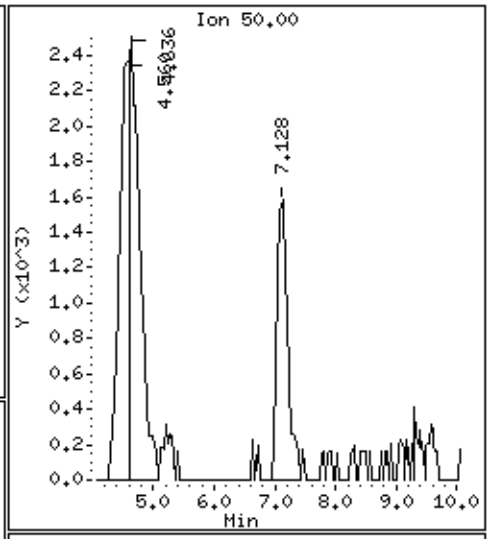
Column phase: RTx-624

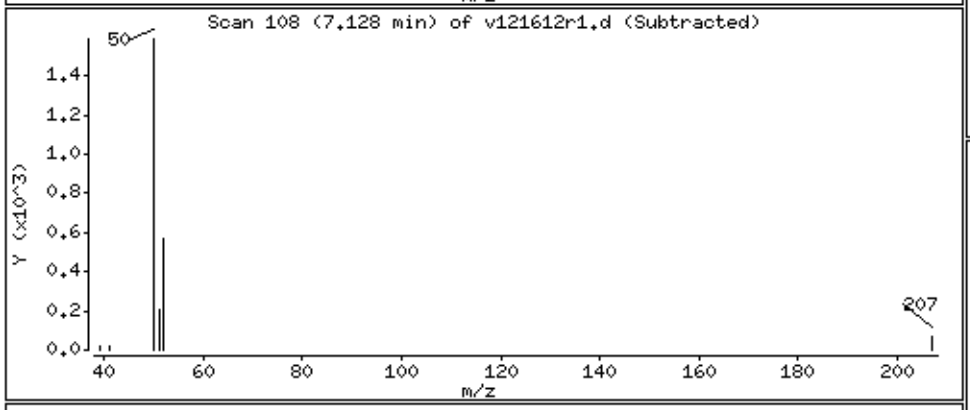
Column diameter: 0.32

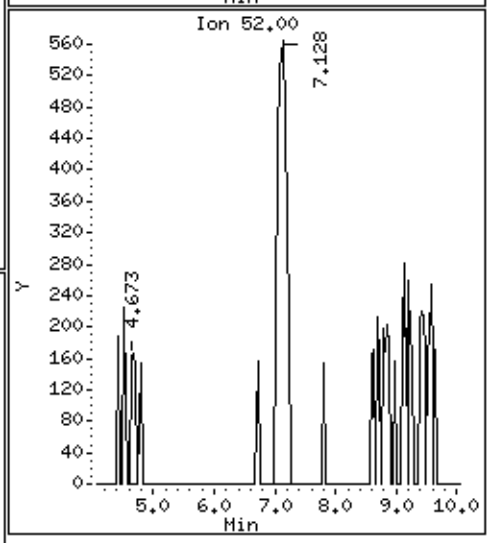
8 Chloromethane

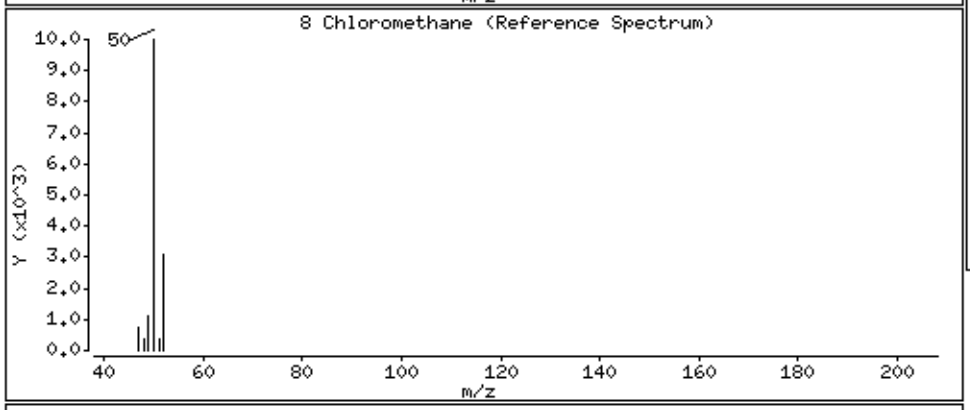
Concentration: 1.032 PPBV

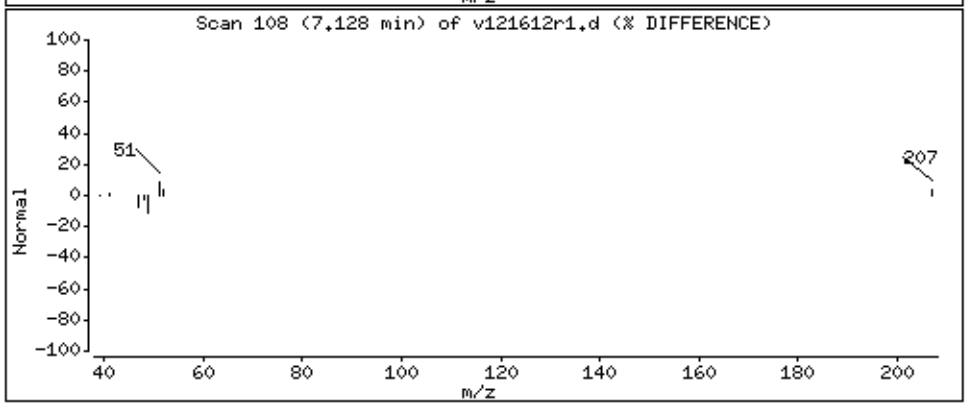


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

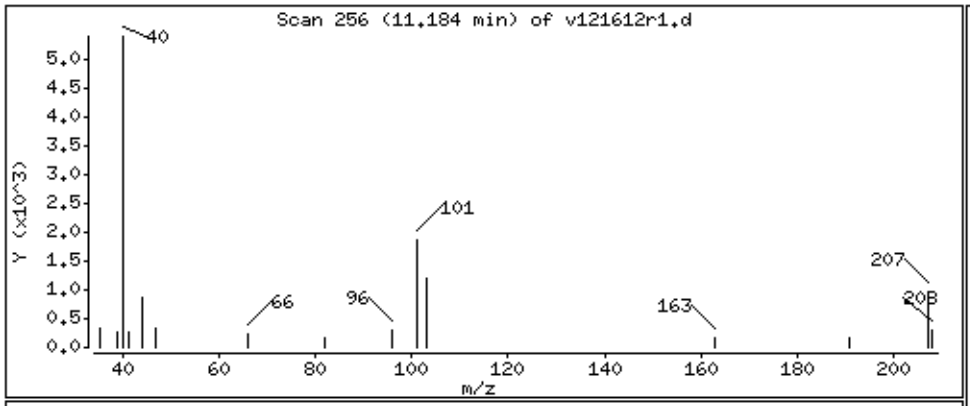
Operator: sn

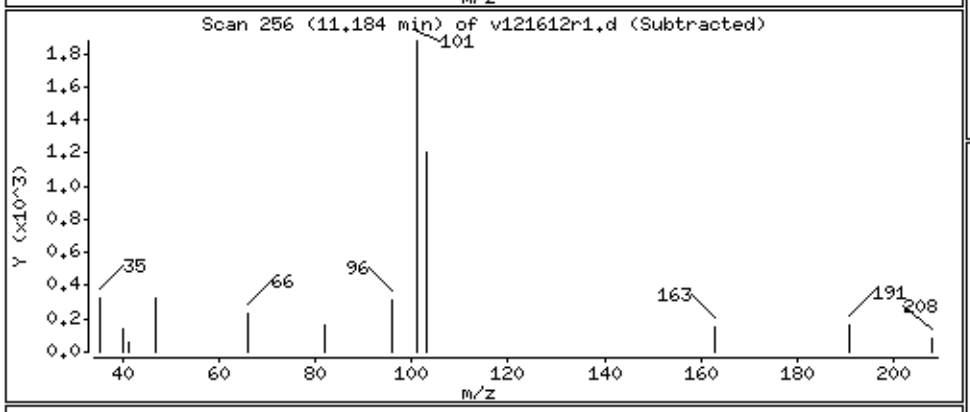
Column phase: RTx-624

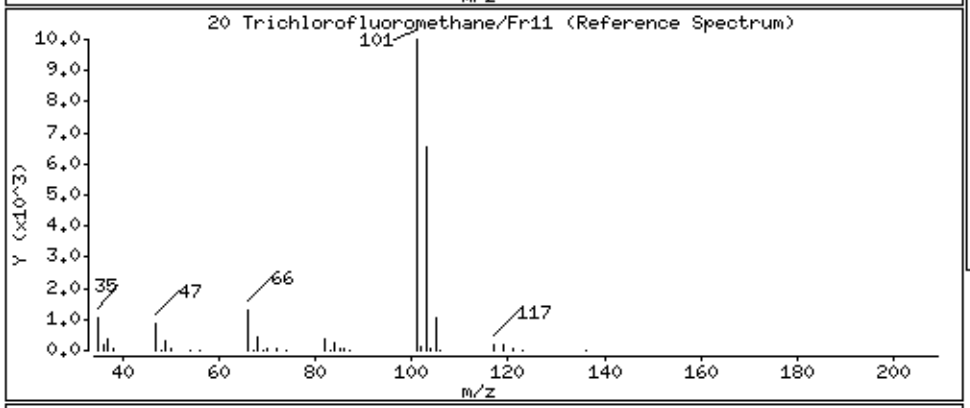
Column diameter: 0.32

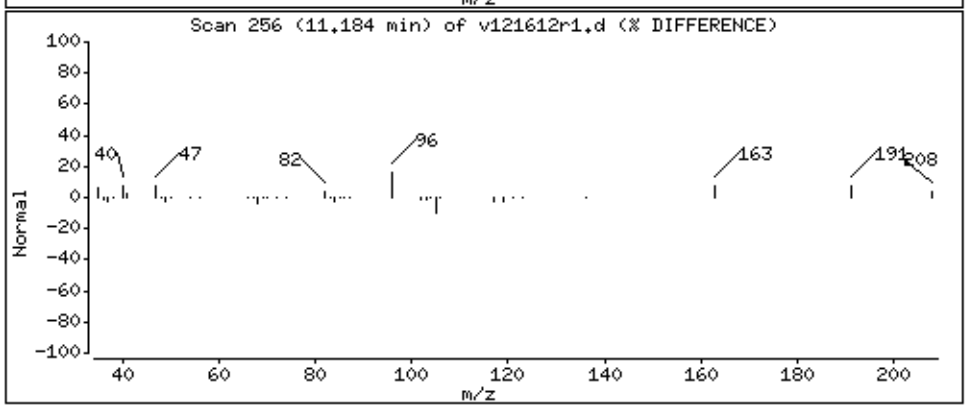
20 Trichlorofluoromethane/Fr11

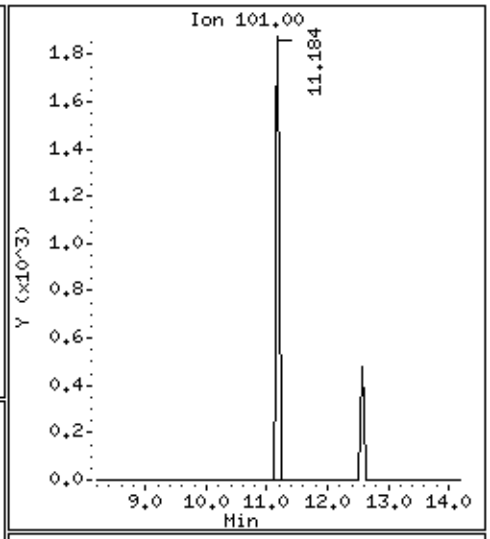
Concentration: 0.2184 PPBV

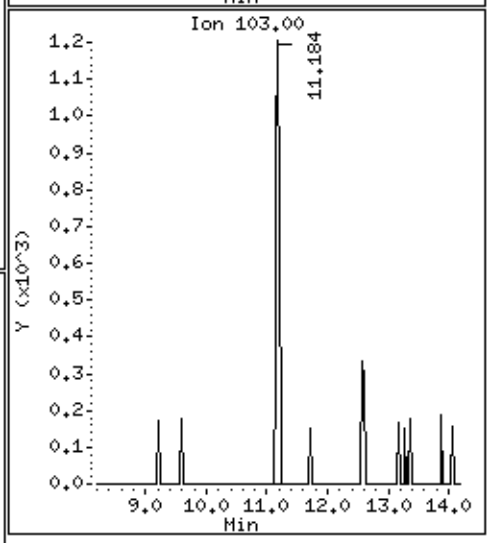


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

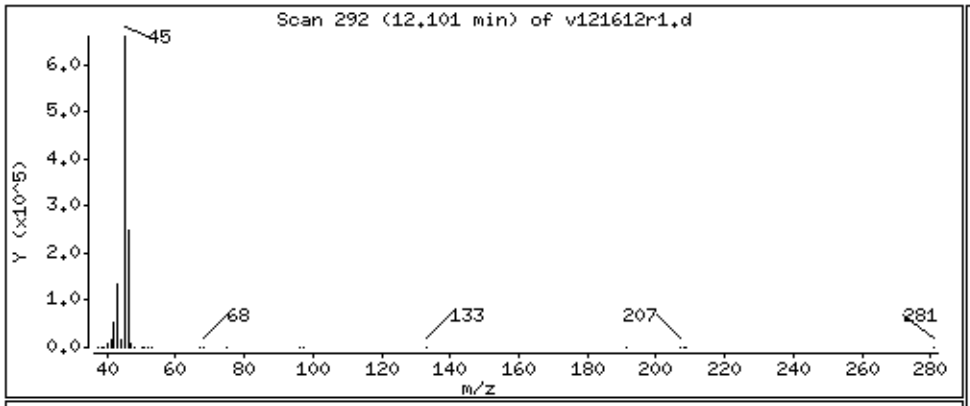
Operator: sn

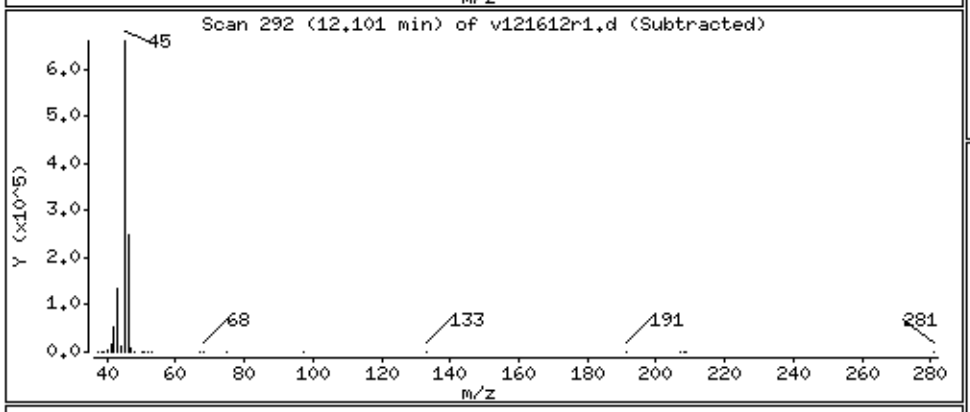
Column phase: RTx-624

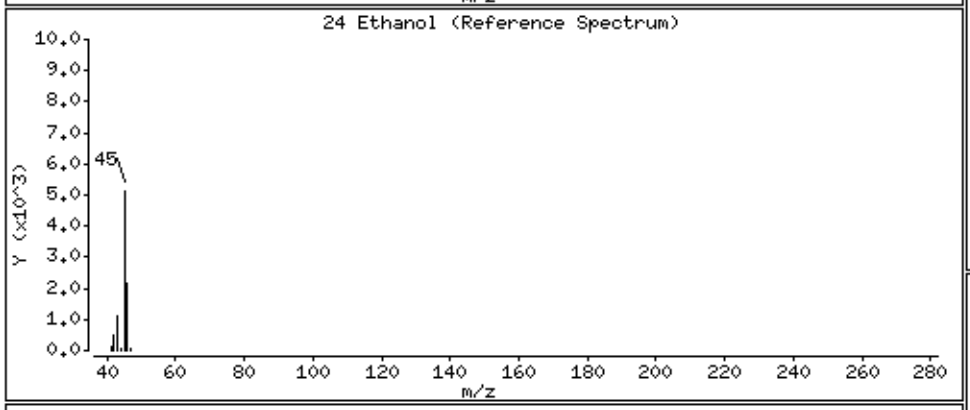
Column diameter: 0.32

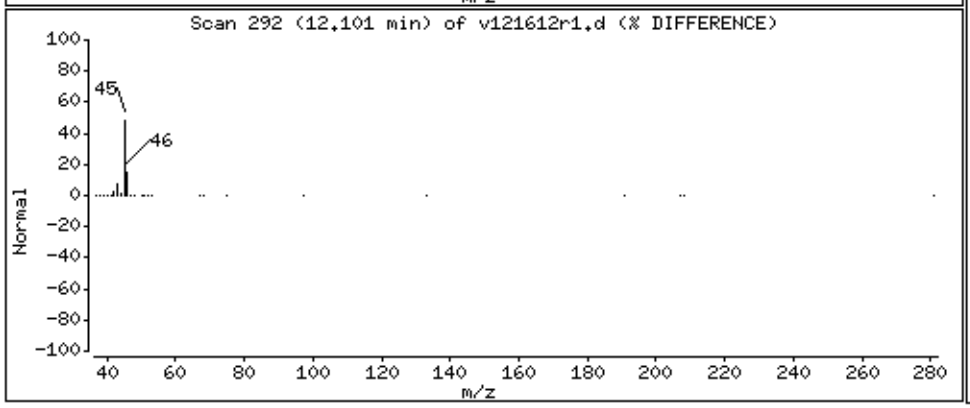
24 Ethanol

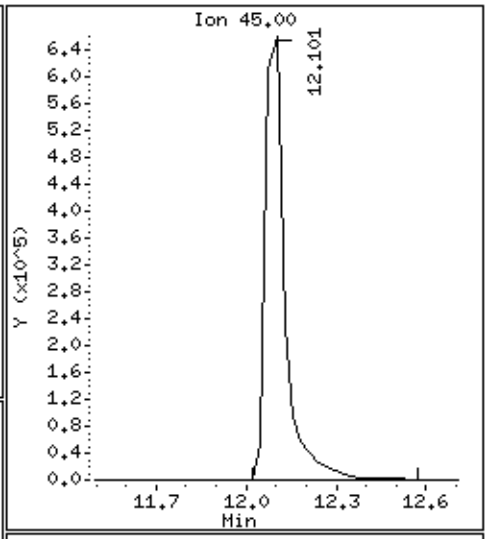
Concentration: 442.03 PPBV

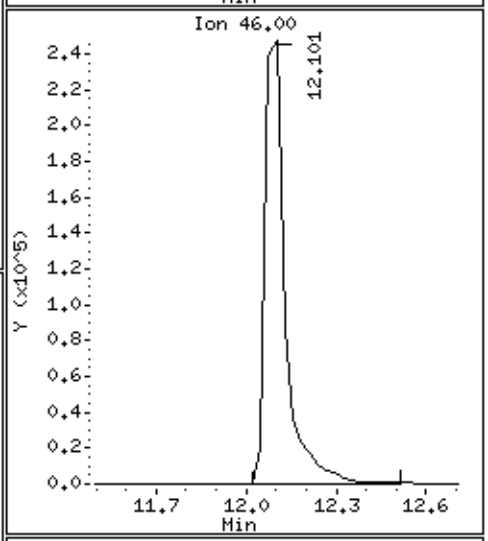


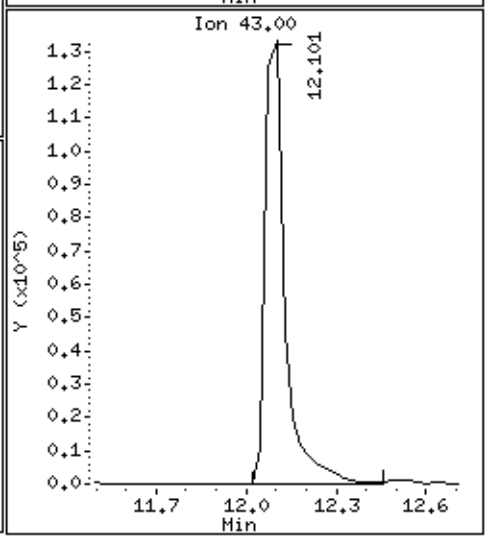



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

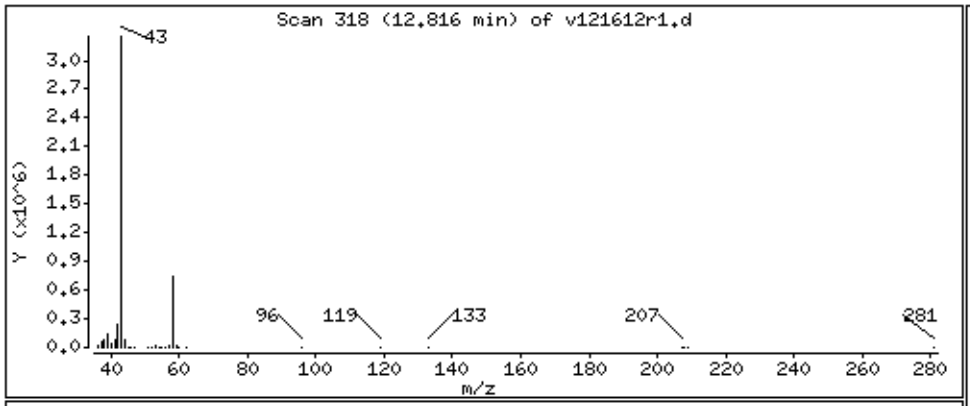
Operator: sn

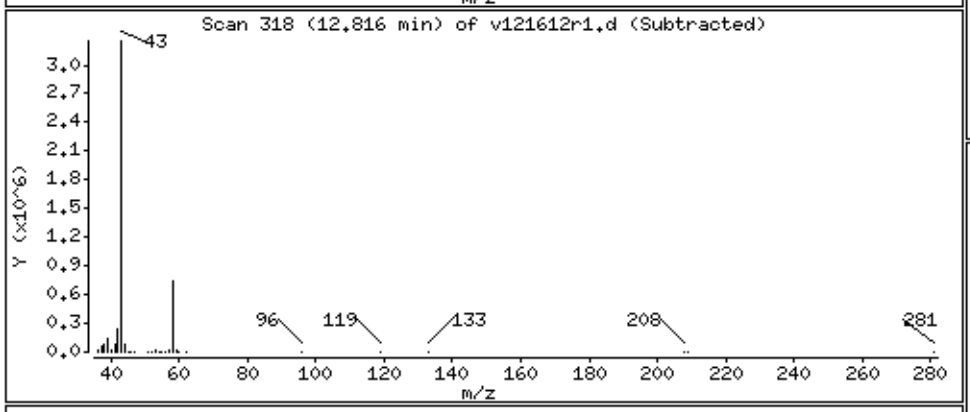
Column phase: RTx-624

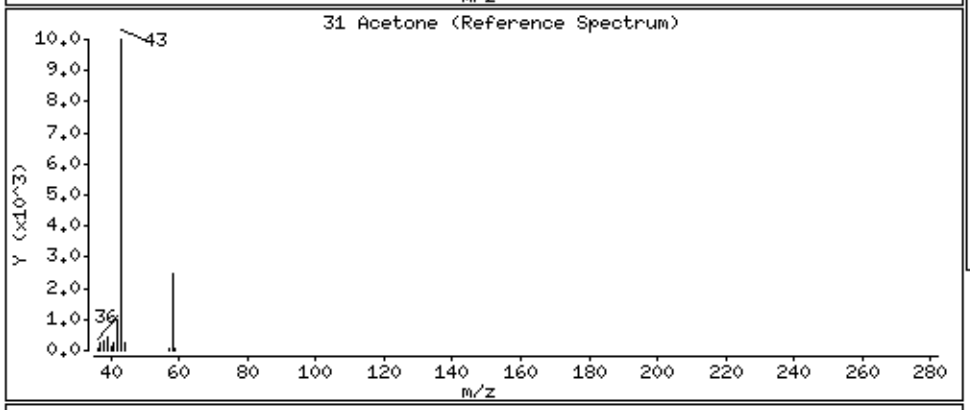
Column diameter: 0.32

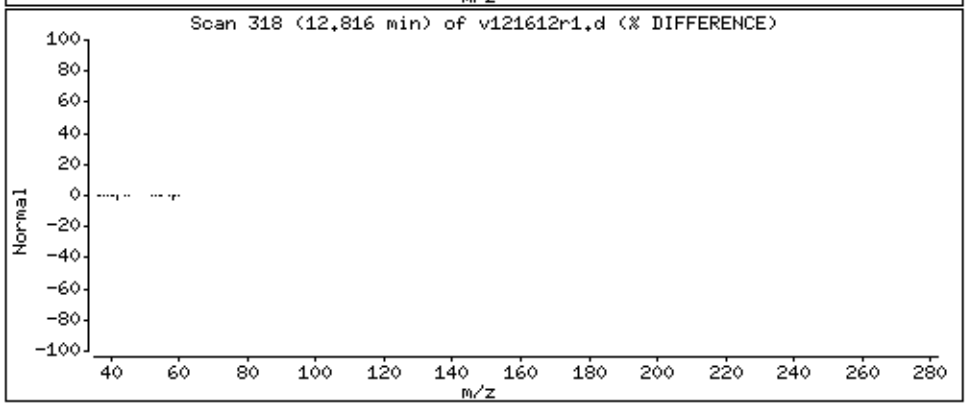
31 Acetone

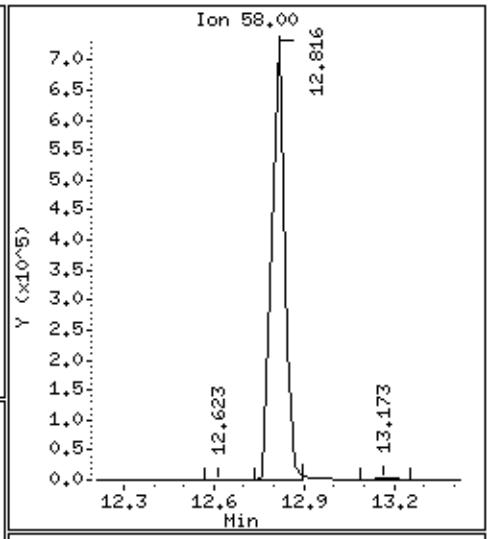
Concentration: 274.18 PPBV

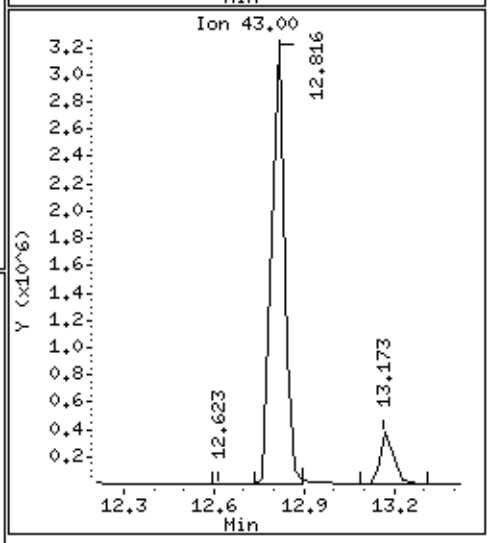


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

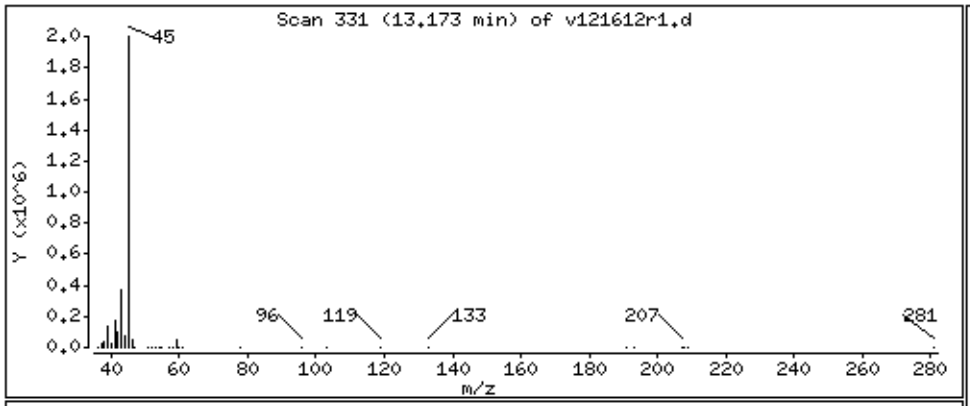
Operator: sn

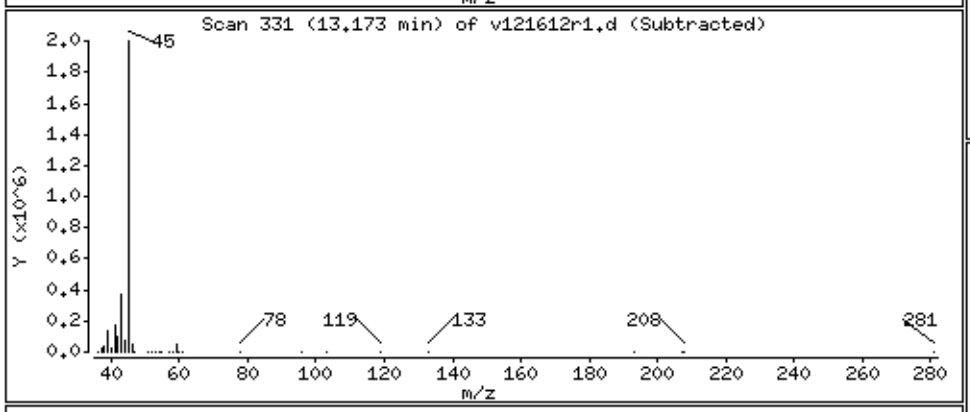
Column phase: RTx-624

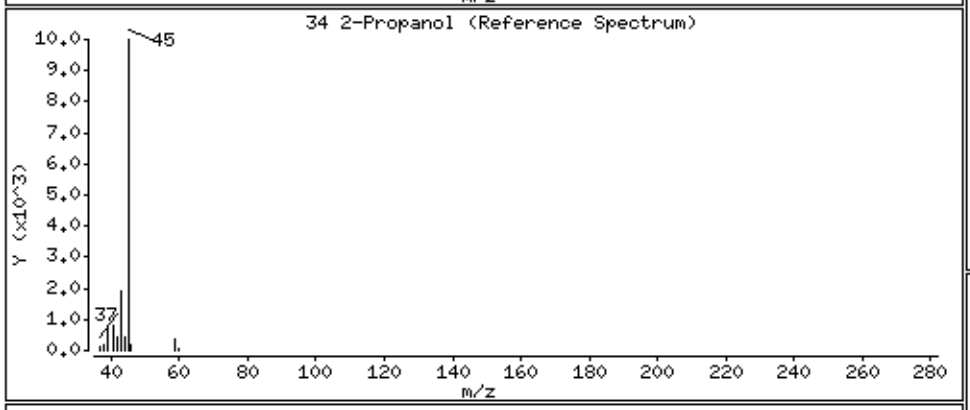
Column diameter: 0.32

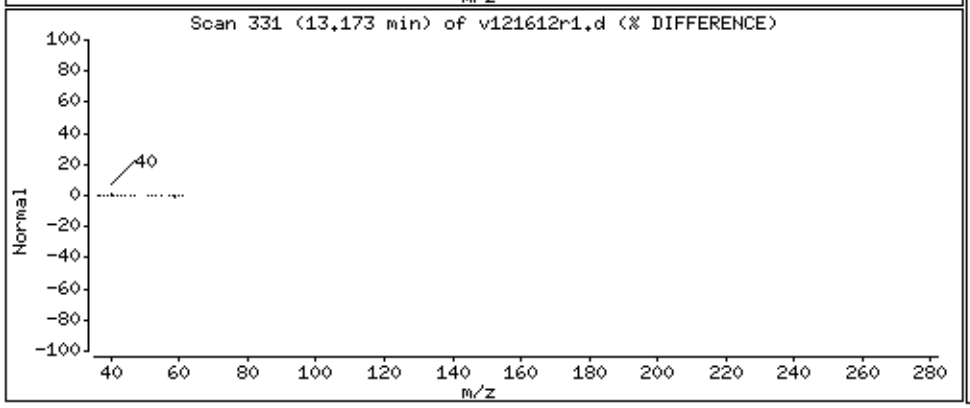
34 2-Propanol

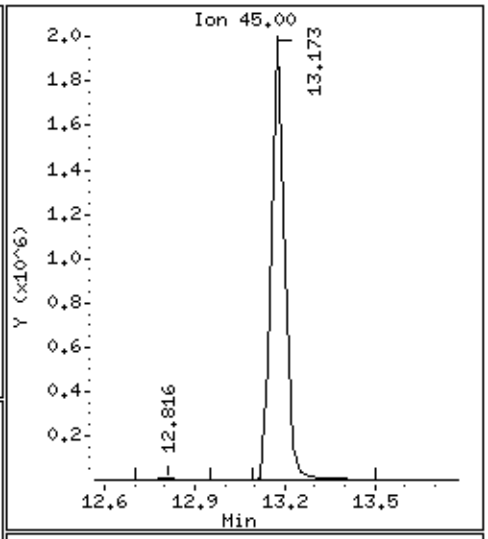
Concentration: 167.82 PPBV

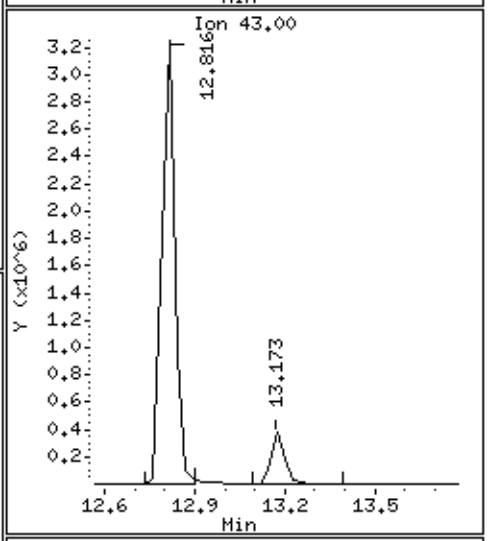


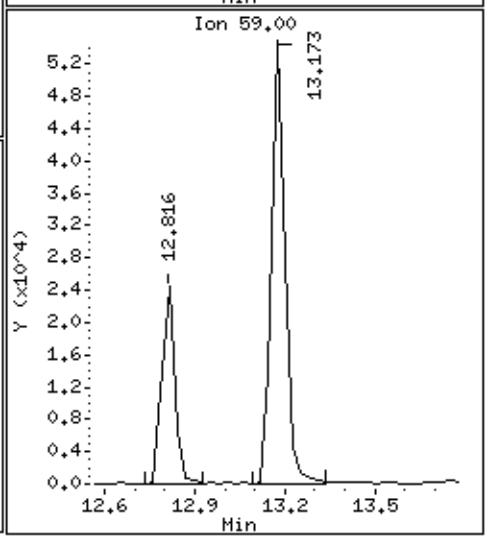



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

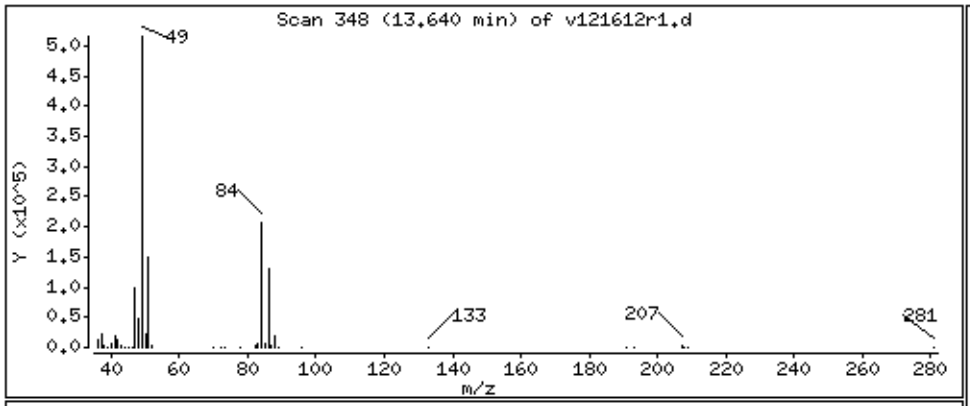
Operator: sn

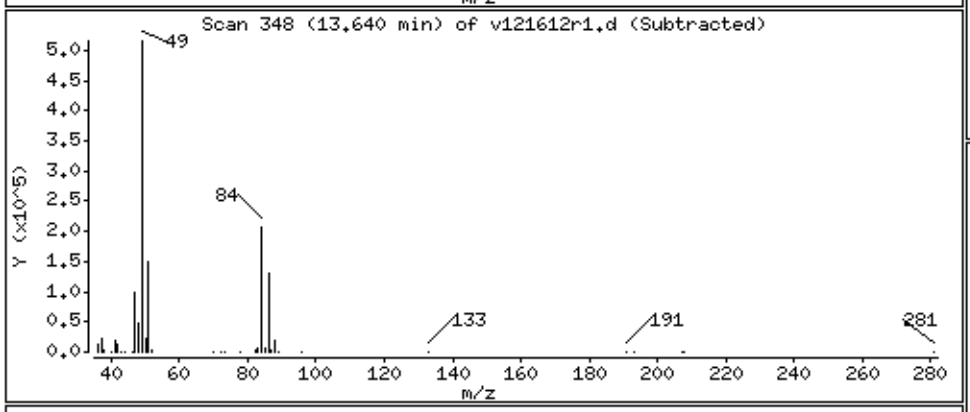
Column phase: RTx-624

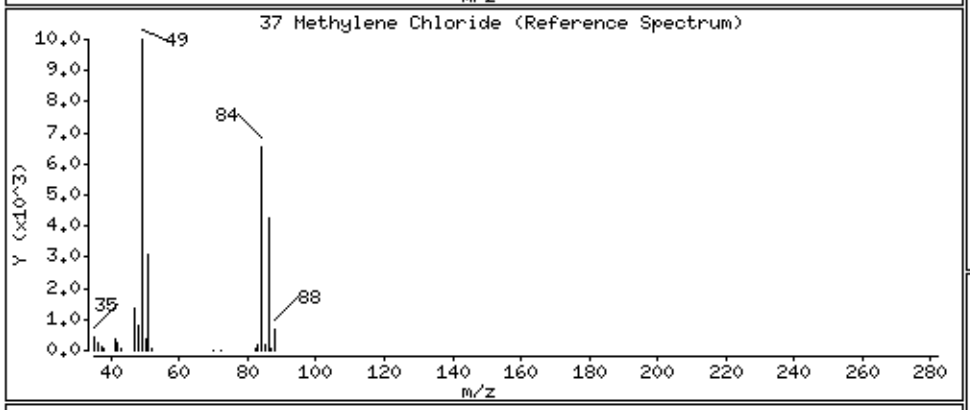
Column diameter: 0.32

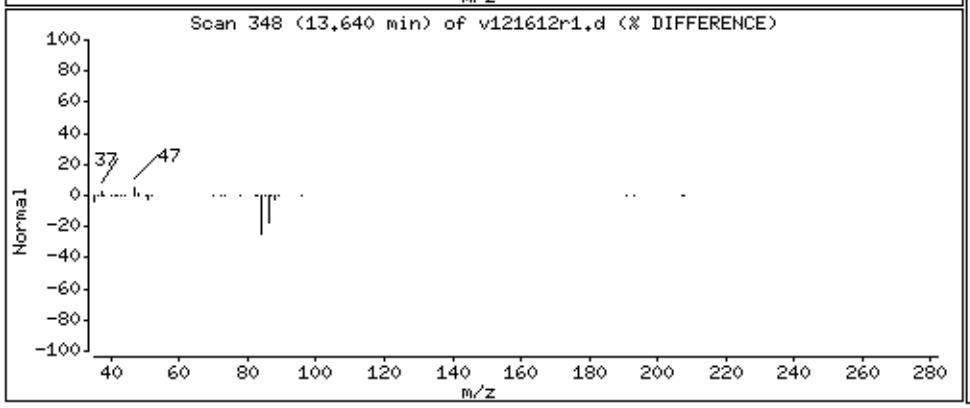
37 Methylene Chloride

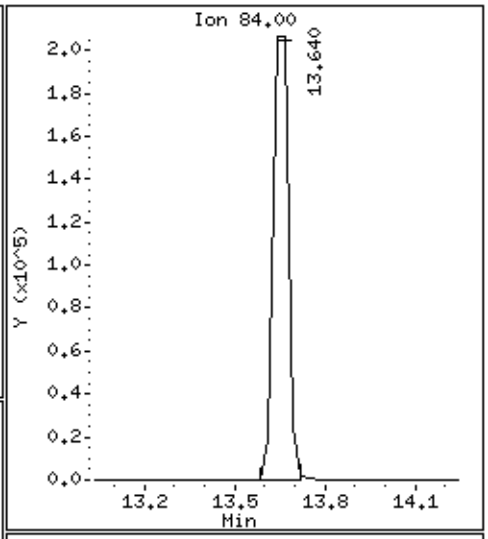
Concentration: 73.781 PPBV

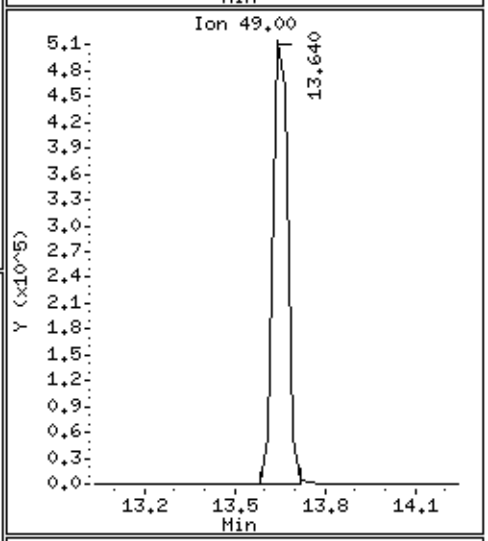


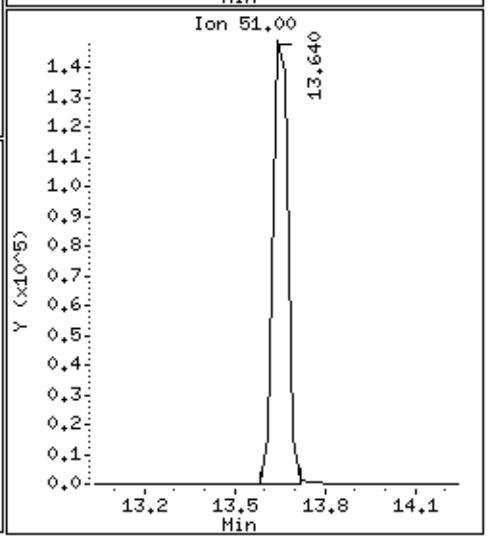



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

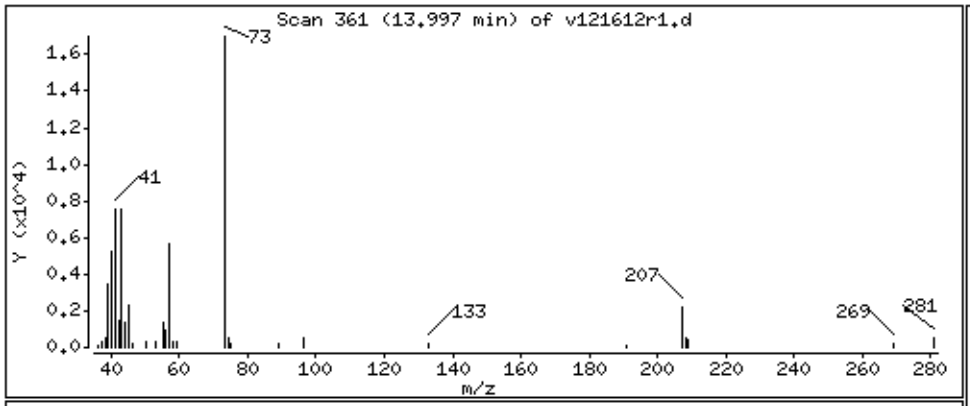
Operator: sn

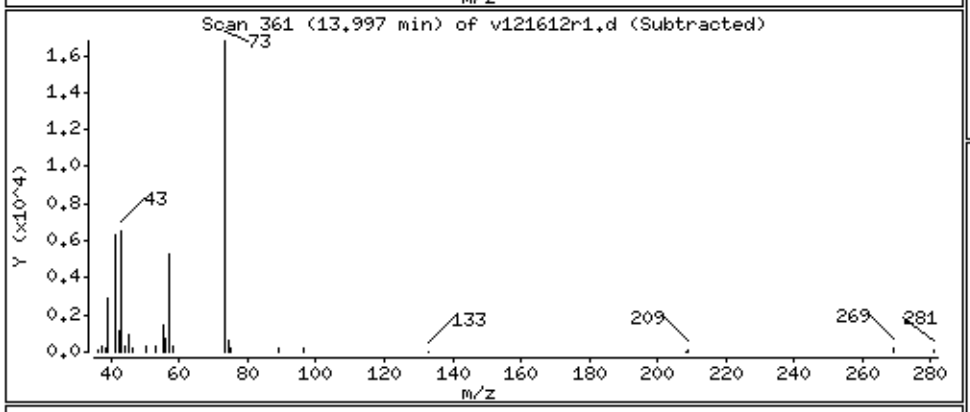
Column phase: RTx-624

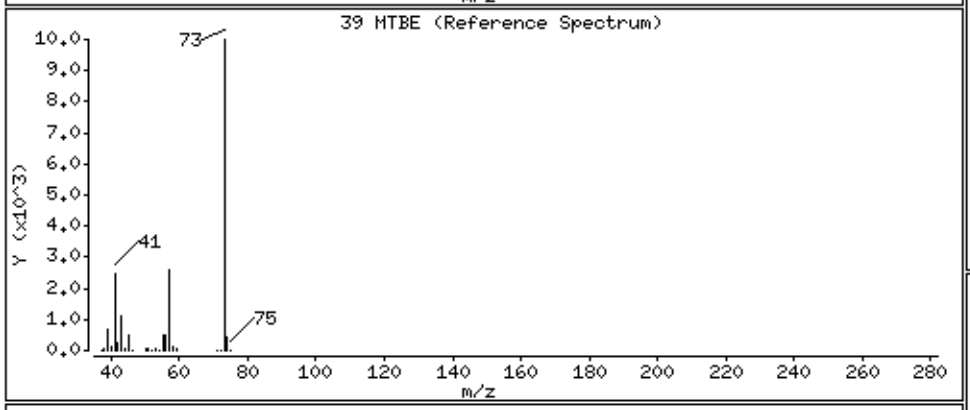
Column diameter: 0.32

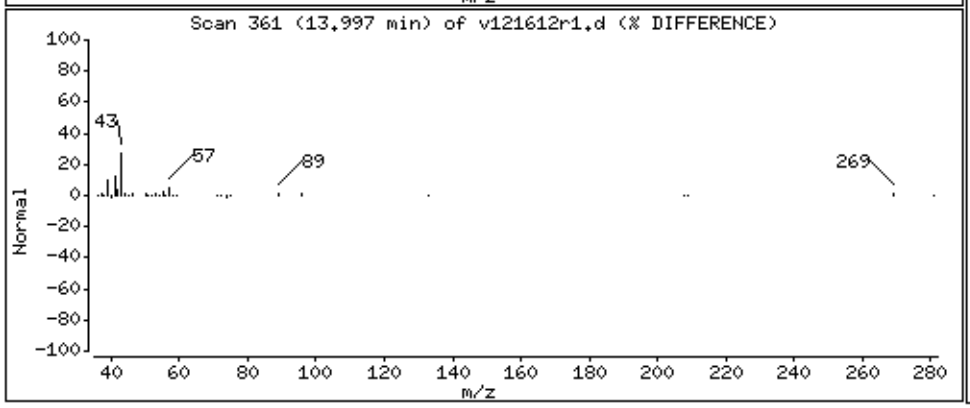
39 MTBE

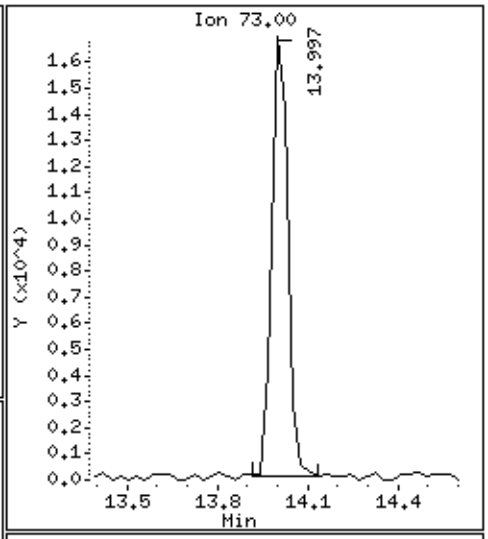
Concentration: 1.726 PPBV

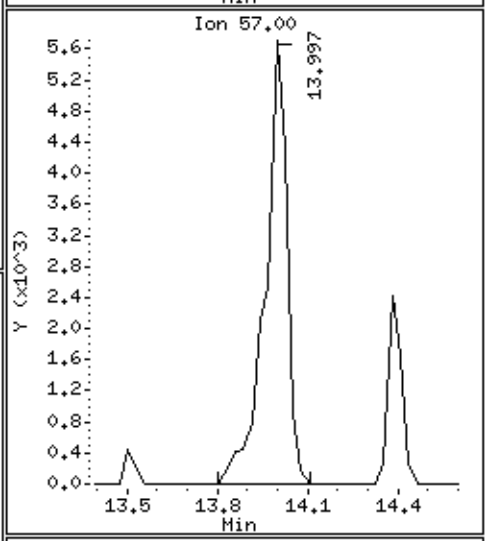


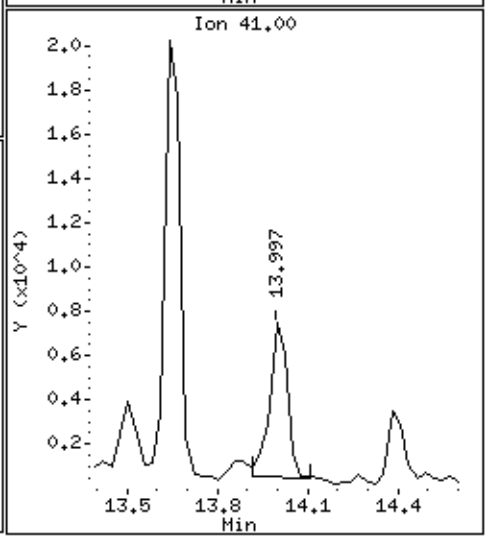



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

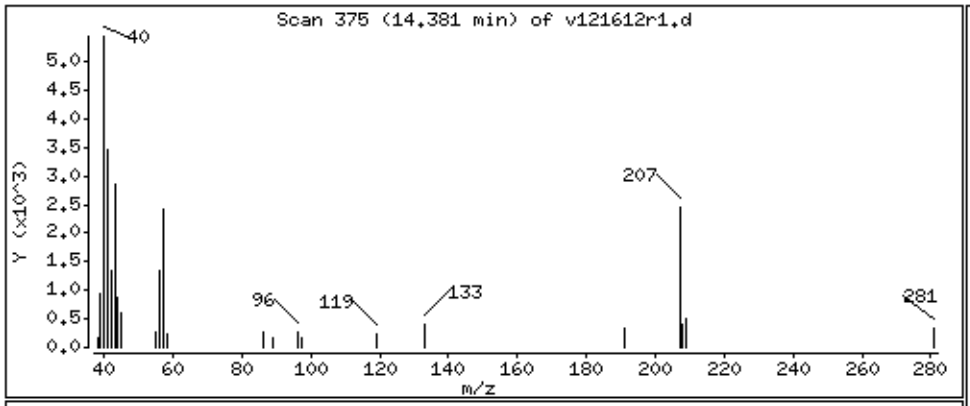
Operator: sn

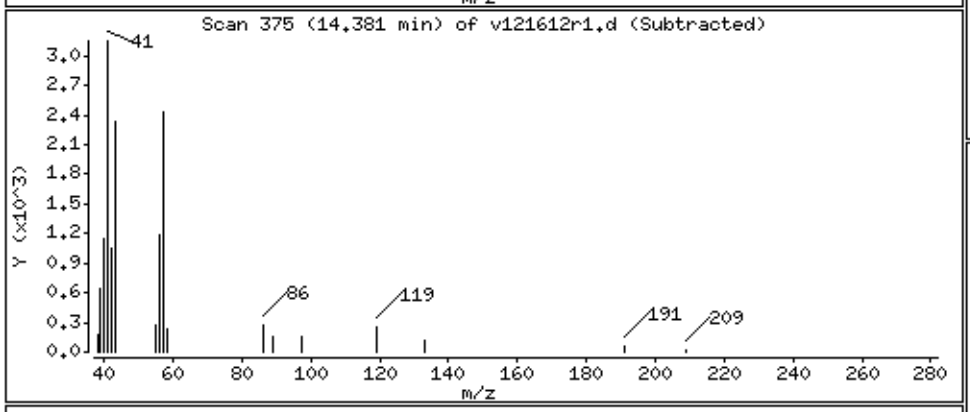
Column phase: RTx-624

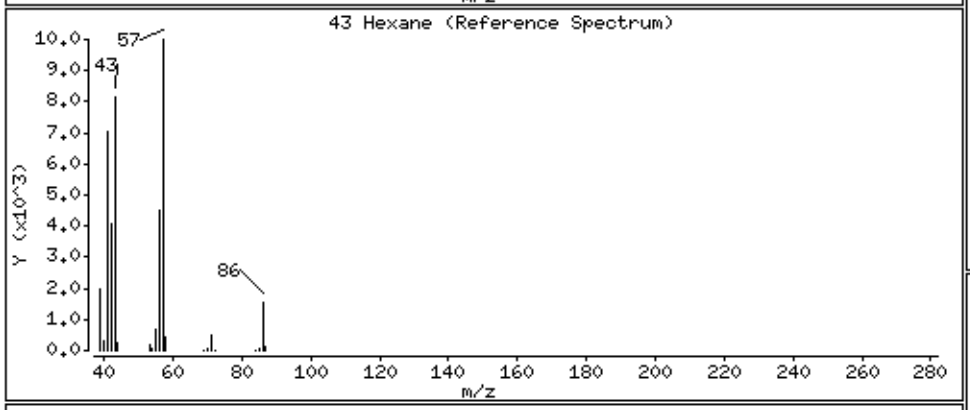
Column diameter: 0.32

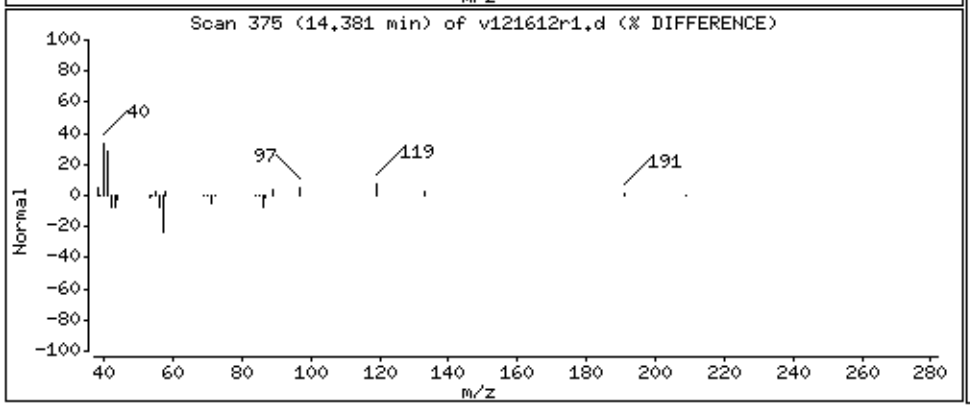
43 Hexane

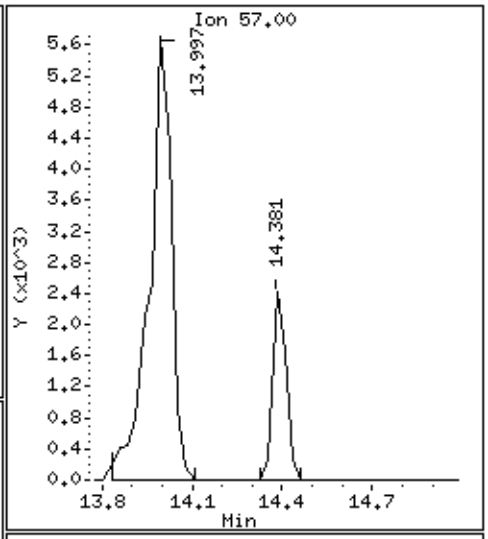
Concentration: 0.2597 PPBV

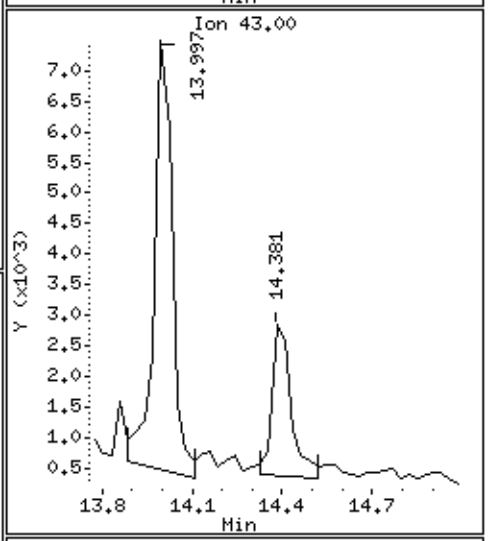


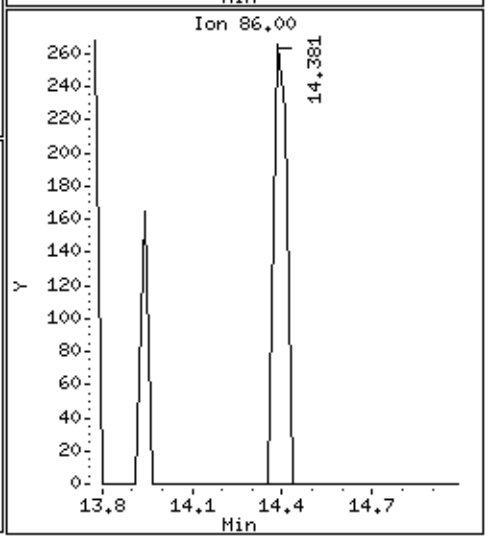



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

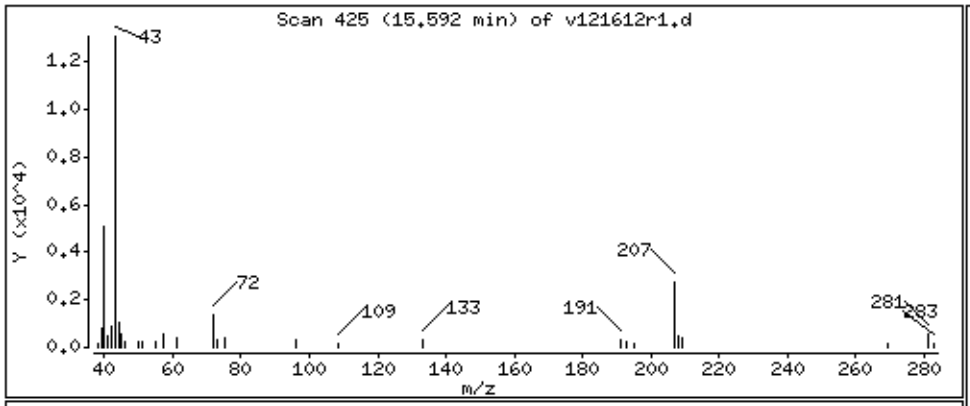
Operator: sn

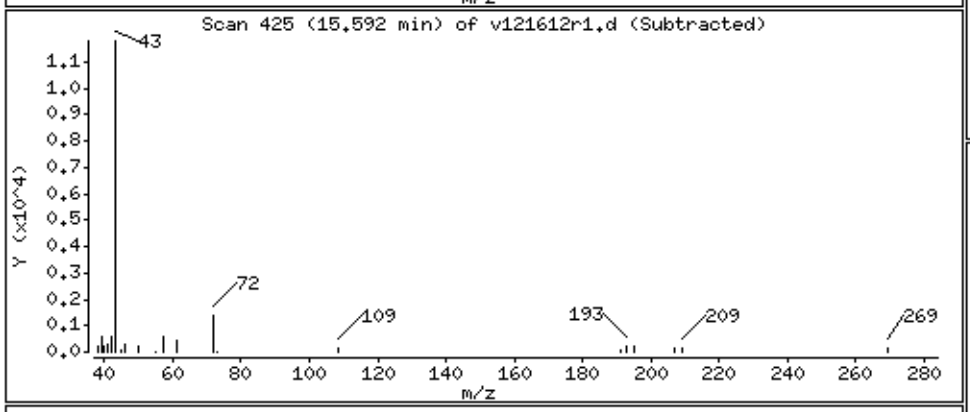
Column phase: RTx-624

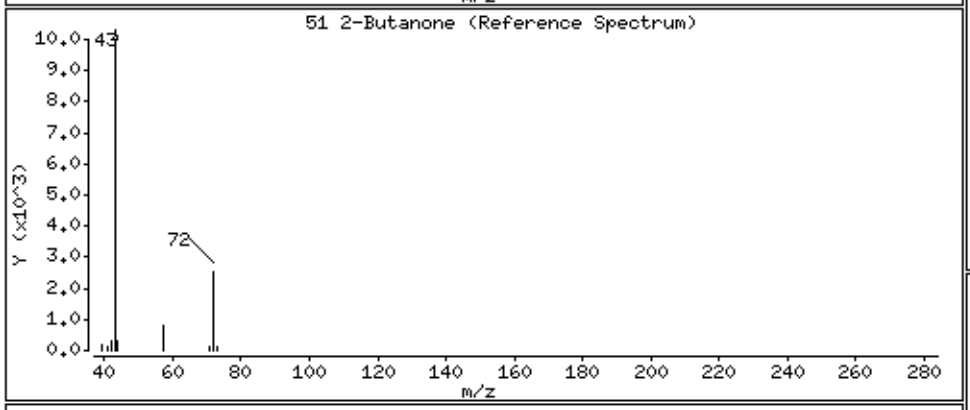
Column diameter: 0.32

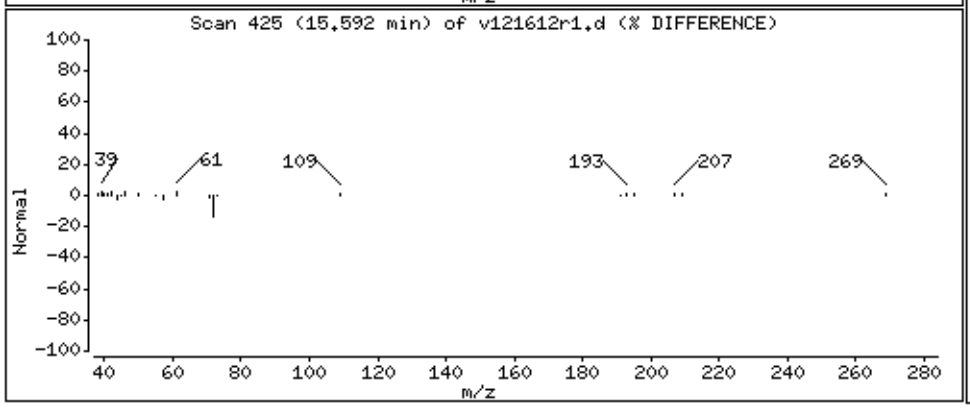
51 2-Butanone

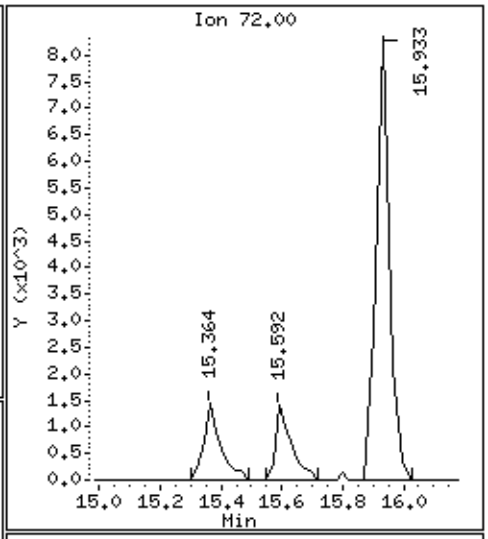
Concentration: 0.8668 PPBV

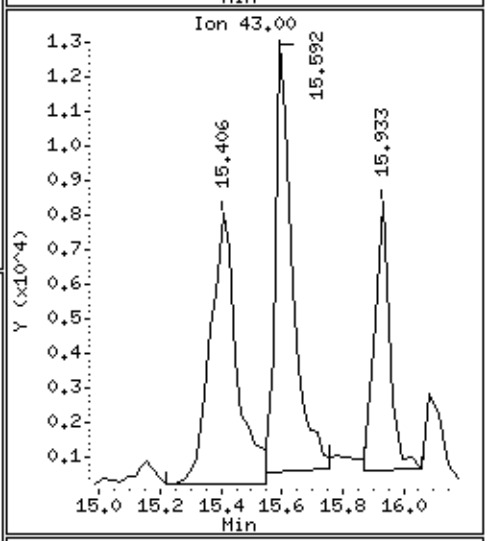


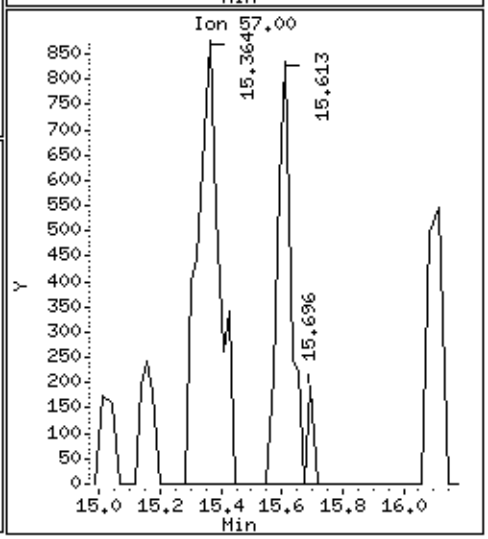



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

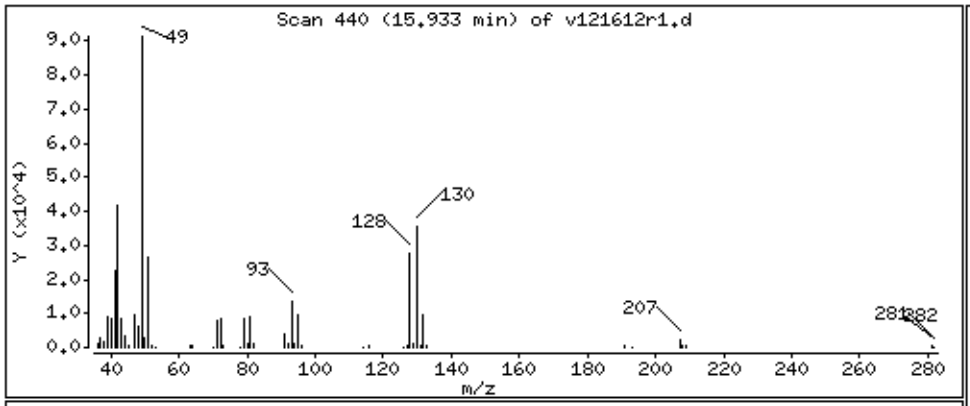
Operator: sn

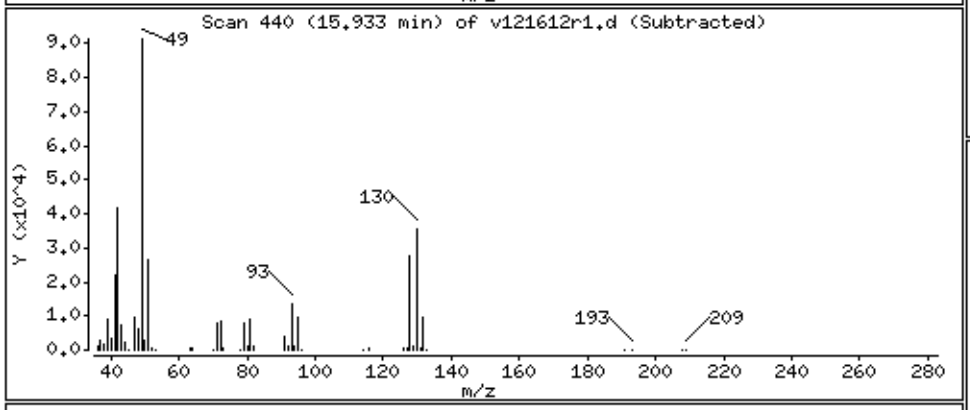
Column phase: RTx-624

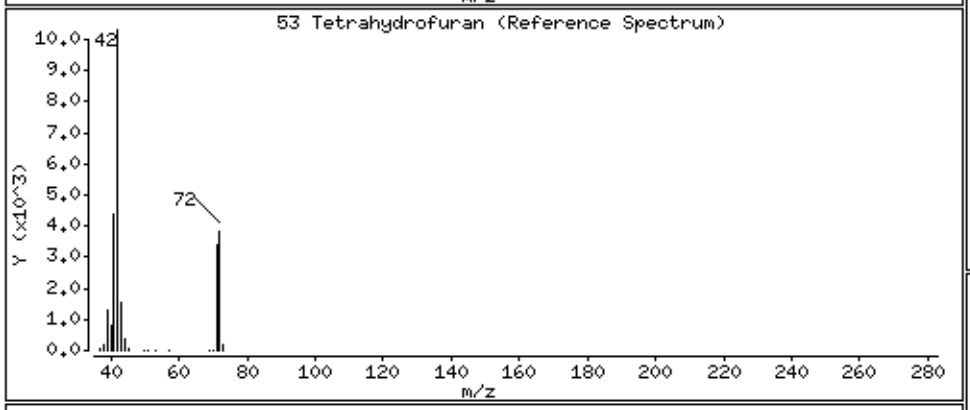
Column diameter: 0.32

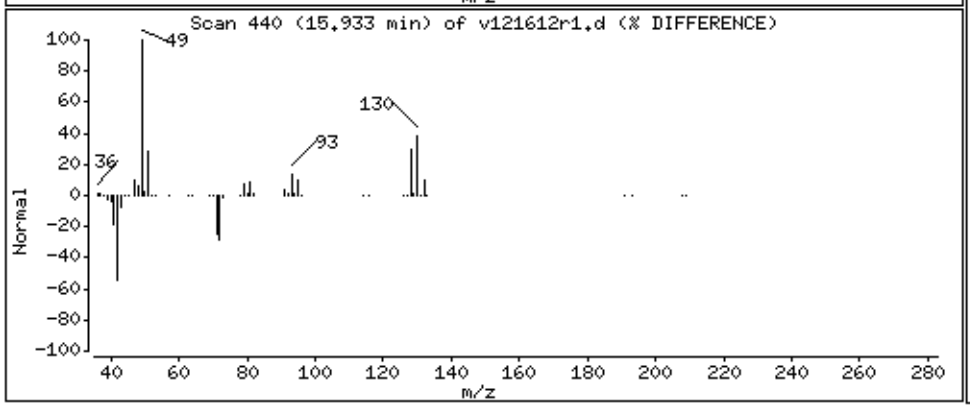
53 Tetrahydrofuran

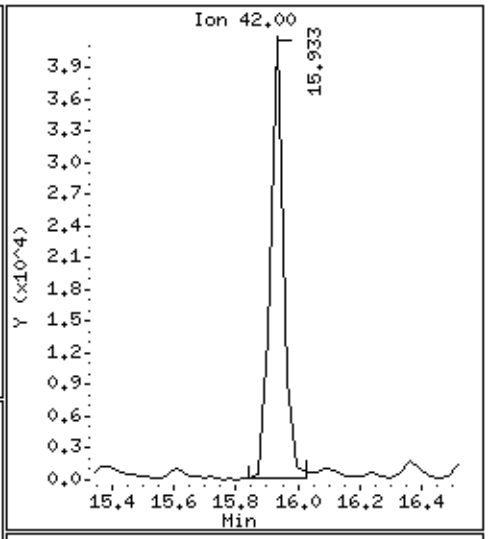
Concentration: 4.041 PPBV

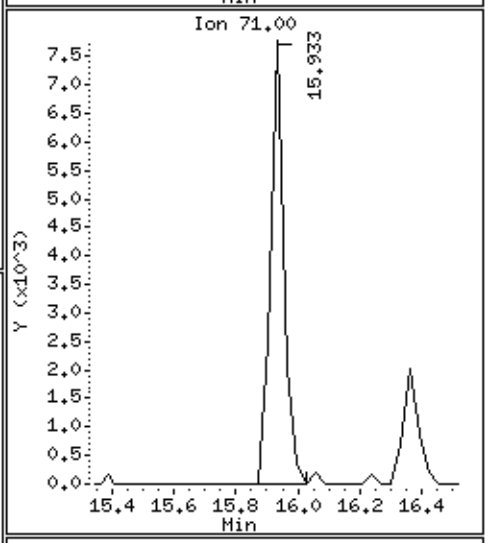


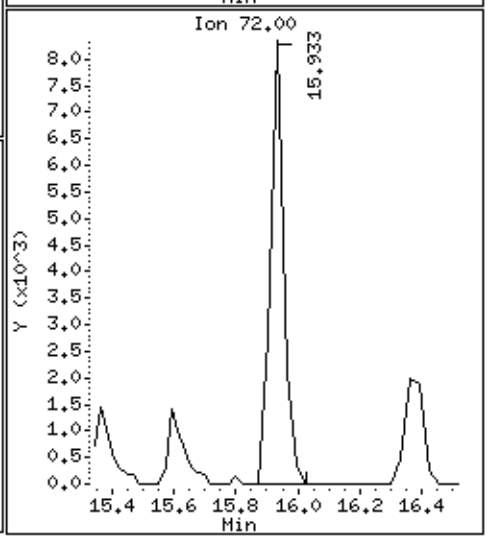



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

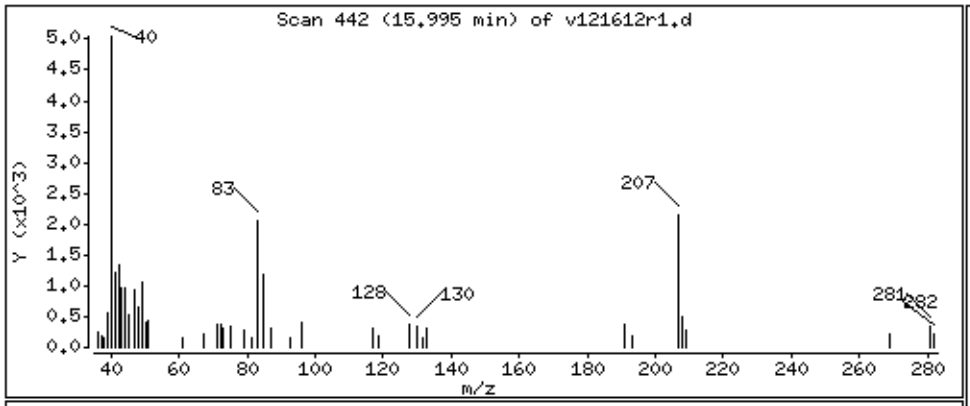
Operator: sn

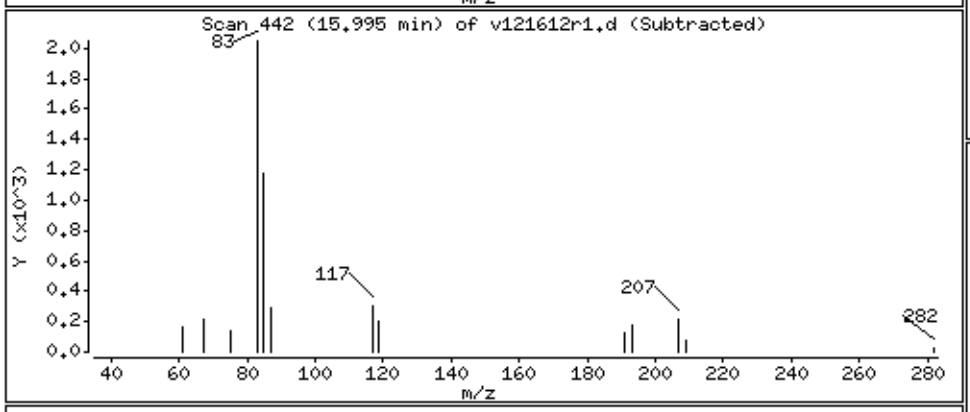
Column phase: RTx-624

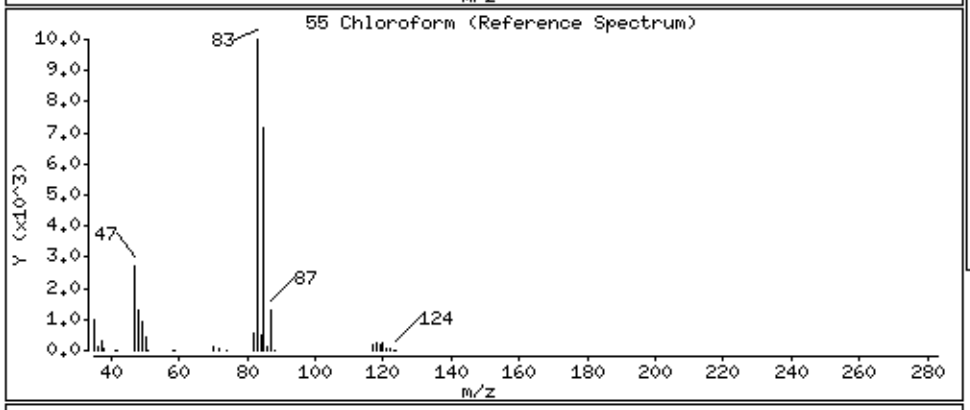
Column diameter: 0.32

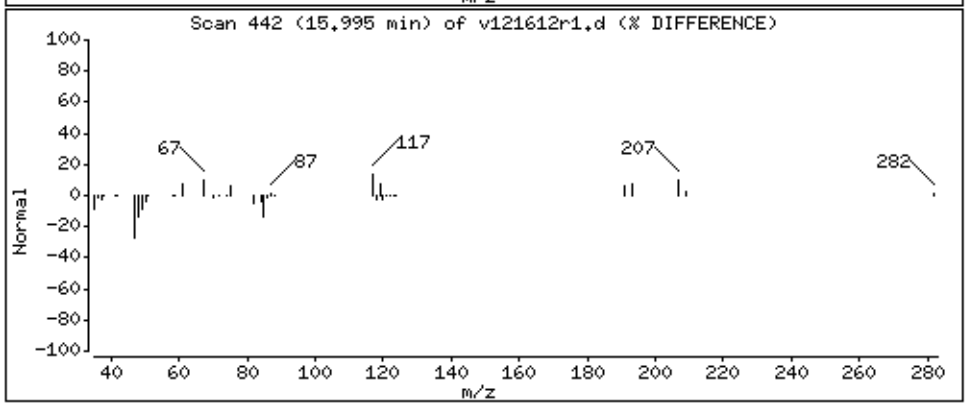
55 Chloroform

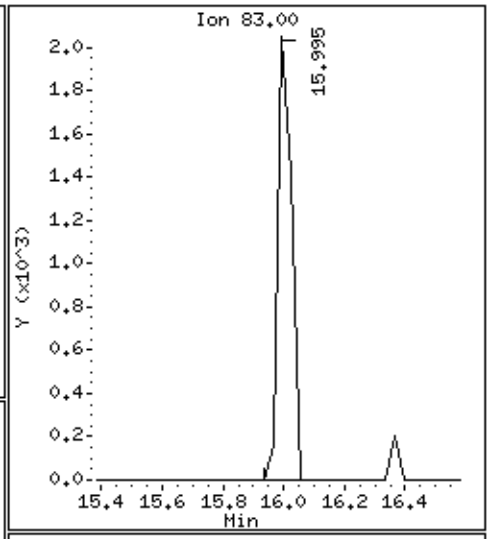
Concentration: 0.2372 PPBV

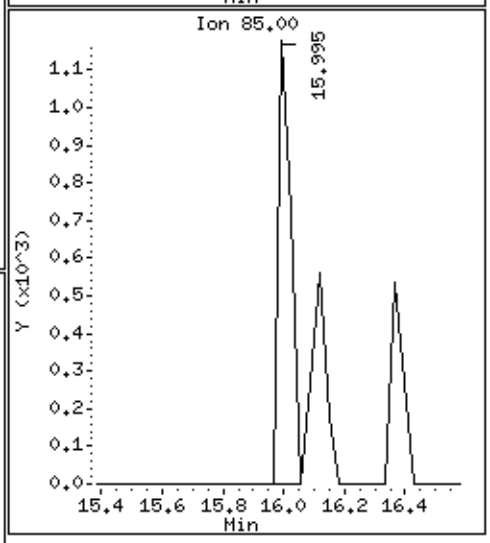


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

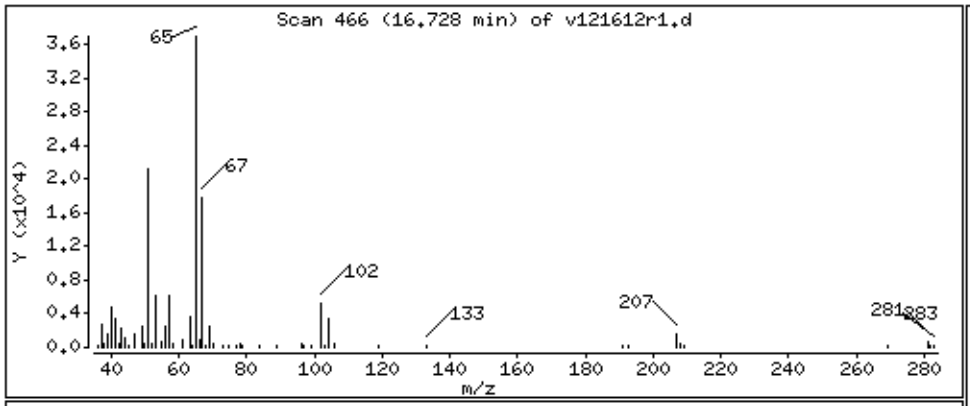
Operator: sn

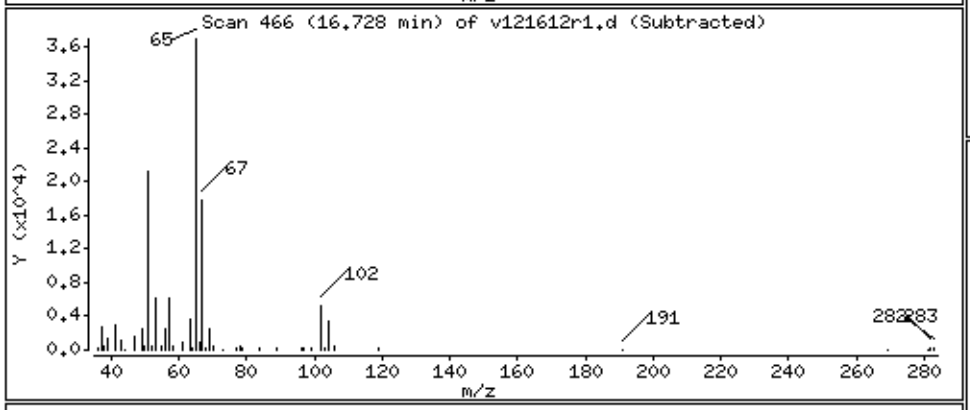
Column phase: RTx-624

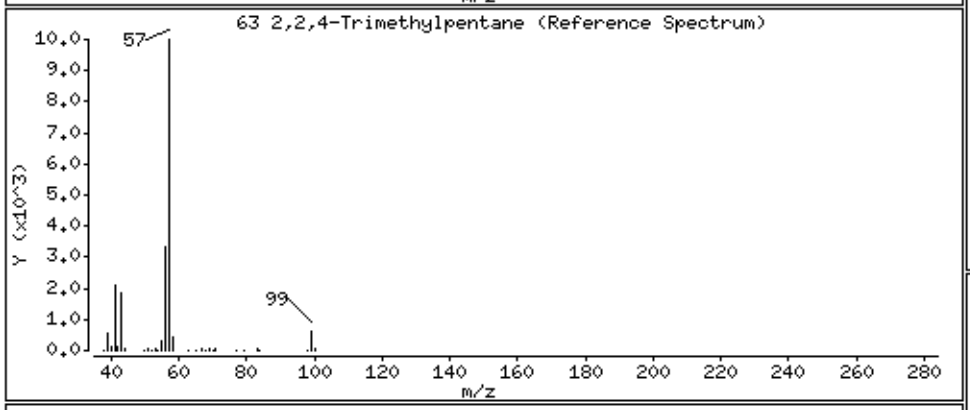
Column diameter: 0.32

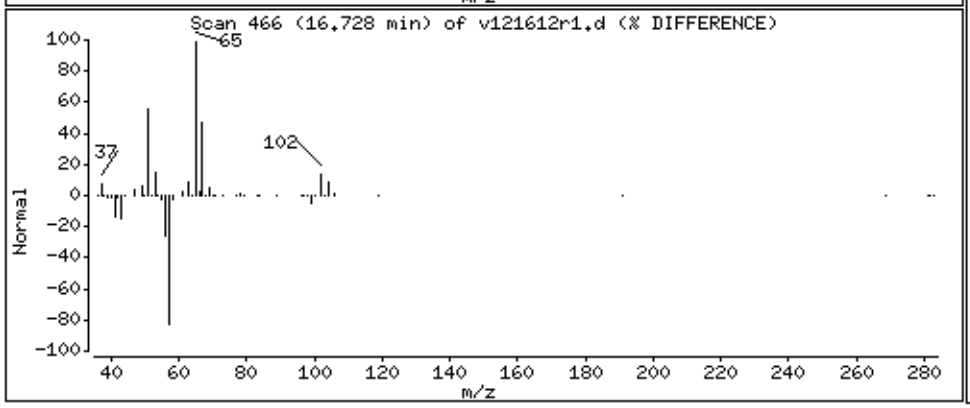
63 2,2,4-Trimethylpentane

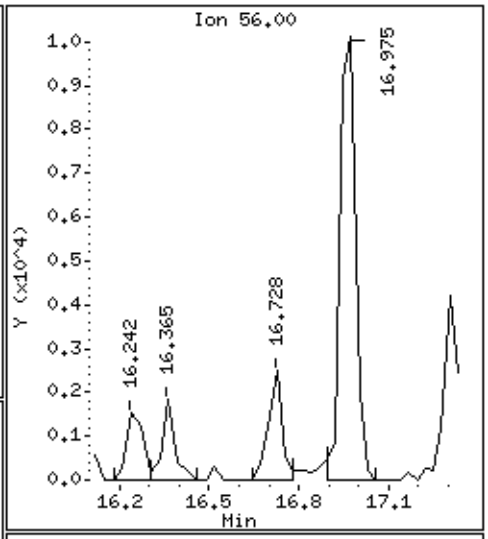
Concentration: 0.2756 PPBV

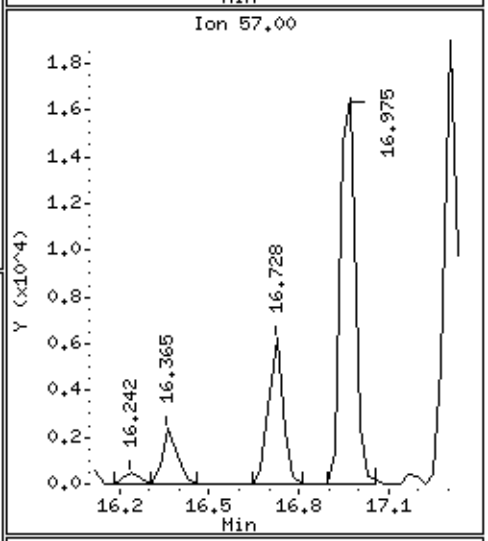


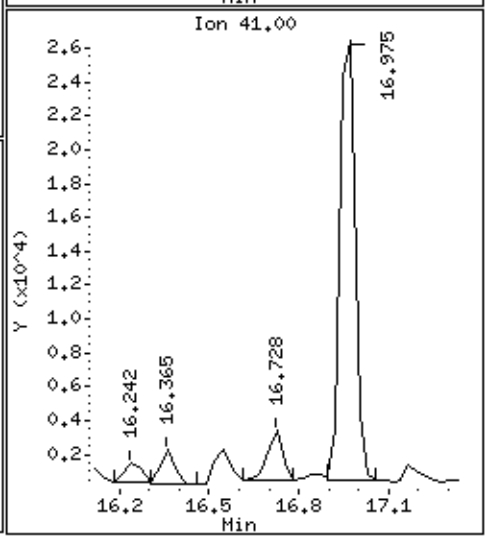



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

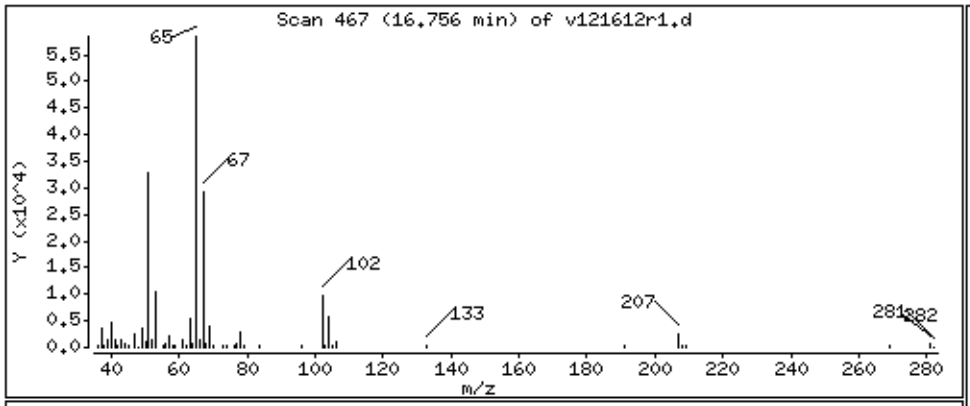
Operator: sn

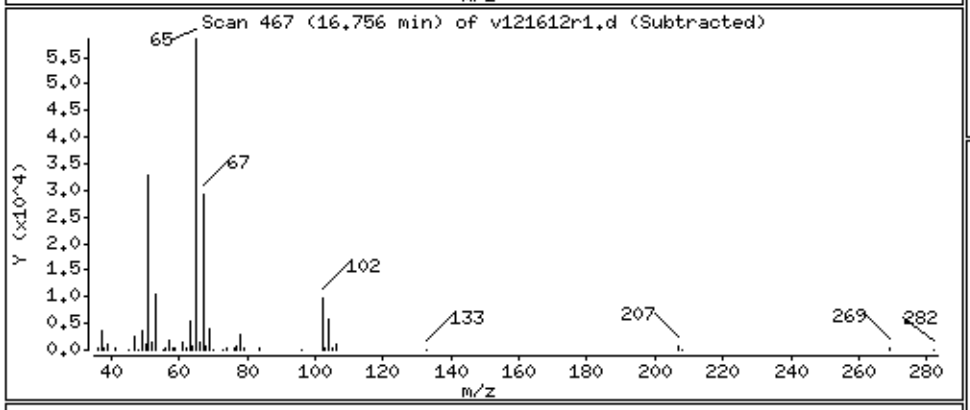
Column phase: RTx-624

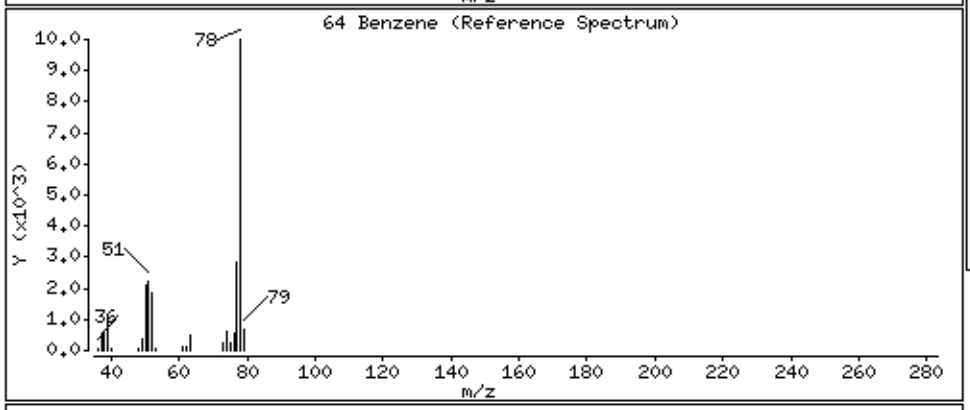
Column diameter: 0.32

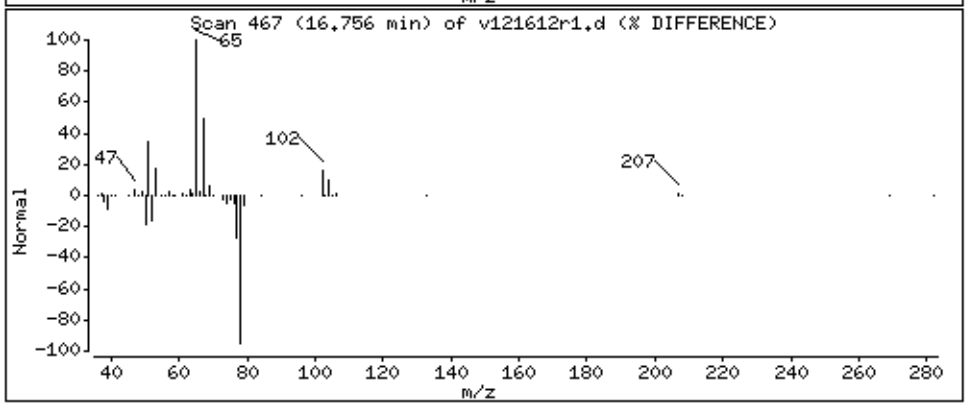
64 Benzene

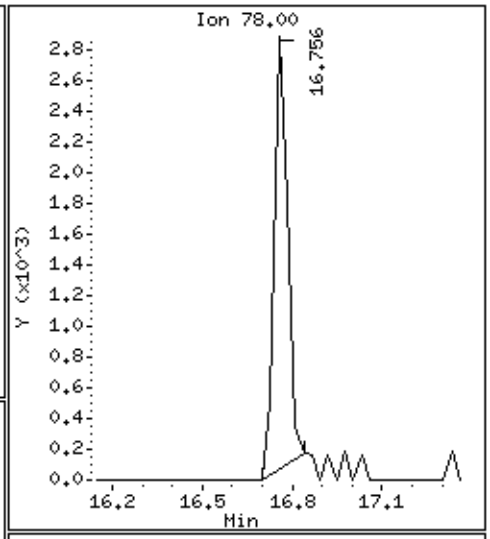
Concentration: 0.1968 PPBV

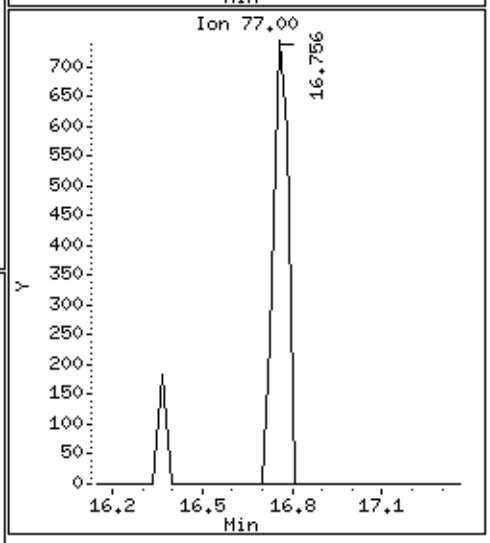


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

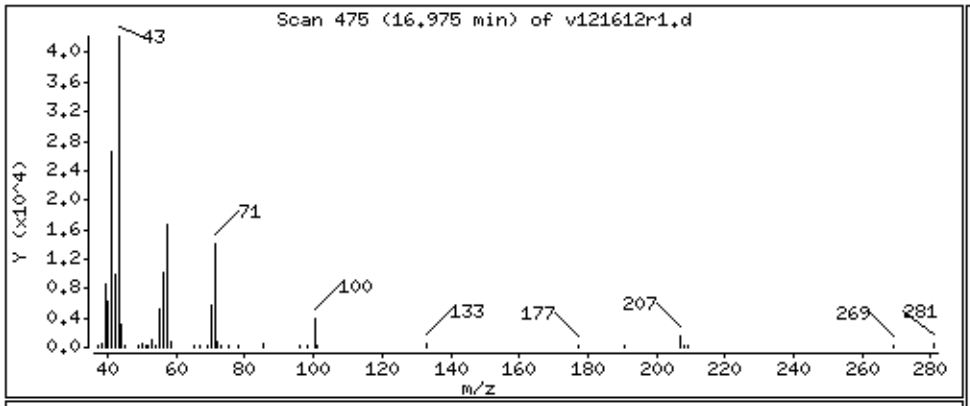
Operator: sn

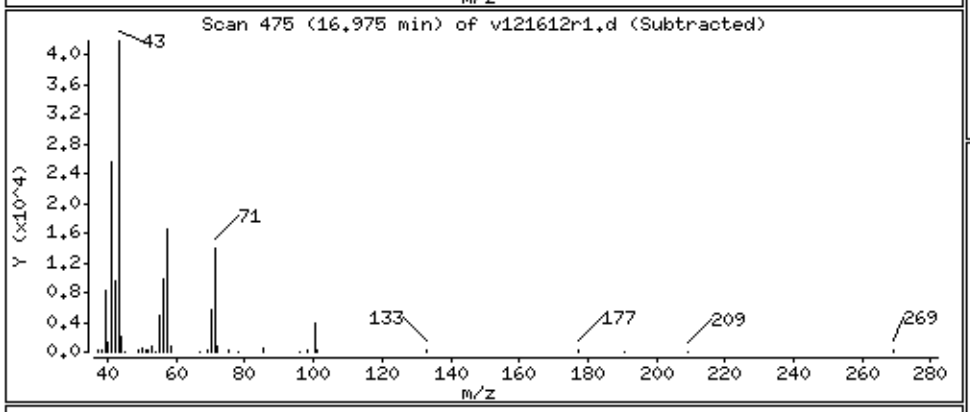
Column phase: RTx-624

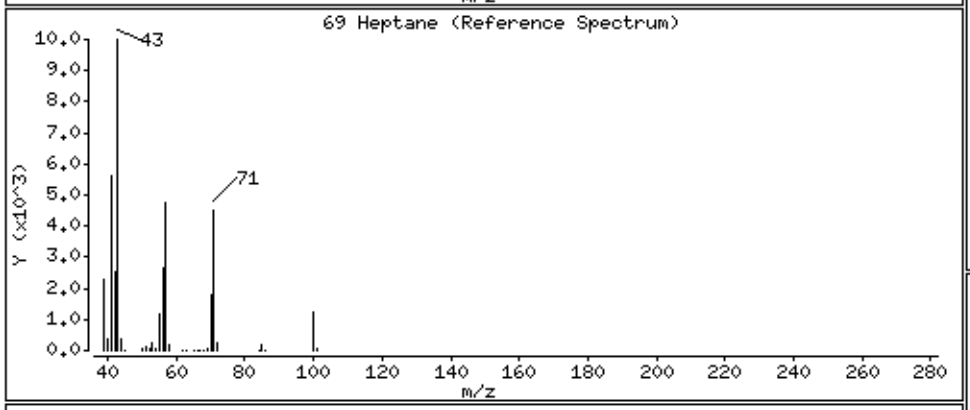
Column diameter: 0.32

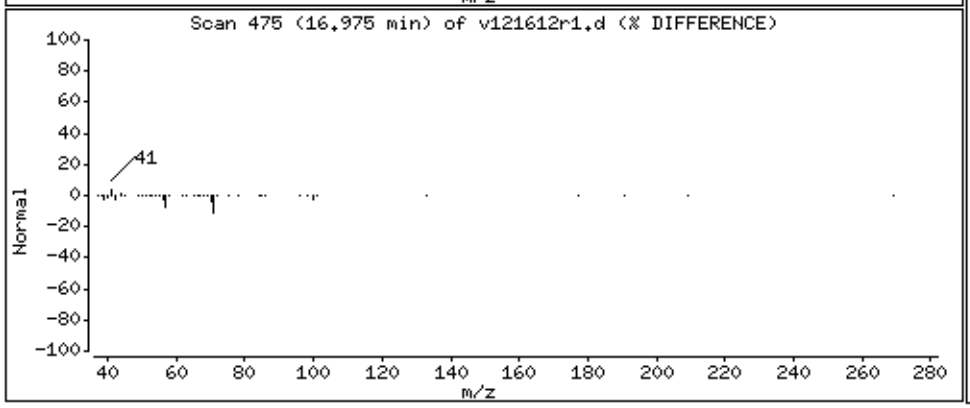
69 Heptane

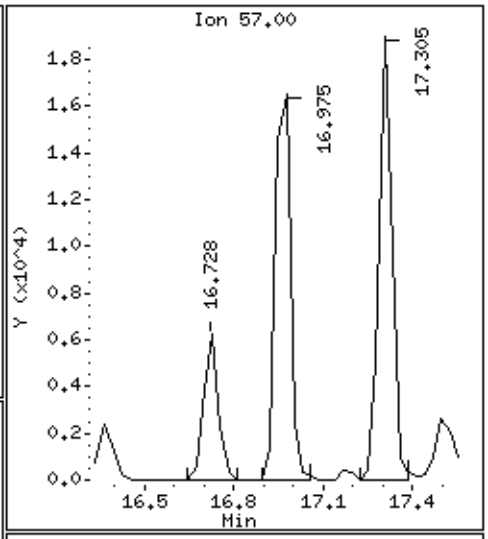
Concentration: 3.116 PPBV

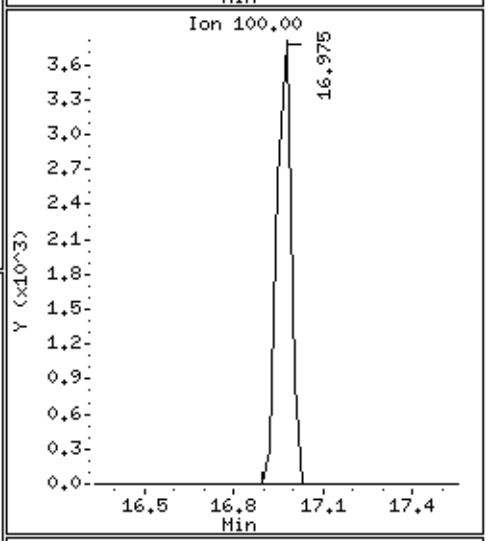


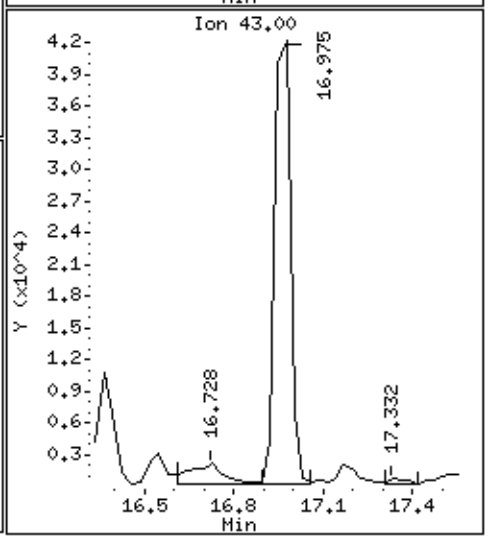



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

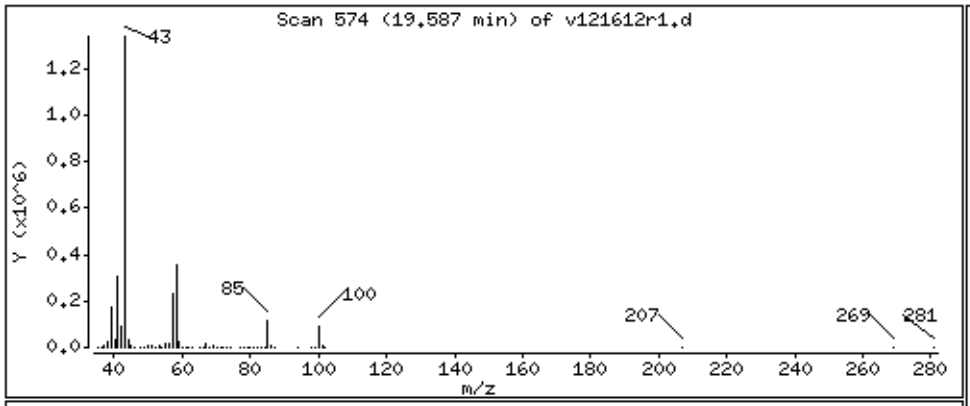
Operator: sn

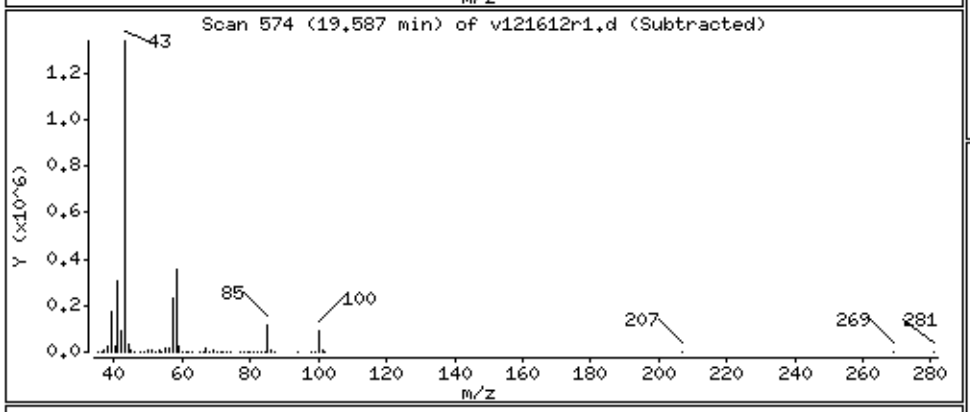
Column phase: RTx-624

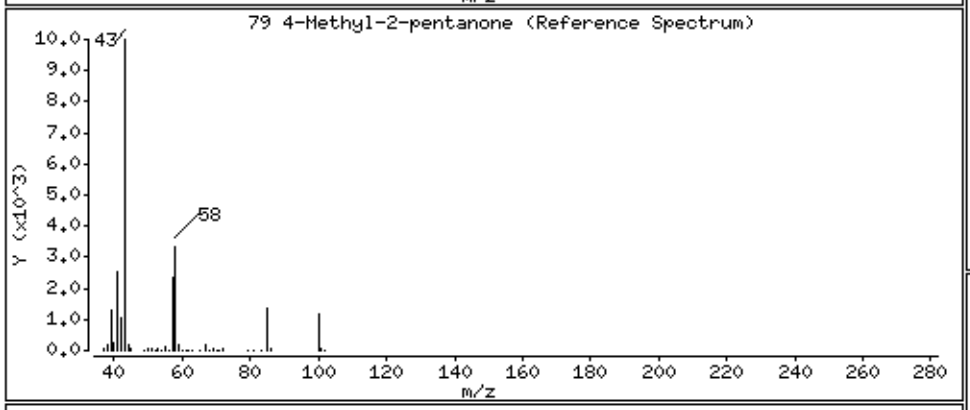
Column diameter: 0.32

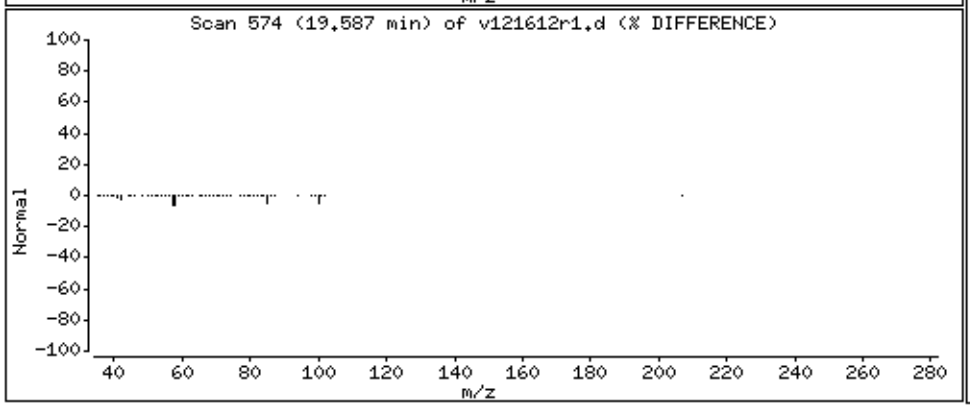
79 4-Methyl-2-pentanone

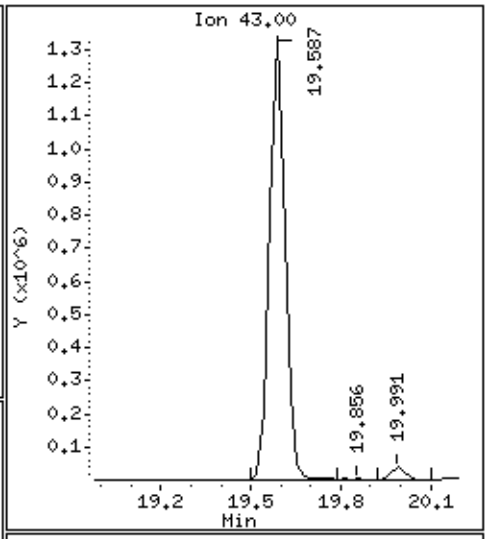
Concentration: 79.032 PPBV

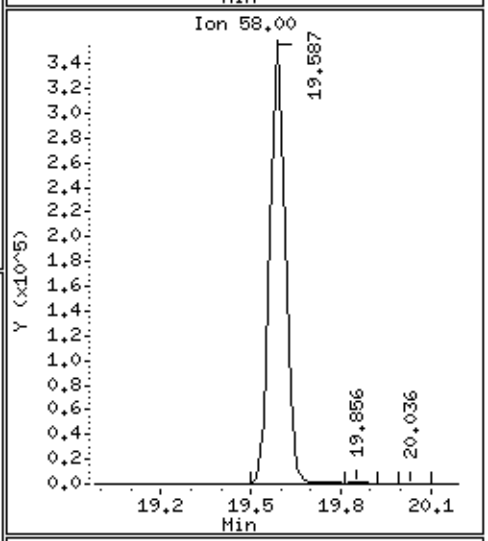


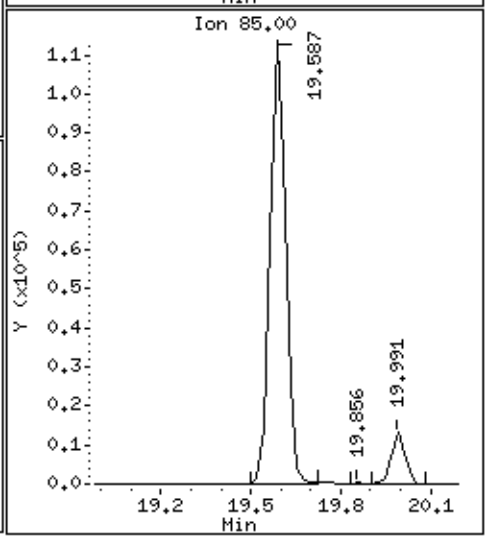



Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

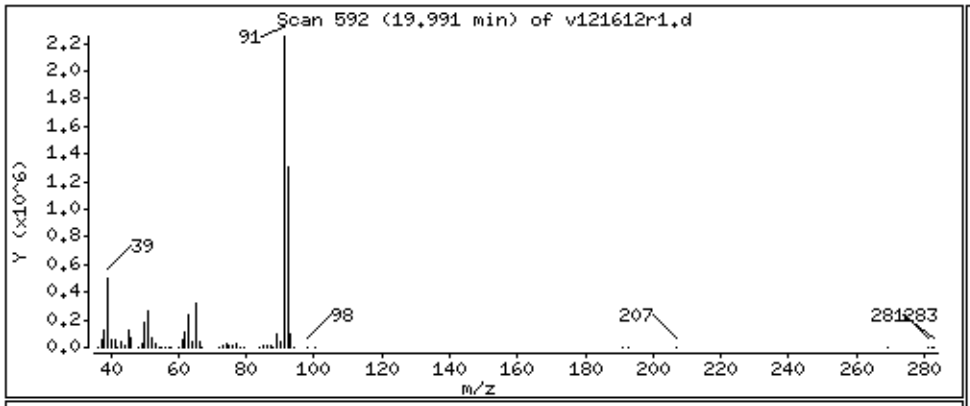
Operator: sn

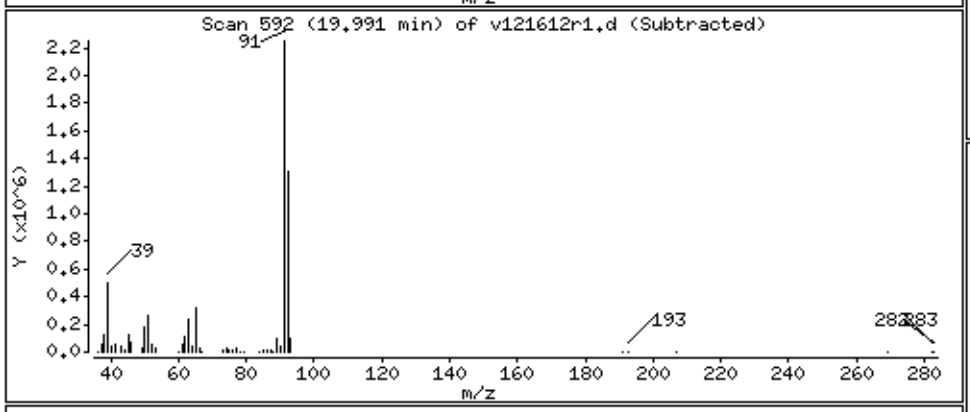
Column phase: RTx-624

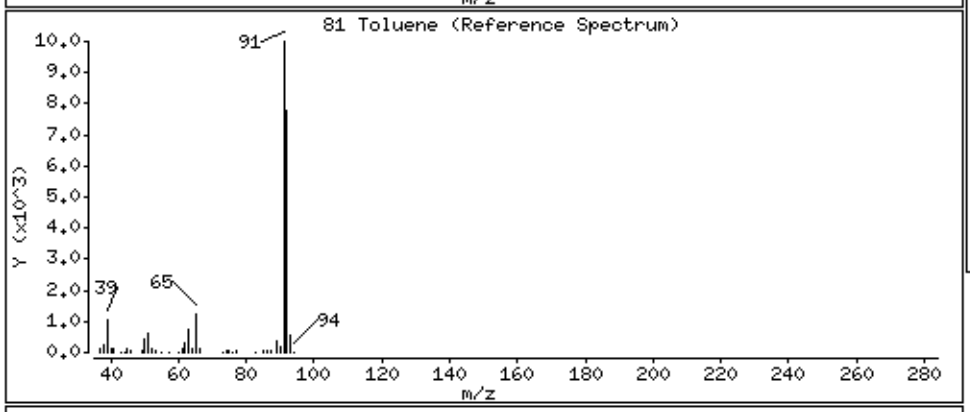
Column diameter: 0.32

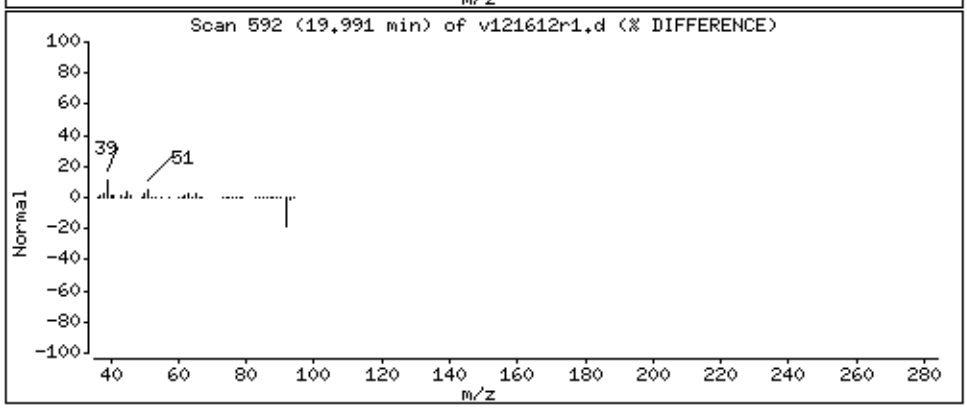
81 Toluene

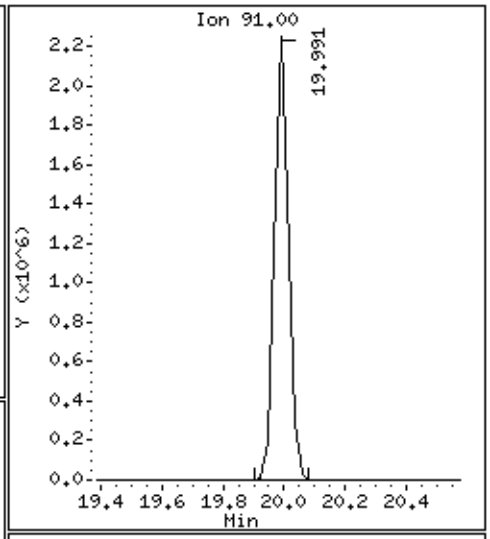
Concentration: 151.11 PPBV

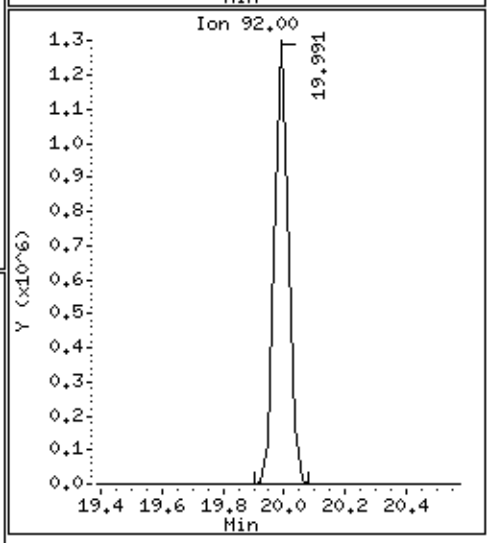


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

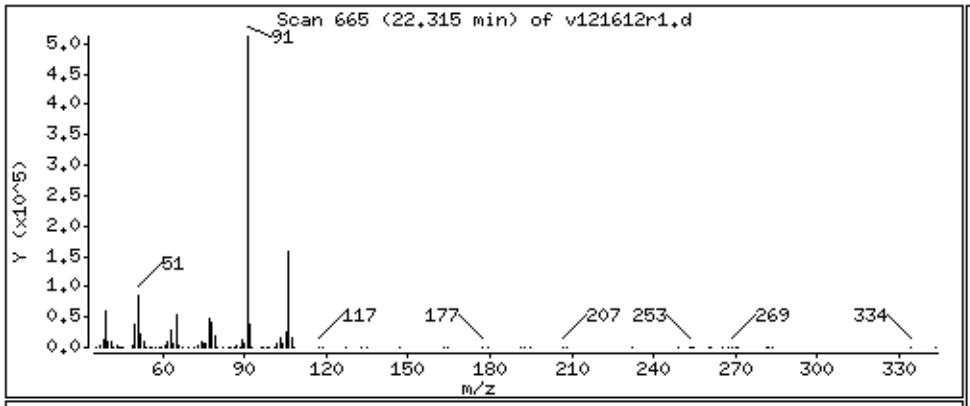
Operator: sn

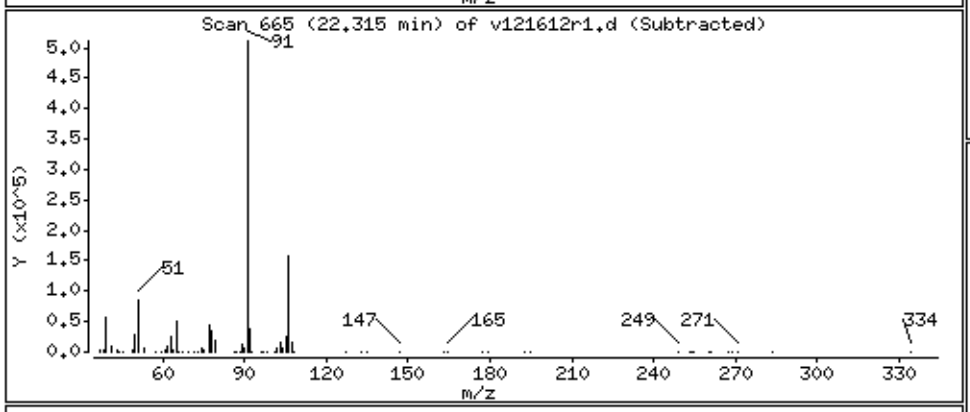
Column phase: RTx-624

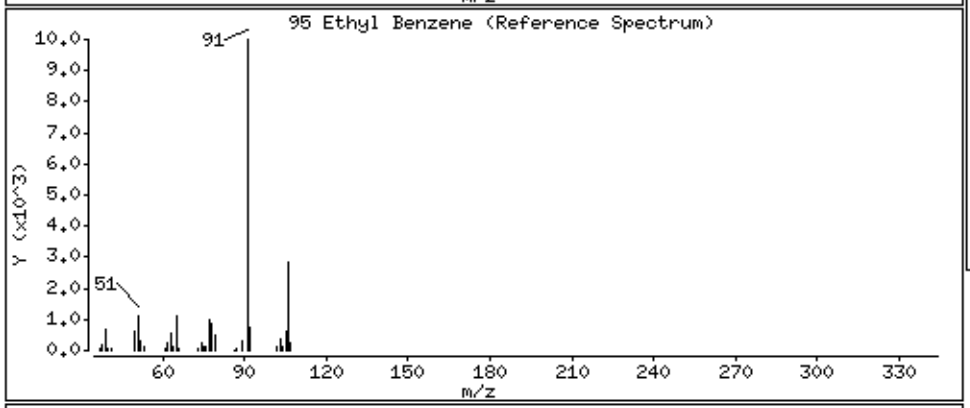
Column diameter: 0.32

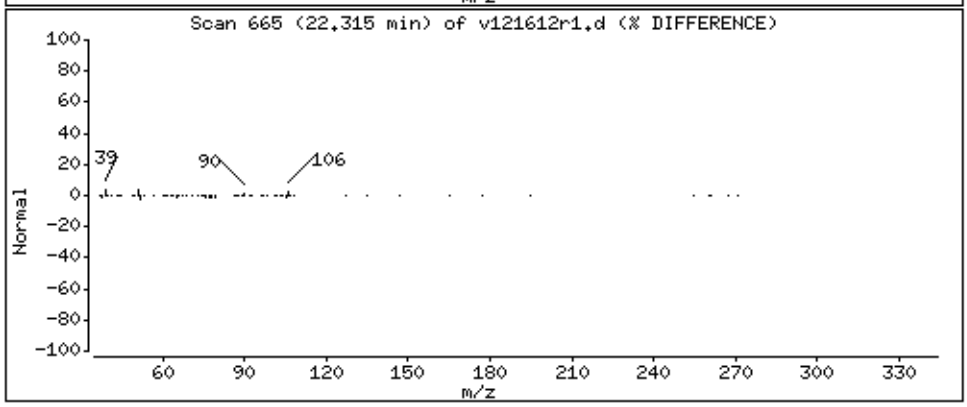
95 Ethyl Benzene

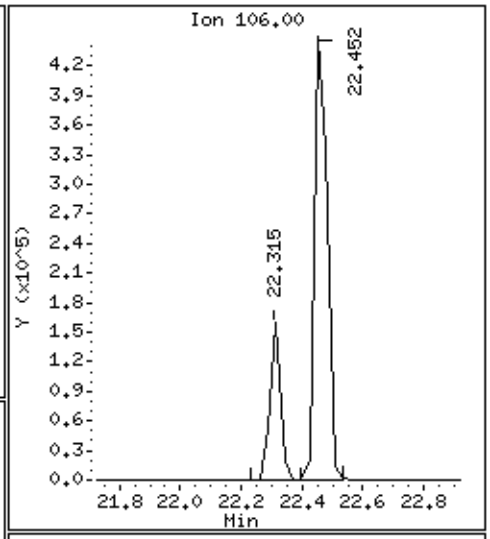
Concentration: 21.933 PPBV

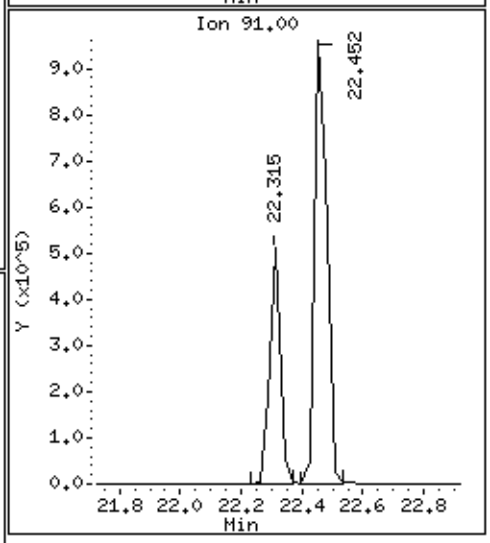


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

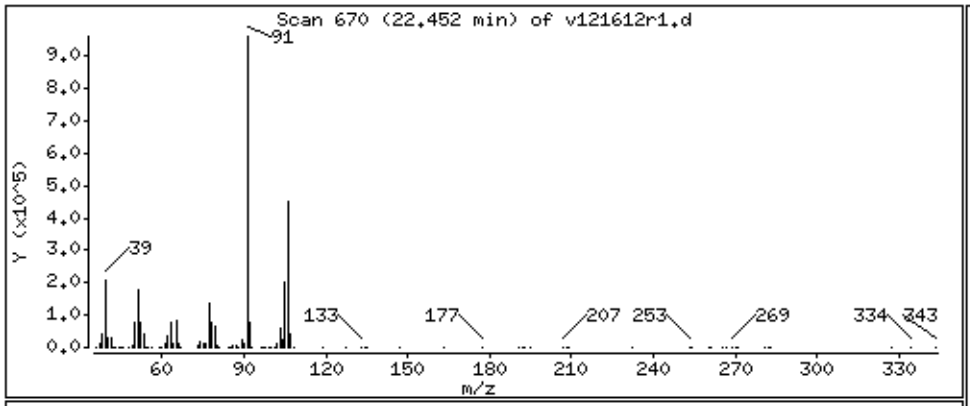
Operator: sn

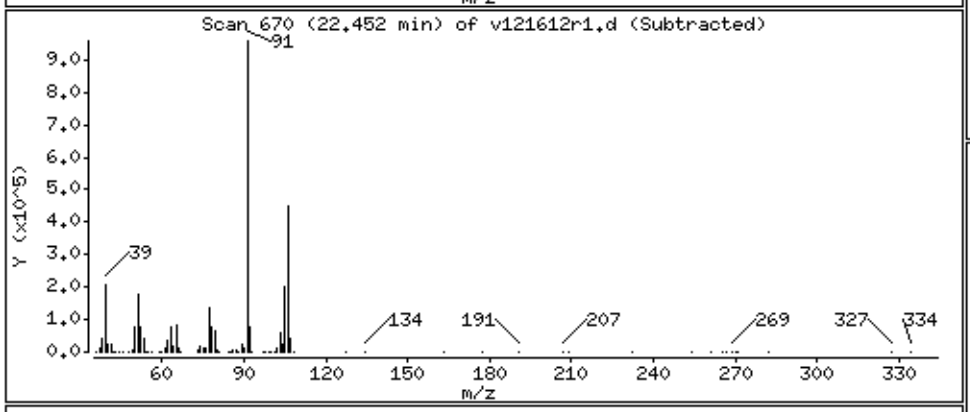
Column phase: RTx-624

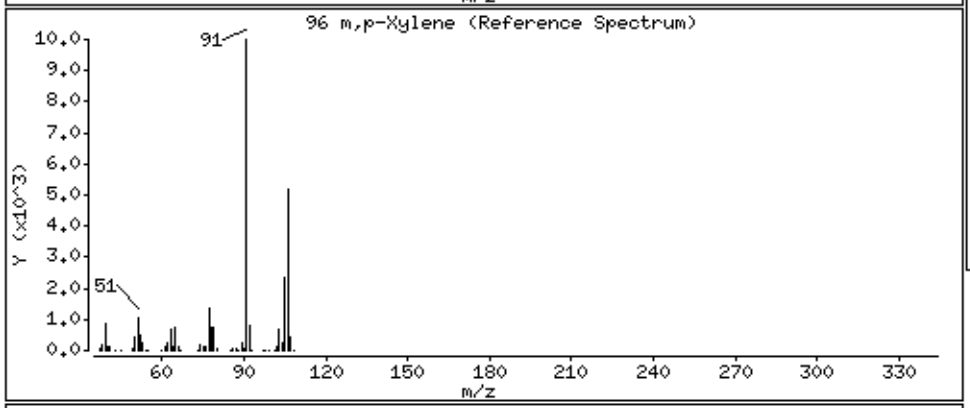
Column diameter: 0.32

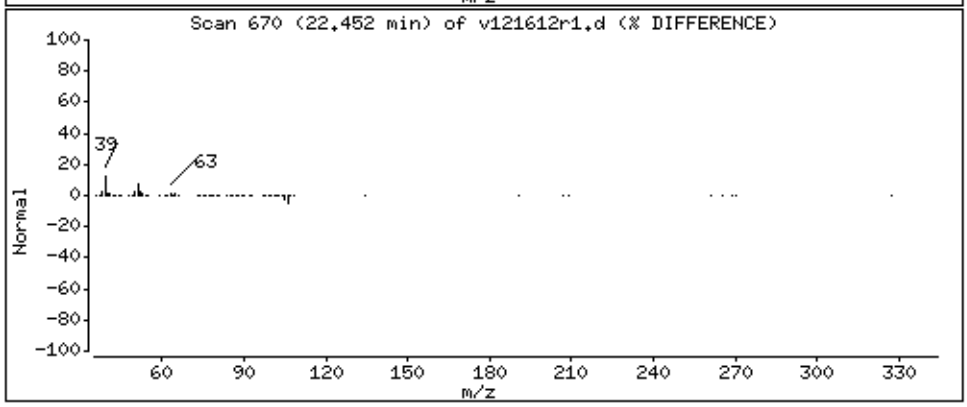
96 m,p-Xylene

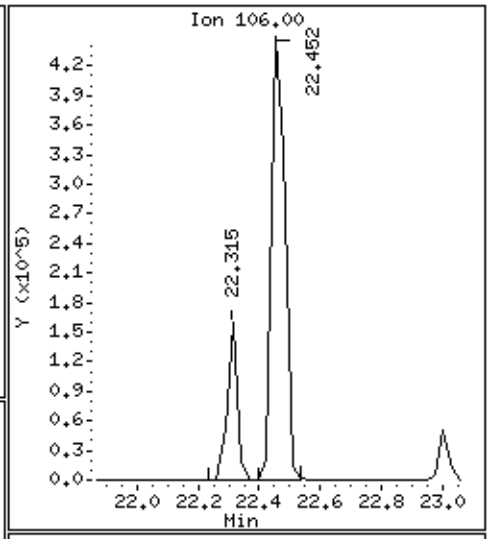
Concentration: 78.572 PPBV

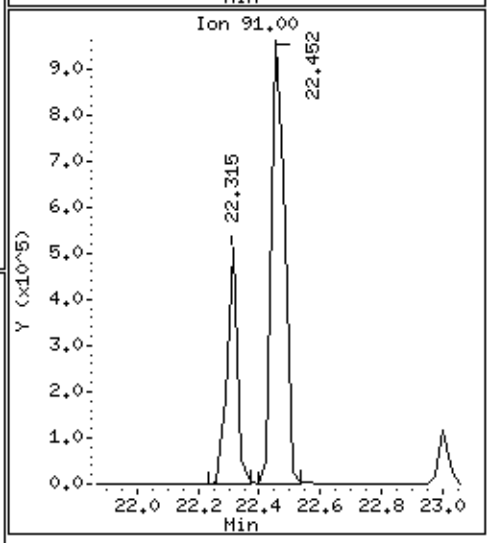


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

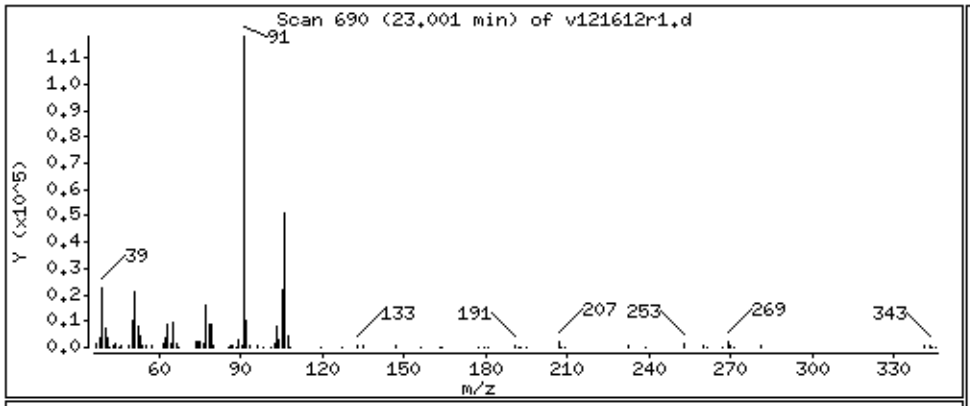
Operator: sn

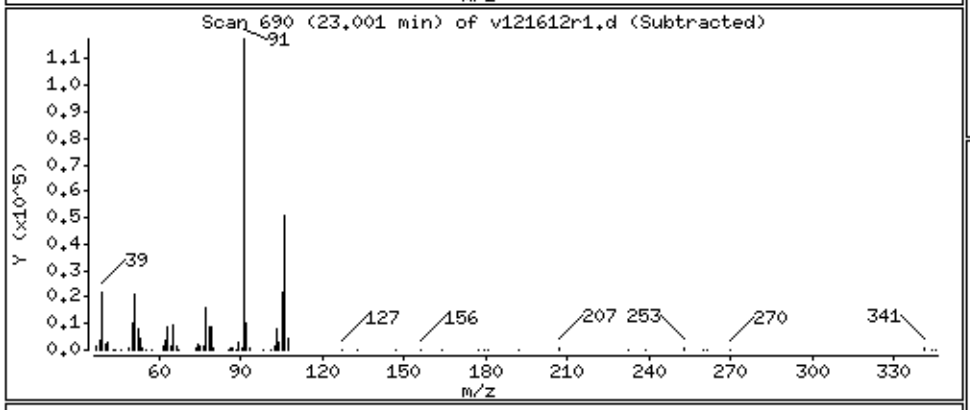
Column phase: RTx-624

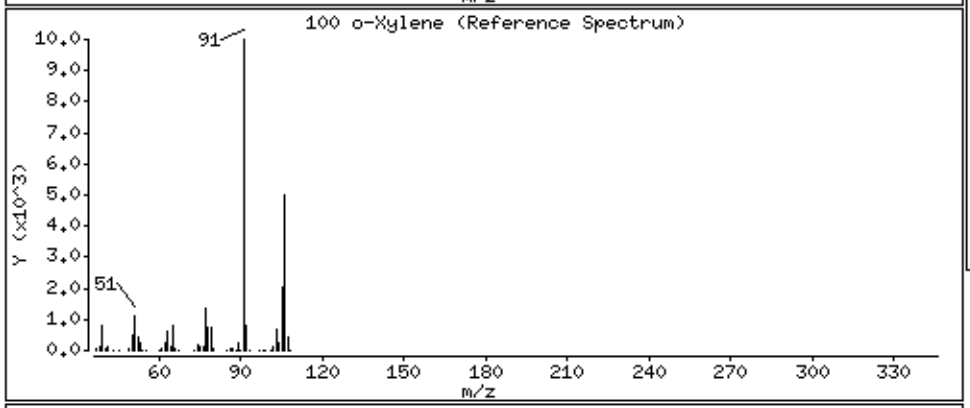
Column diameter: 0.32

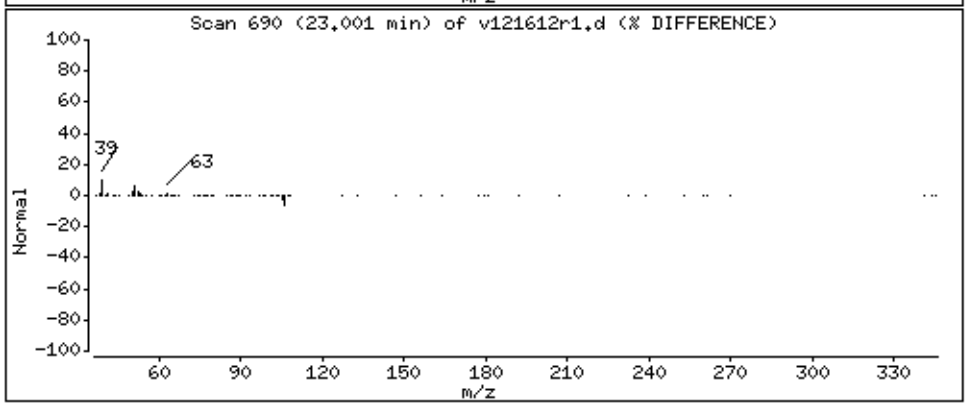
100 o-Xylene

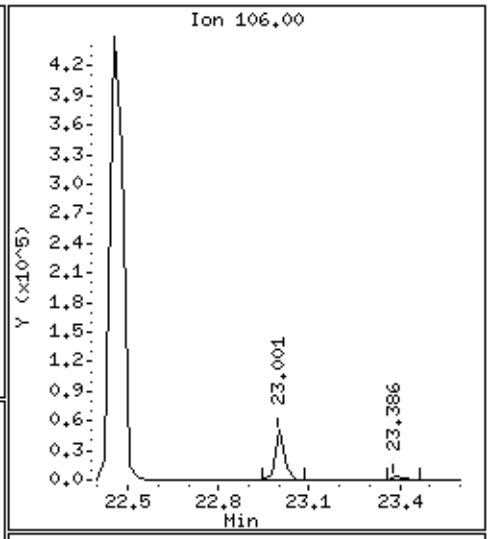
Concentration: 7.143 PPBV

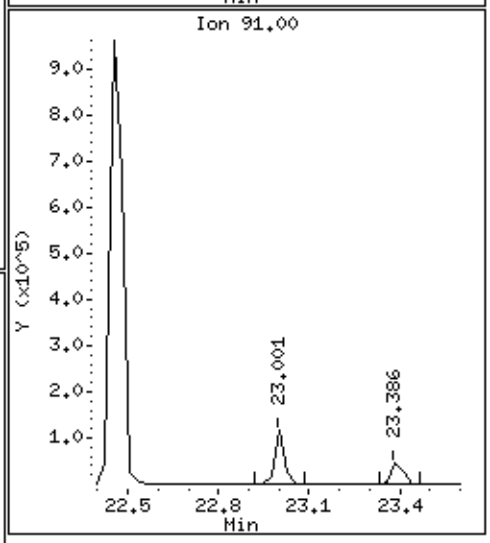


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

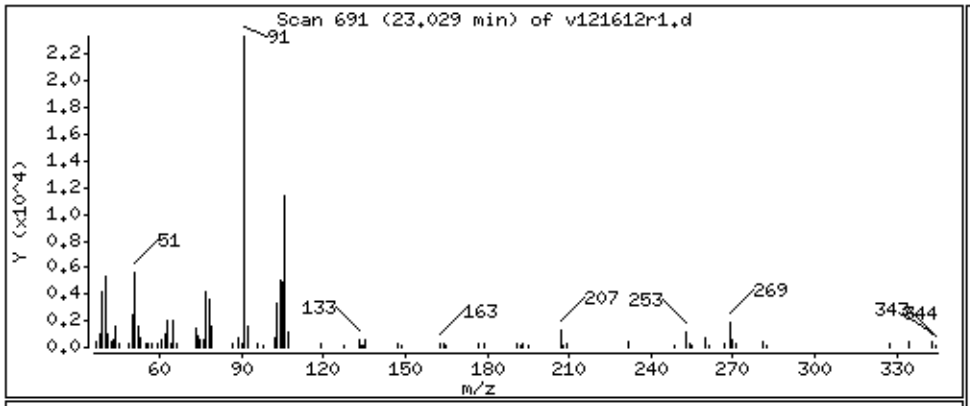
Operator: sn

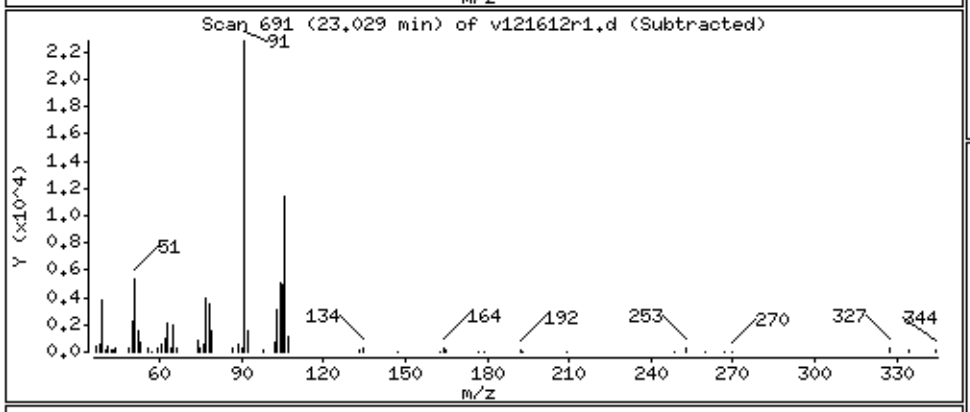
Column phase: RTx-624

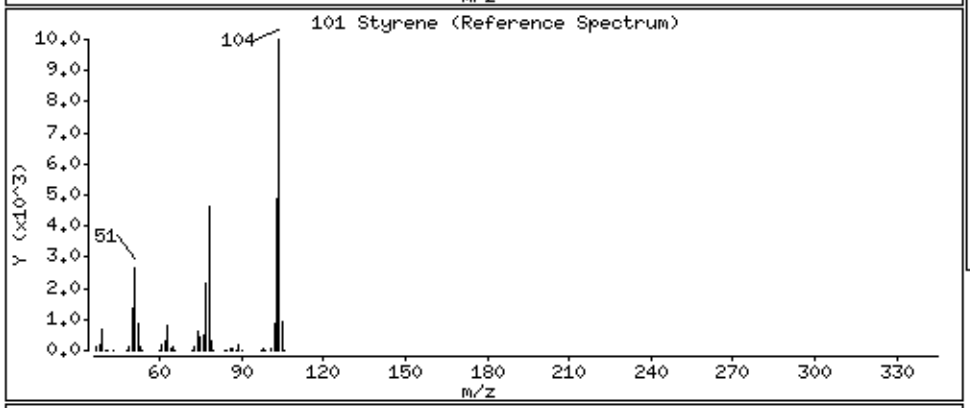
Column diameter: 0.32

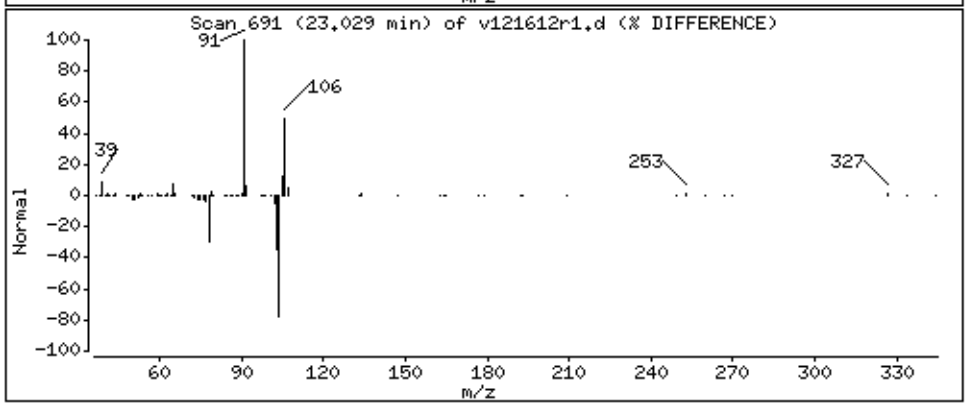
101 Styrene

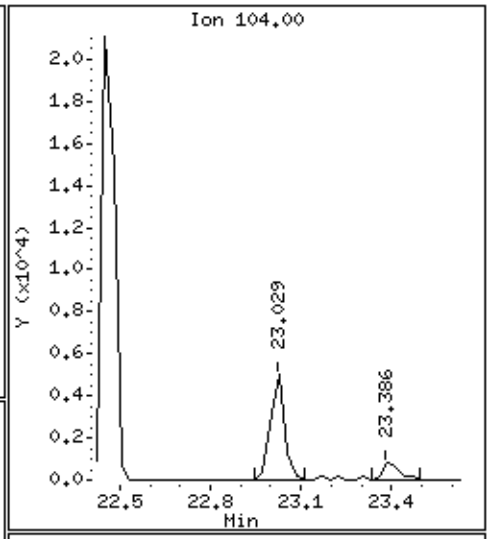
Concentration: 0.7081 PPBV

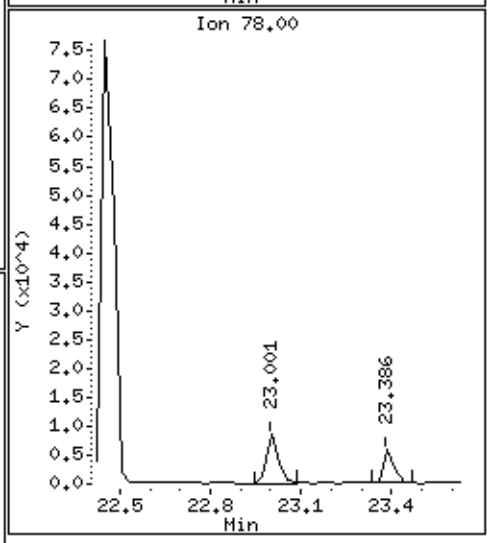


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d



Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

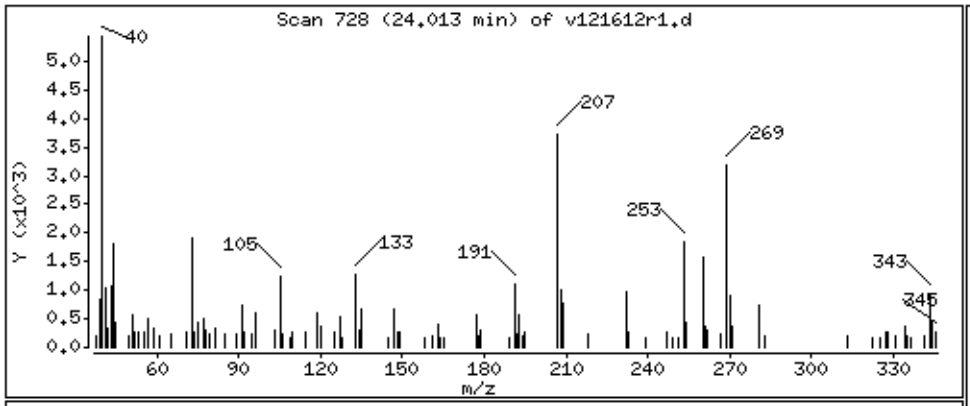
Operator: sn

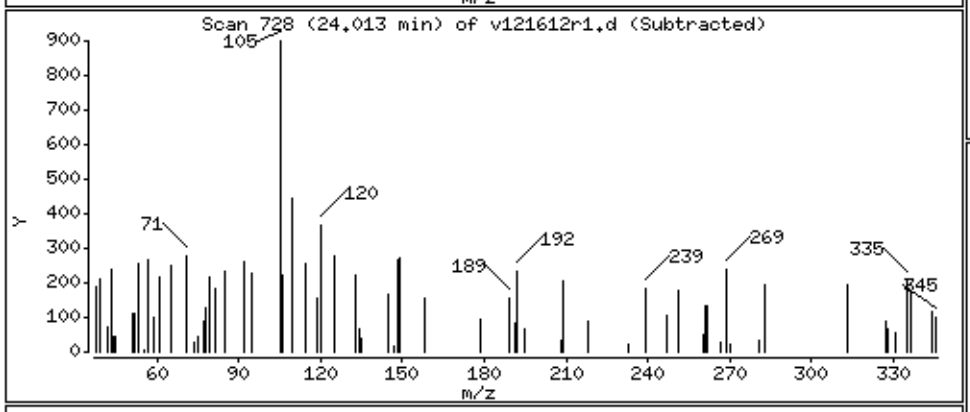
Column phase: RTx-624

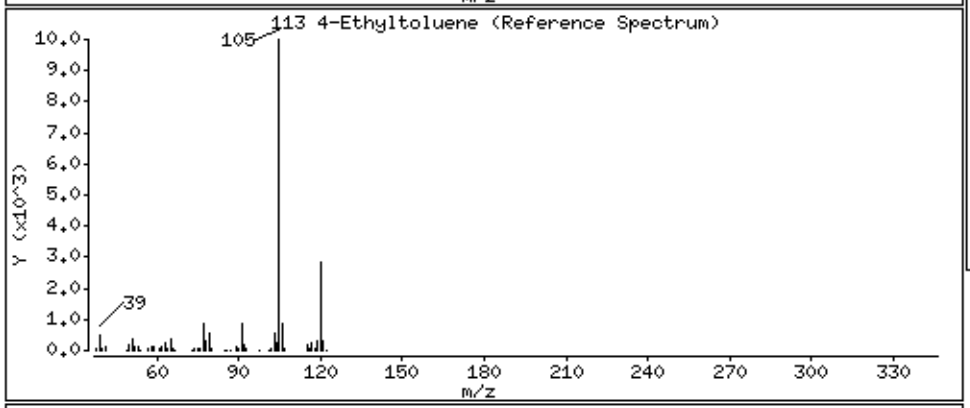
Column diameter: 0.32

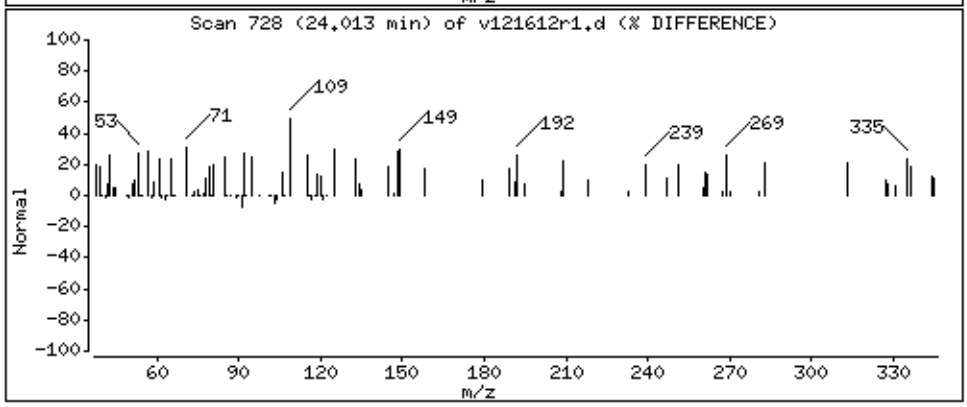
113 4-Ethyltoluene

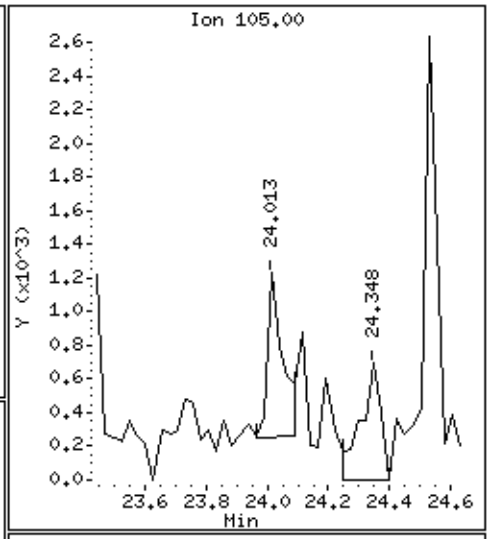
Concentration: 0.1192 PPBV

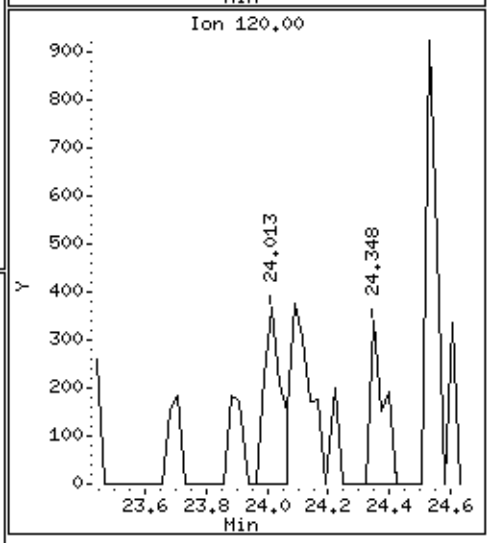


Data File: /chem/msdv.i/16Dec2014.b/v121612r1.d

Date : 16-DEC-2014 16:13

Client ID:

Instrument: msdv.i

Sample Info: 250ml #35255

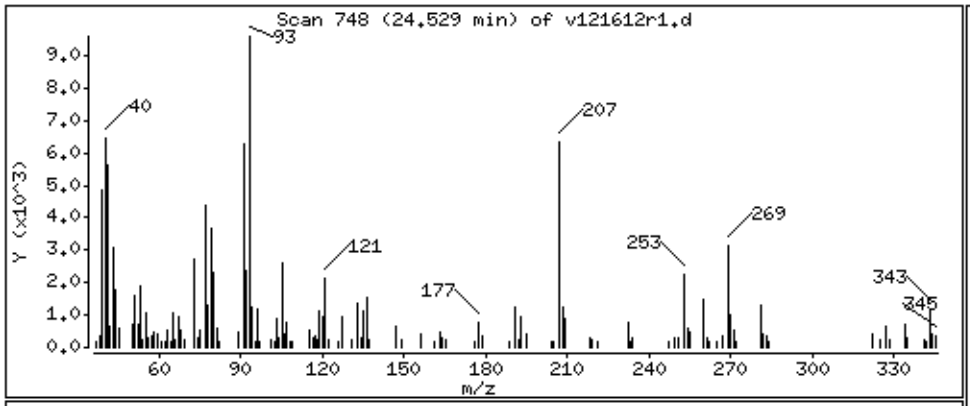
Operator: sn

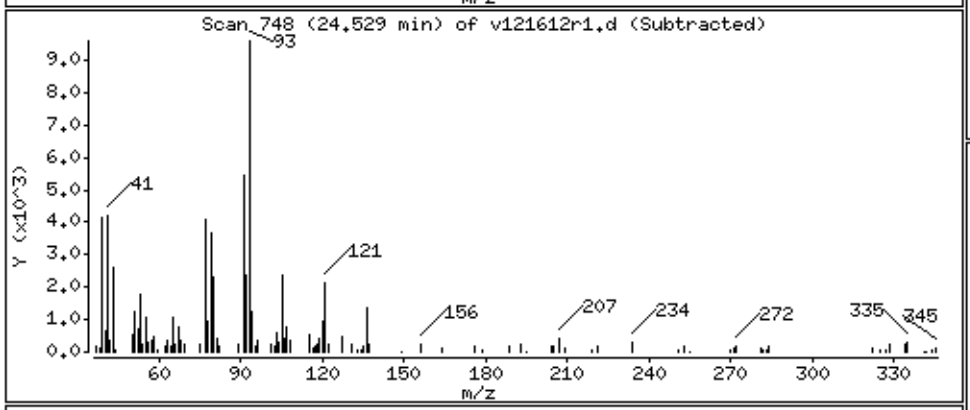
Column phase: RTx-624

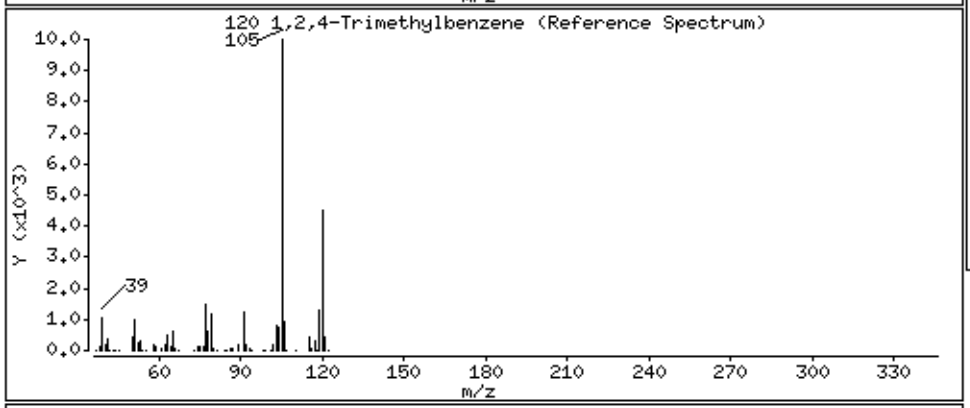
Column diameter: 0.32

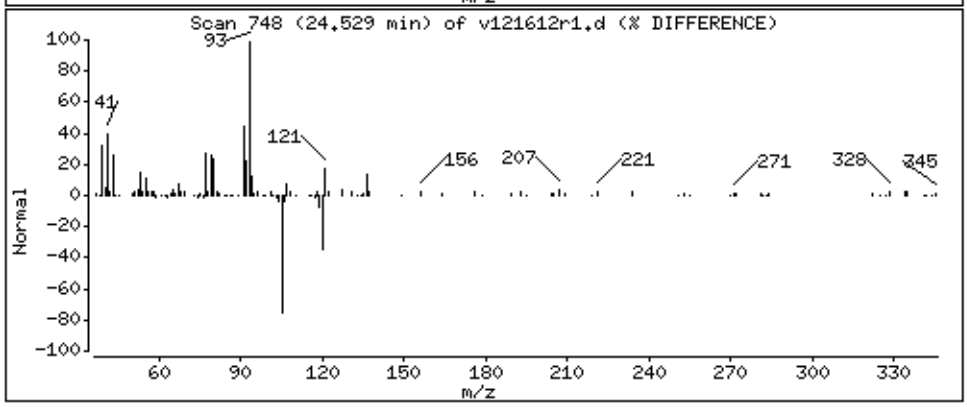
120 1,2,4-Trimethylbenzene

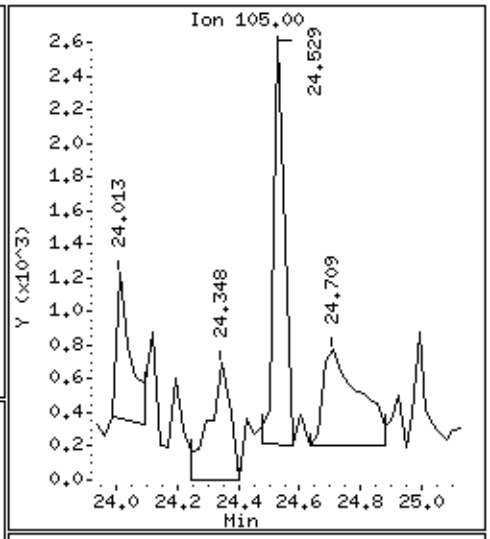
Concentration: 0.2981 PPBV

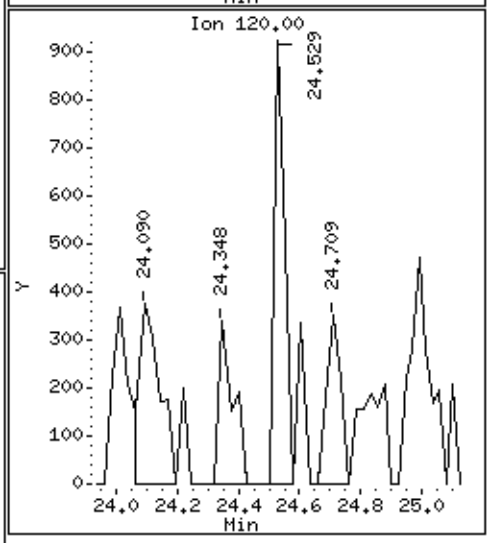


eurofins | Air Toxics

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: BSIA-3 (2014)**

**Lab ID#: 1412151AR1-03A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.5 | 0.43 J | 7.4 | 2.1 J |
| Chloromethane | 1.5 | 0.83 J | 3.1 | 1.7 J |
| Freon 11 | 0.30 | 0.19 J | 1.7 | 1.1 J |
| Ethanol | 1.5 | 530 J0E | 2.8 | 1000 J0E |
| Freon 113 | 0.30 | 0.060 J | 2.3 | 0.46 J |
| Acetone | 1.5 | 320 E | 3.5 | 750 E |
| 2-Propanol | 1.5 | 200 E | 3.7 | 500 E |
| Methylene Chloride | 0.60 | 88 | 2.1 | 310 |
| Methyl tert-butyl ether | 0.30 | 2.0 | 1.1 | 7.1 |
| Hexane | 0.30 | 0.19 J | 1.0 | 0.66 J |
| 2-Butanone (Methyl Ethyl Ketone) | 1.5 | 0.81 J | 4.4 | 2.4 J |
| Tetrahydrofuran | 1.5 | 4.6 | 4.4 | 14 |
| Chloroform | 0.30 | 0.21 J | 1.4 | 1.0 J |
| Cyclohexane | 0.30 | 0.12 J | 1.0 | 0.41 J |
| Benzene | 0.30 | 0.20 J | 0.95 | 0.65 J |
| Heptane | 0.30 | 3.6 | 1.2 | 15 |
| 4-Methyl-2-pentanone | 0.30 | 100 | 1.2 | 410 |
| Toluene | 0.30 | 190 E | 1.1 | 710 E |
| Ethyl Benzene | 0.30 | 28 | 1.3 | 120 |
| m,p-Xylene | 0.30 | 98 | 1.3 | 420 |
| o-Xylene | 0.30 | 9.2 | 1.3 | 40 |
| Styrene | 0.30 | 0.85 | 1.3 | 3.6 |
| 4-Ethyltoluene | 0.30 | 0.18 J | 1.5 | 0.90 J |
| 1,2,4-Trimethylbenzene | 0.30 | 0.41 | 1.5 | 2.0 |

eurofins | Air Toxics

**Client Sample ID: BSIA-3 (2014)**

**Lab ID#: 1412151AR1-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121613r1** | **Date of Collection:** | **12/9/14 9:20:00 AM** |
| **Dil. Factor:** | **2.98** | **Date of Analysis:** | **12/16/14 04:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.5 | 0.43 J | 7.4 | 2.1 J |
| Freon 114 | 0.30 | Not Detected | 2.1 | Not Detected |
| Chloromethane | 1.5 | 0.83 J | 3.1 | 1.7 J |
| Vinyl Chloride | 0.30 | Not Detected | 0.76 | Not Detected |
| 1,3-Butadiene | 0.30 | Not Detected | 0.66 | Not Detected |
| Bromomethane | 1.5 | Not Detected | 5.8 | Not Detected |
| Chloroethane | 1.5 | Not Detected | 3.9 | Not Detected |
| Freon 11 | 0.30 | 0.19 J | 1.7 | 1.1 J |
| Ethanol | 1.5 | 530 J0E | 2.8 | 1000 J0E |
| Freon 113 | 0.30 | 0.060 J | 2.3 | 0.46 J |
| 1,1-Dichloroethene | 0.30 | Not Detected | 1.2 | Not Detected |
| Acetone | 1.5 | 320 E | 3.5 | 750 E |
| 2-Propanol | 1.5 | 200 E | 3.7 | 500 E |
| Carbon Disulfide | 1.5 | Not Detected | 4.6 | Not Detected |
| 3-Chloropropene | 1.5 | Not Detected | 4.7 | Not Detected |
| Methylene Chloride | 0.60 | 88 | 2.1 | 310 |
| Methyl tert-butyl ether | 0.30 | 2.0 | 1.1 | 7.1 |
| trans-1,2-Dichloroethene | 0.30 | Not Detected | 1.2 | Not Detected |
| Hexane | 0.30 | 0.19 J | 1.0 | 0.66 J |
| 1,1-Dichloroethane | 0.30 | Not Detected | 1.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1.5 | 0.81 J | 4.4 | 2.4 J |
| cis-1,2-Dichloroethene | 0.30 | Not Detected | 1.2 | Not Detected |
| Tetrahydrofuran | 1.5 | 4.6 | 4.4 | 14 |
| Chloroform | 0.30 | 0.21 J | 1.4 | 1.0 J |
| 1,1,1-Trichloroethane | 0.30 | Not Detected | 1.6 | Not Detected |
| Cyclohexane | 0.30 | 0.12 J | 1.0 | 0.41 J |
| Carbon Tetrachloride | 0.30 | Not Detected | 1.9 | Not Detected |
| 2,2,4-Trimethylpentane | 1.5 | Not Detected | 7.0 | Not Detected |
| Benzene | 0.30 | 0.20 J | 0.95 | 0.65 J |
| 1,2-Dichloroethane | 0.30 | Not Detected | 1.2 | Not Detected |
| Heptane | 0.30 | 3.6 | 1.2 | 15 |
| Trichloroethene | 0.30 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloropropane | 0.30 | Not Detected | 1.4 | Not Detected |
| 1,4-Dioxane | 0.30 | Not Detected | 1.1 | Not Detected |
| Bromodichloromethane | 0.30 | Not Detected | 2.0 | Not Detected |
| cis-1,3-Dichloropropene | 0.30 | Not Detected | 1.4 | Not Detected |
| 4-Methyl-2-pentanone | 0.30 | 100 | 1.2 | 410 |
| Toluene | 0.30 | 190 E | 1.1 | 710 E |
| trans-1,3-Dichloropropene | 0.30 | Not Detected | 1.4 | Not Detected |
| 1,1,2-Trichloroethane | 0.30 | Not Detected | 1.6 | Not Detected |
| Tetrachloroethene | 0.30 | Not Detected | 2.0 | Not Detected |
| 2-Hexanone | 1.5 | Not Detected | 6.1 | Not Detected |

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**Client Sample ID: BSIA-3 (2014)**

**Lab ID#: 1412151AR1-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121613r1** | **Date of Collection:** | **12/9/14 9:20:00 AM** |
| **Dil. Factor:** | **2.98** | **Date of Analysis:** | **12/16/14 04:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.30 | Not Detected | 2.5 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.30 | Not Detected | 2.3 | Not Detected |
| Chlorobenzene | 0.30 | Not Detected | 1.4 | Not Detected |
| Ethyl Benzene | 0.30 | 28 | 1.3 | 120 |
| m,p-Xylene | 0.30 | 98 | 1.3 | 420 |
| o-Xylene | 0.30 | 9.2 | 1.3 | 40 |
| Styrene | 0.30 | 0.85 | 1.3 | 3.6 |
| Bromoform | 0.30 | Not Detected | 3.1 | Not Detected |
| Cumene | 0.30 | Not Detected | 1.5 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.30 | Not Detected | 2.0 | Not Detected |
| Propylbenzene | 0.30 | Not Detected | 1.5 | Not Detected |
| 4-Ethyltoluene | 0.30 | 0.18 J | 1.5 | 0.90 J |
| 1,3,5-Trimethylbenzene | 0.30 | Not Detected | 1.5 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.30 | 0.41 | 1.5 | 2.0 |
| 1,3-Dichlorobenzene | 0.30 | Not Detected UJ | 1.8 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.30 | Not Detected UJ | 1.8 | Not Detected UJ |
| alpha-Chlorotoluene | 1.5 | Not Detected UJ | 7.7 | Not Detected UJ |
| 1,2-Dichlorobenzene | 0.30 | Not Detected UJ | 1.8 | Not Detected UJ |
| 1,2,4-Trichlorobenzene | 1.5 | Not Detected | 11 | Not Detected |
| Hexachlorobutadiene | 1.5 | Not Detected UJ | 16 | Not Detected UJ |
| Naphthalene | 1.5 | Not Detected | 7.8 | Not Detected |

J = Estimated value.
E = Exceeds instrument calibration range.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: 6 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 110 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121613r1.d
Lab Smp Id: 1412151AR1-03A
Inj Date : 16-DEC-2014 16:52
Operator : sn Inst ID: msdv.i
Smp Info : 125ml #34450
Misc Info : 3.0"Hg -> 5.0psi
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 2.98000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.933 (1.000) | 130 | 103588 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.933 (1.000) | 128 | 77783 | | | 47.55- 107.55 | 75.09 |
| 15.934 | 15.933 (1.000) | 49 | 264761 | | | 213.64- 273.64 | 255.59 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 417195 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 75583 | | | 0.00- 46.17 | 18.12 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 331072 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 208494 | | | 28.56- 88.56 | 62.98 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 187744 | 4.93842 | 4.938 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 90744 | | | 28.37- 88.37 | 48.33 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.856 | 19.879 (1.147) | 98 | 439857 | 5.48375 | 5.484 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 56891 | | | 0.00- 41.90 | 12.93 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.856  19.879 (1.147)   100    277125                    34.60-  94.60    63.00
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    145000 5.09275    5.093  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    205010                  113.85- 173.85   141.39
 23.704  23.704 (1.067)   176    141093                    68.89- 128.89    97.31
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.202 (0.329)    85     13965 0.14390   0.4288  80.00- 120.00   100.00(a)
  5.202   5.202 (0.326)    87      2227                     1.57-  61.57    15.95
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.090   7.052 (0.445)    50     16276 0.27829   0.8293  80.00- 120.00   100.00
  7.090   7.052 (0.445)    52      4832                     1.81-  61.81    29.69
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.184  11.183 (0.702)   101      6506 0.06513   0.1941  80.00- 120.00   100.00(a)
 11.184  11.183 (0.702)   103      4609                    34.11-  94.11    70.84
-------------------------------------------------------------------------------
   24 Ethanol                                       CAS #: 64-17-5
 12.102  12.101 (0.760)    45   3767309 177.899   530.14  80.00- 120.00   100.00(A)
 12.102  12.101 (0.760)    46   1454180                     8.51-  68.51    38.60
 12.102  12.101 (0.760)    43    777611                     0.00-  54.10    20.64
-------------------------------------------------------------------------------
   28 Freon 113                                     CAS #: 76-13-1
 12.596  12.568 (0.791)   151      1221 0.02030  0.06051  80.00- 120.00   100.00(a)
 12.569  12.568 (0.789)   153      1033                    33.65-  93.65    84.60
 12.569  12.568 (0.789)   101      2086                    96.37- 156.37   170.84
-------------------------------------------------------------------------------
   31 Acetone                                       CAS #: 67-64-1
 12.816  12.816 (0.804)    58   2600439 106.250   316.63  80.00- 120.00   100.00(A)
 12.816  12.816 (0.804)    43  11576030                  413.15- 473.15   445.16
-------------------------------------------------------------------------------
   34 2-Propanol                                    CAS #: 67-63-0
 13.173  13.173 (0.827)    45   7758114 68.4545   203.99  80.00- 120.00   100.00(A)
 13.173  13.173 (0.827)    43   1470637                     0.00-  50.74    18.96
 13.200  13.173 (0.828)    59    216923                     0.00-  32.83     2.80
-------------------------------------------------------------------------------
   37 Methylene Chloride                            CAS #: 75-09-2
 13.640  13.640 (0.856)    84    934059 29.6600   88.387  80.00- 120.00   100.00
 13.640  13.640 (0.856)    49   2224403                  212.37- 272.37   238.14
 13.640  13.640 (0.856)    51    645664                    43.31- 103.31    69.12
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 14.024  13.996 (0.880)    73     74603 0.66028    1.968  80.00- 120.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 39 MTBE (continued) | | | | | | | |
| 14.024 | 13.996 (0.880) | 57 | 29938 | | | 2.99- 62.99 | 40.13 |
| 13.997 | 13.996 (0.878) | 41 | 39621 | | | 12.12- 72.12 | 53.11 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 5681 | 0.06284 | 0.1872 | 80.00- 120.00 | 100.00(a) |
| 14.408 | 14.381 (0.904) | 43 | 11135 | | | 57.65- 117.65 | 196.00 |
| 14.408 | 14.381 (0.904) | 86 | 851 | | | 0.00- 40.67 | 14.98 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.571 (0.979) | 72 | 4964 | 0.27250 | 0.8120 | 80.00- 120.00 | 100.00(a) |
| 15.592 | 15.571 (0.979) | 43 | 47118 | | | 794.80- 854.80 | 949.19 |
| 15.592 | 15.571 (0.979) | 57 | 2351 | | | 18.01- 78.01 | 47.36 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.934 | 15.933 (1.000) | 42 | 146371 | 1.55926 | 4.646 | 80.00- 120.00 | 100.00 |
| 15.934 | 15.933 (1.000) | 71 | 27992 | | | 0.00- 49.03 | 19.12 |
| 15.934 | 15.933 (1.000) | 72 | 31765 | | | 0.00- 51.35 | 21.70 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 6083 | 0.06968 | 0.2076 | 80.00- 120.00 | 100.00(a) |
| 15.995 | 15.995 (1.004) | 85 | 2972 | | | 33.33- 93.33 | 48.86 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.242 | 16.242 (1.019) | 84 | 2182 | 0.03974 | 0.1184 | 80.00- 120.00 | 100.00(a) |
| 16.242 | 16.242 (1.019) | 56 | 7331 | | | 157.43- 217.43 | 335.98 |
| 16.242 | 16.242 (1.019) | 41 | 4336 | | | 105.99- 165.99 | 198.72 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 8412 | 0.06833 | 0.2036 | 80.00- 120.00 | 100.00(a) |
| 16.756 | 16.756 (0.968) | 77 | 2311 | | | 0.00- 53.73 | 27.47 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.948 (0.981) | 57 | 64969 | 1.22440 | 3.649 | 80.00- 120.00 | 100.00 |
| 16.975 | 16.948 (0.981) | 100 | 14912 | | | 0.00- 51.27 | 22.95 |
| 16.975 | 16.948 (0.981) | 43 | 182132 | | | 235.24- 295.24 | 280.34 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.588 | 19.587 (1.132) | 43 | 5823880 | 33.5132 | 99.869 | 80.00- 120.00 | 100.00 |
| 19.588 | 19.587 (1.132) | 58 | 1543576 | | | 0.00- 57.24 | 26.50 |
| 19.588 | 19.587 (1.132) | 85 | 492010 | | | 0.00- 38.20 | 8.45 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 8649265 | 63.6450 | 189.66 | 80.00- 120.00 | 100.00(A) |
| 19.991 | 19.991 (1.155) | 92 | 4992123 | | | 28.60- 88.60 | 57.72 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 95 Ethyl Benzene | | | | | | | CAS #: 100-41-4 | |
| 22.315 | 22.315 | (1.005) | 106 | 451507 | 9.25254 | 27.572 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 | (1.005) | 91 | 1464882 | | | 292.36- 352.36 | 324.44 |
| 96 m,p-Xylene | | | | | | | CAS #: 108-38-3 | |
| 22.452 | 22.452 | (1.011) | 106 | 1579858 | 32.8330 | 97.842 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 | (1.011) | 91 | 3258451 | | | 164.15- 224.15 | 206.25 |
| 100 o-Xylene | | | | | | | CAS #: 95-47-6 | |
| 23.002 | 23.001 | (1.036) | 106 | 137714 | 3.07569 | 9.166 | 80.00- 120.00 | 100.00 |
| 23.002 | 23.001 | (1.036) | 91 | 298524 | | | 186.63- 246.63 | 216.77 |
| 101 Styrene | | | | | | | CAS #: 100-42-5 | |
| 23.029 | 23.029 | (1.037) | 104 | 18731 | 0.28595 | 0.8521 | 80.00- 120.00 | 100.00 |
| 23.002 | 23.029 | (1.036) | 78 | 27174 | | | 28.70- 88.70 | 145.08 |
| 113 4-Ethyltoluene | | | | | | | CAS #: 622-96-8 | |
| 24.013 | 24.039 | (1.081) | 105 | 5200 | 0.06112 | 0.1821 | 80.00- 120.00 | 100.00(a) |
| 24.039 | 24.039 | (1.083) | 120 | 1475 | | | 0.18- 60.18 | 28.37 |
| 120 1,2,4-Trimethylbenzene | | | | | | | CAS #: 95-63-6 | |
| 24.529 | 24.529 | (1.105) | 105 | 7900 | 0.13730 | 0.4092 | 80.00- 120.00 | 100.00 |
| 24.529 | 24.529 | (1.105) | 120 | 2688 | | | 19.27- 79.27 | 34.03 |

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121613r1.d
Lab Smp Id: 1412151AR1-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 3.0"Hg -> 5.0psi

Calibration Date: 16-DEC-2014
Calibration Time: 08:42

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 103588 | -5.59 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 417195 | -6.35 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 331072 | -8.31 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1412151AR1-03A
Level: LOW
Operator: sn
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 3.0"Hg -> 5.0psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 4.938 | 98.77 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.484 | 109.67 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 5.093 | 101.85 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

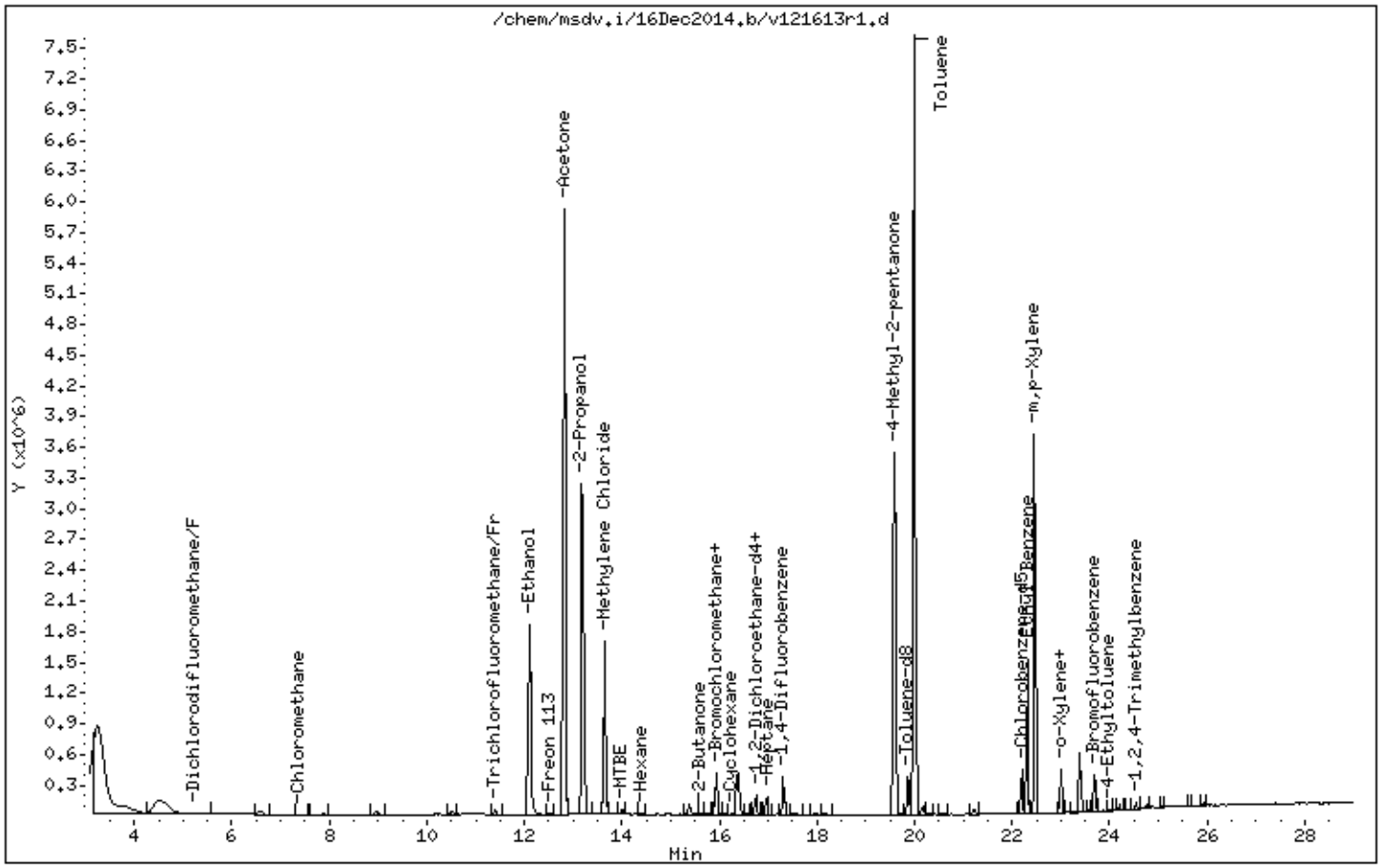
Instrument: msdv.i

Sample Info: 125ml #34450

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

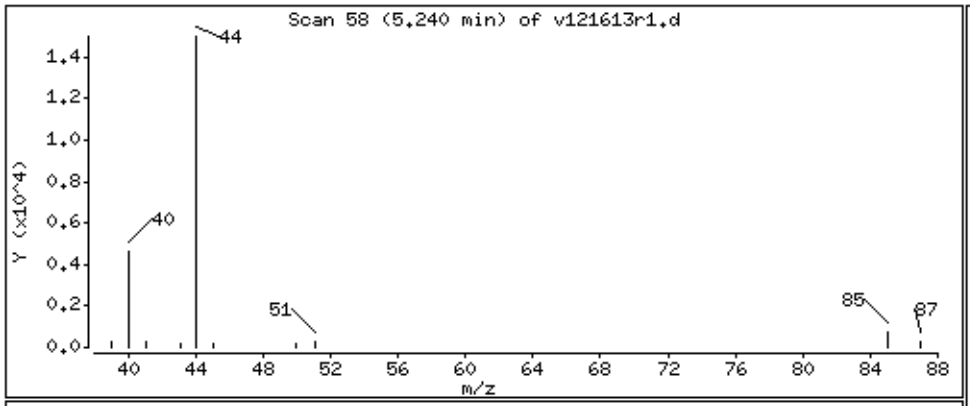
Operator: sn

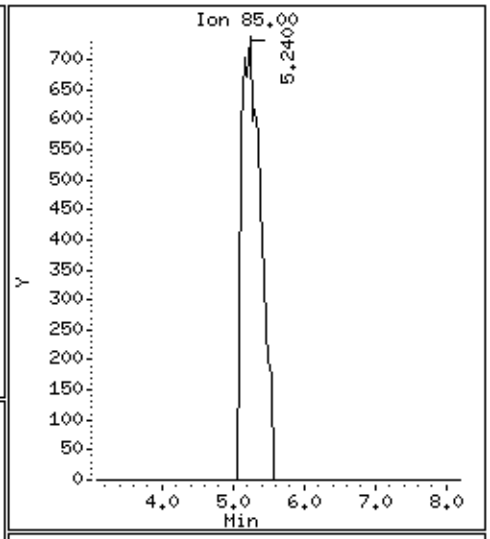
Column phase: RTx-624

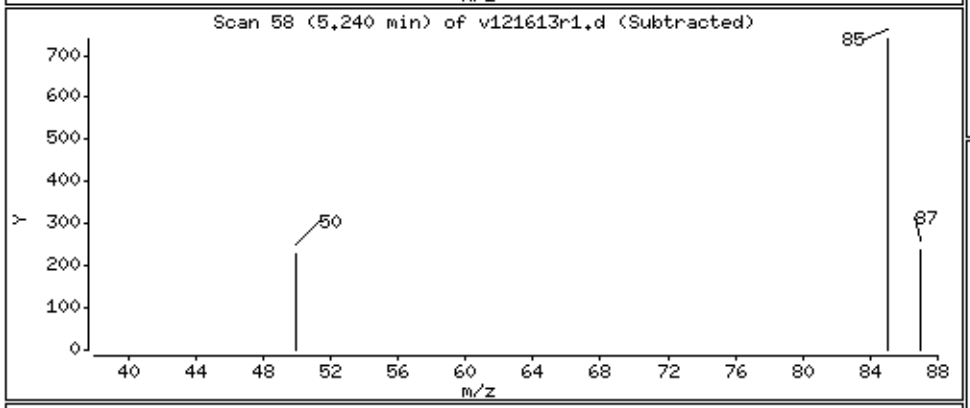
Column diameter: 0.32

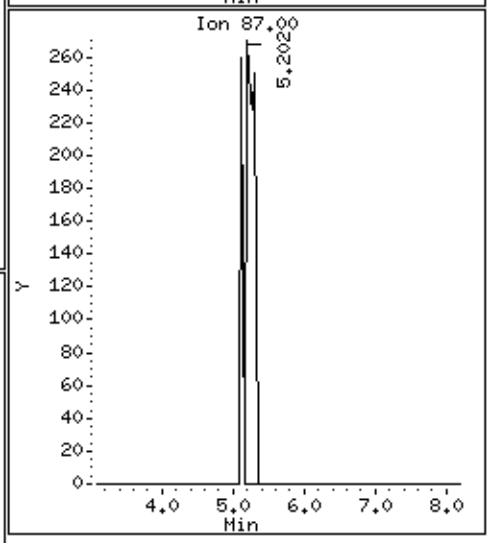
4 Dichlorodifluoromethane/Fr12

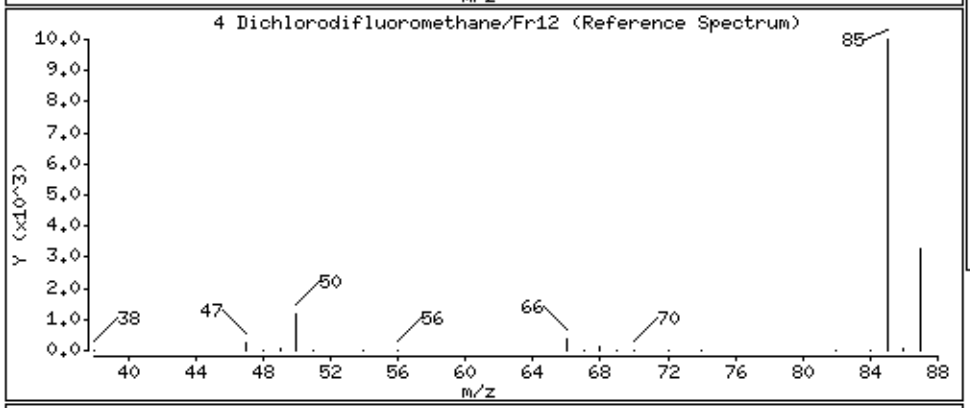
Concentration: 0.4288 PPBV

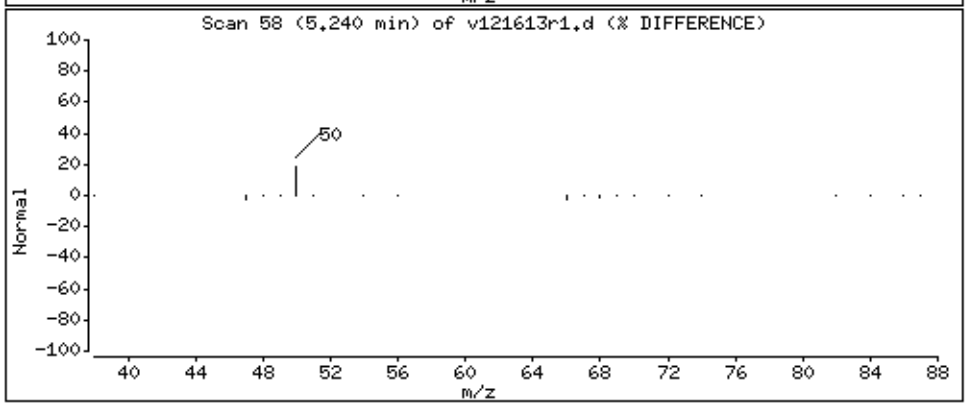


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

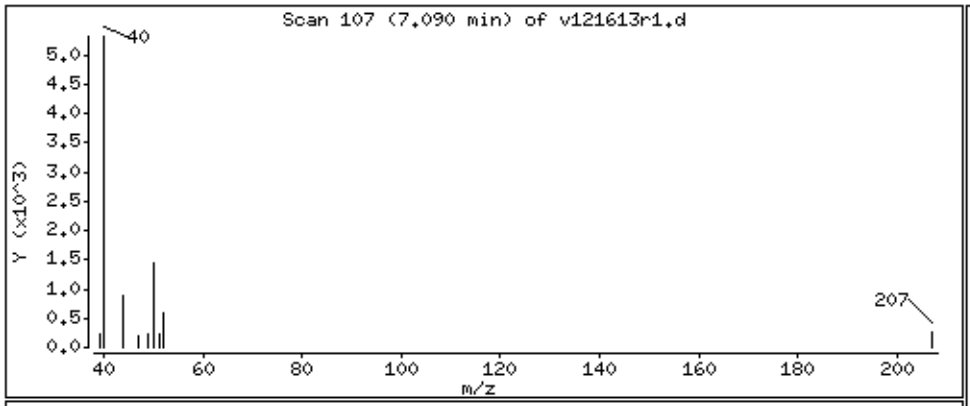
Operator: sn

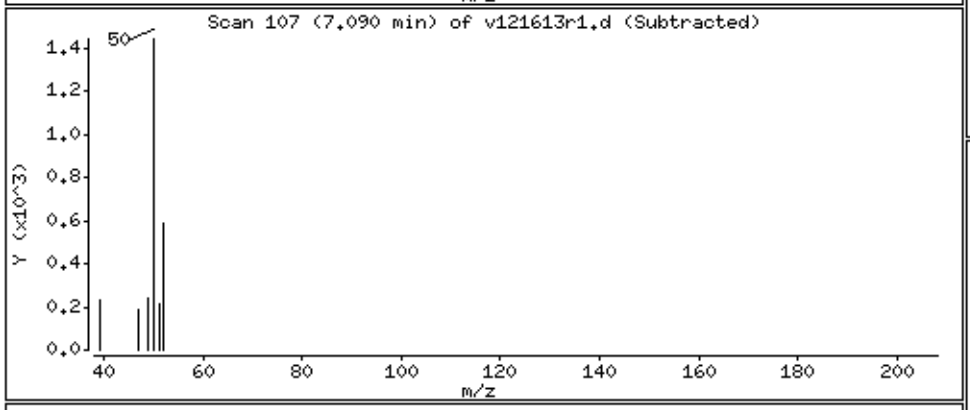
Column phase: RTx-624

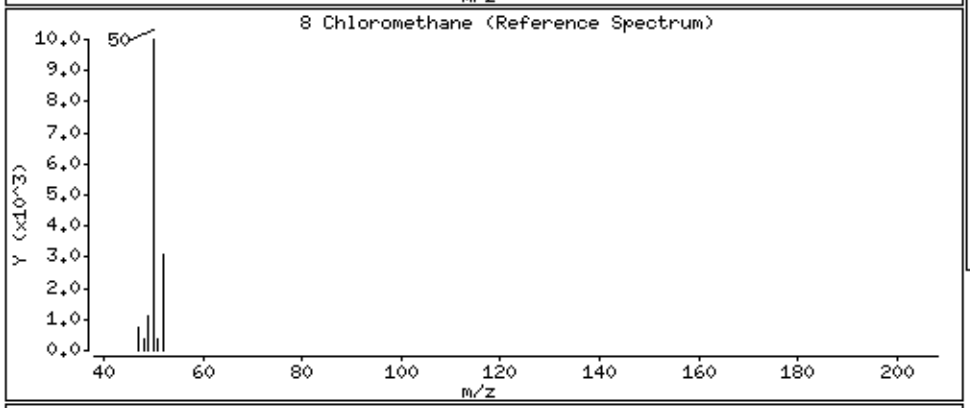
Column diameter: 0.32

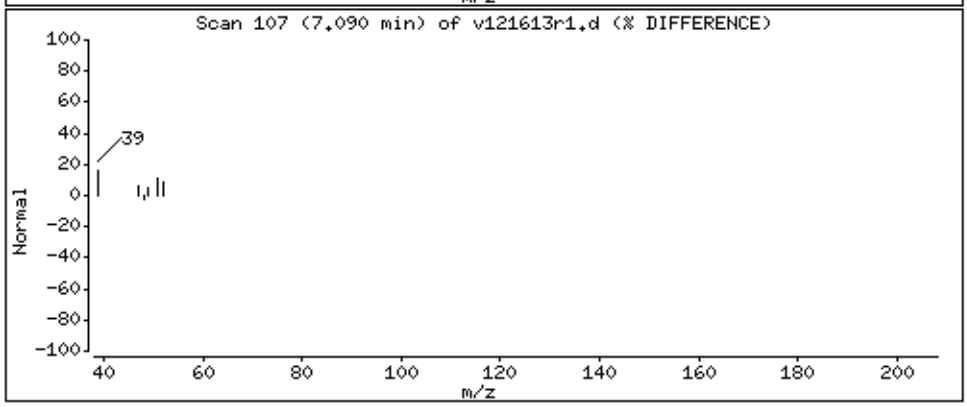
8 Chloromethane

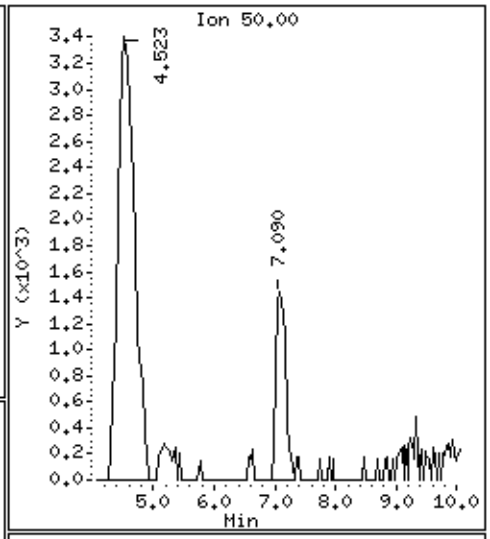
Concentration: 0.8293 PPBV

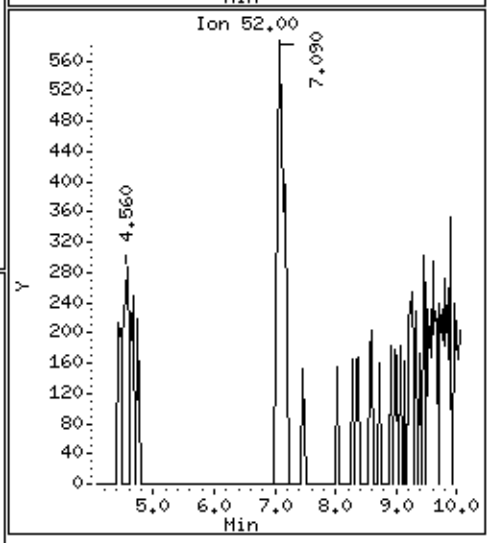


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

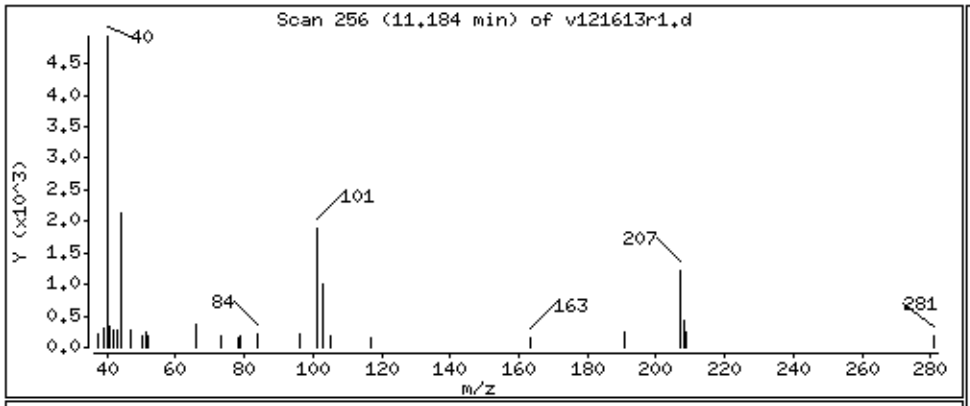
Operator: sn

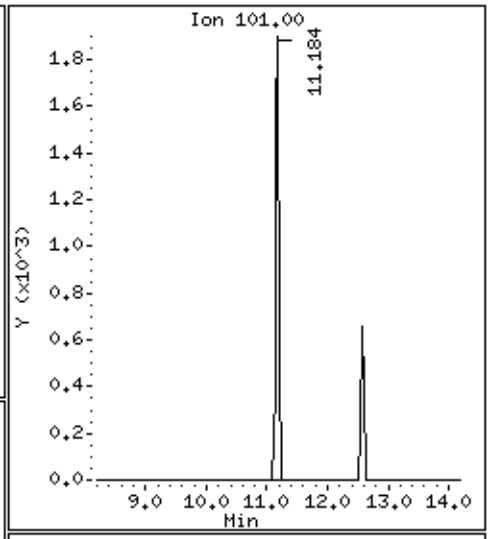
Column phase: RTx-624

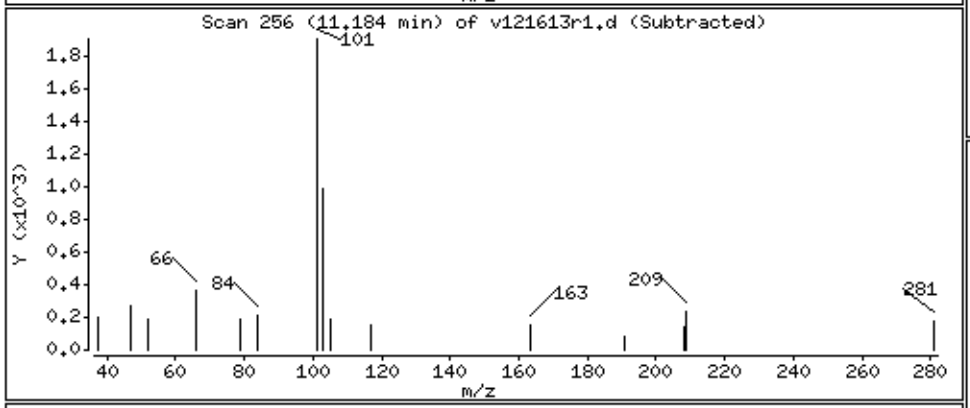
Column diameter: 0.32

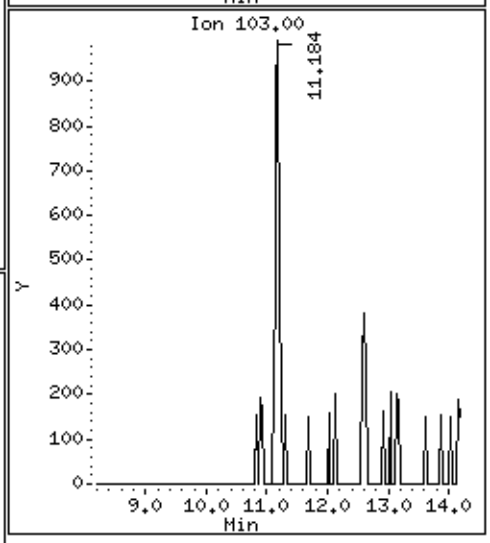
20 Trichlorofluoromethane/Fr11

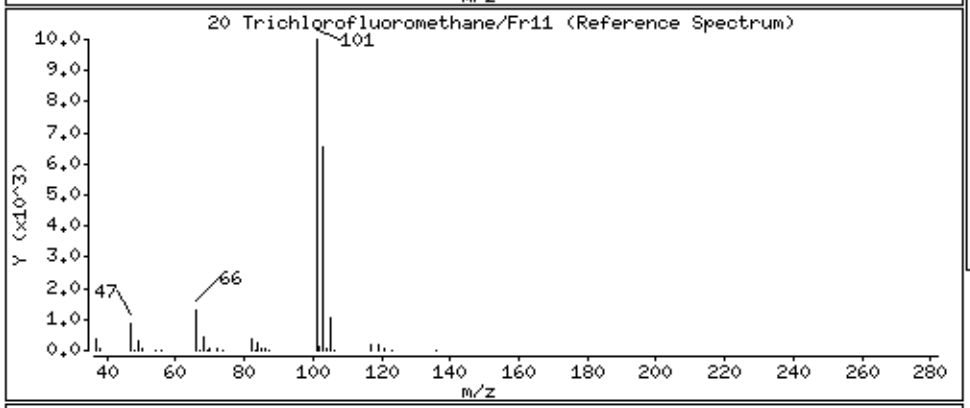
Concentration: 0.1941 PPBV

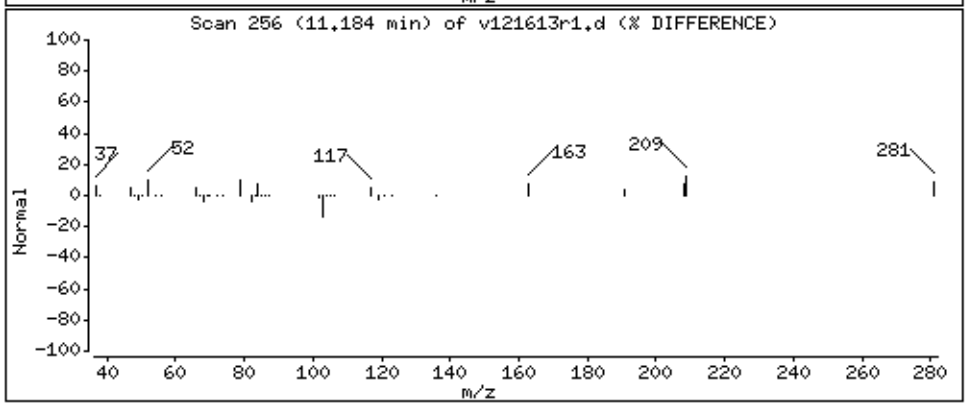


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

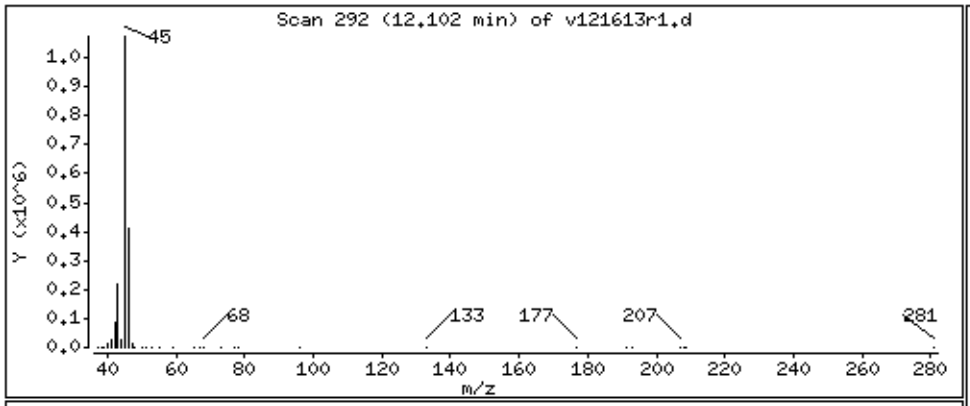
Operator: sn

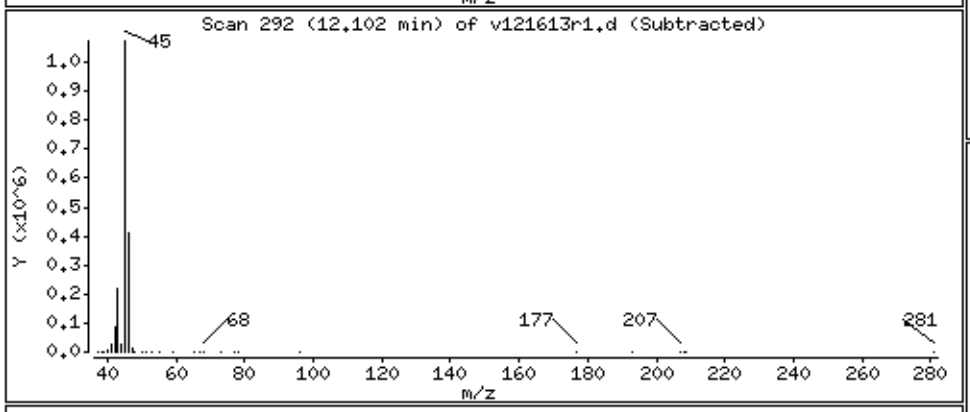
Column phase: RTx-624

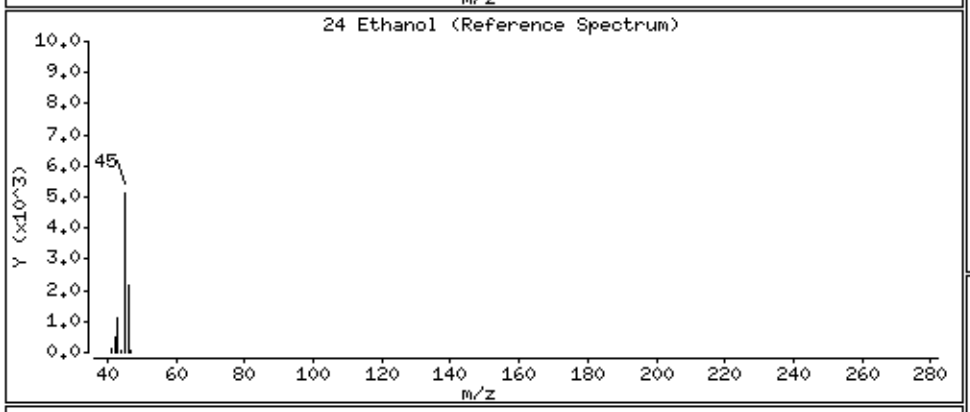
Column diameter: 0.32

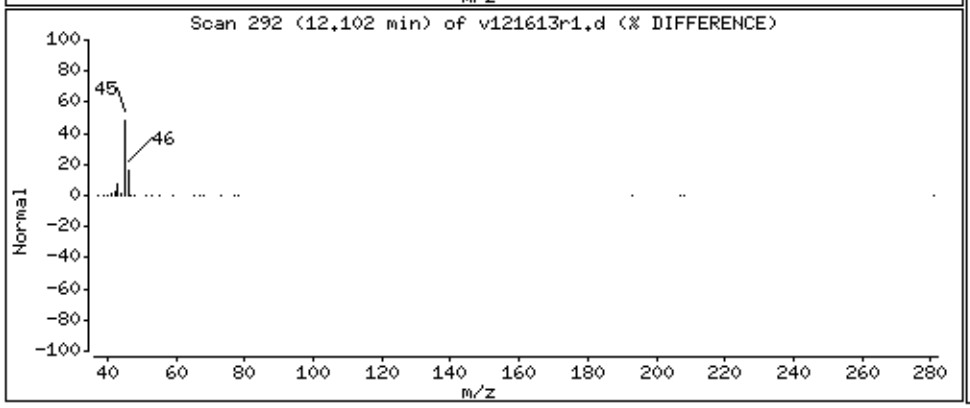
24 Ethanol

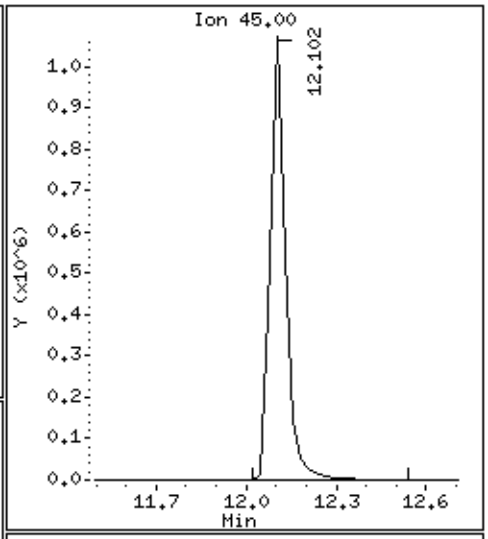
Concentration: 530.14 PPBV

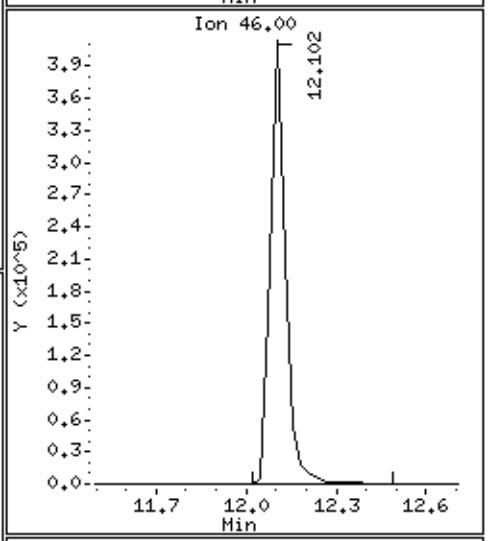


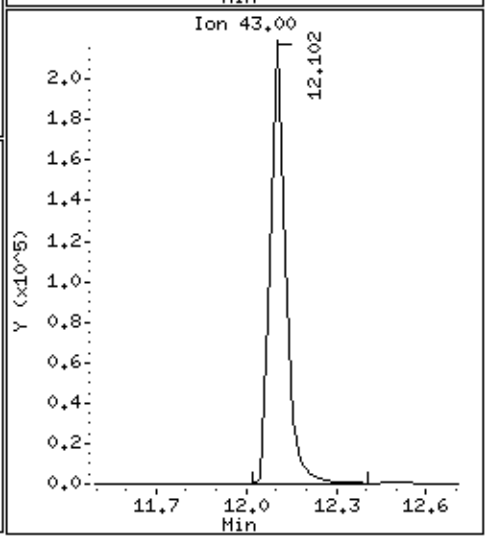



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

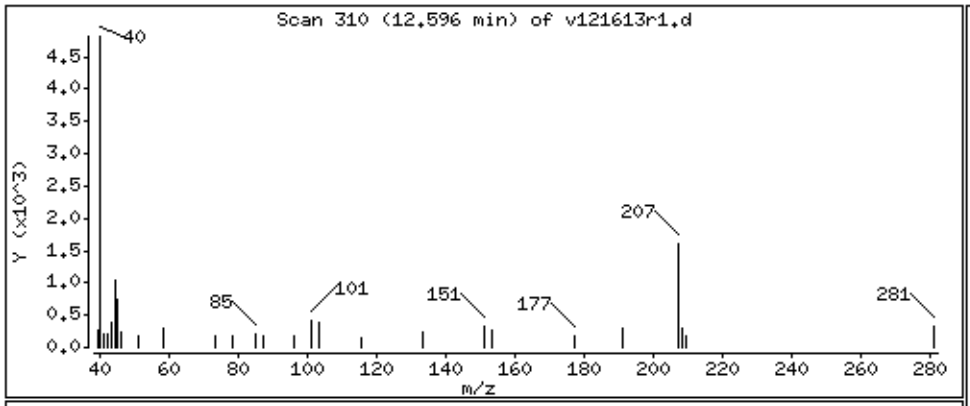
Operator: sn

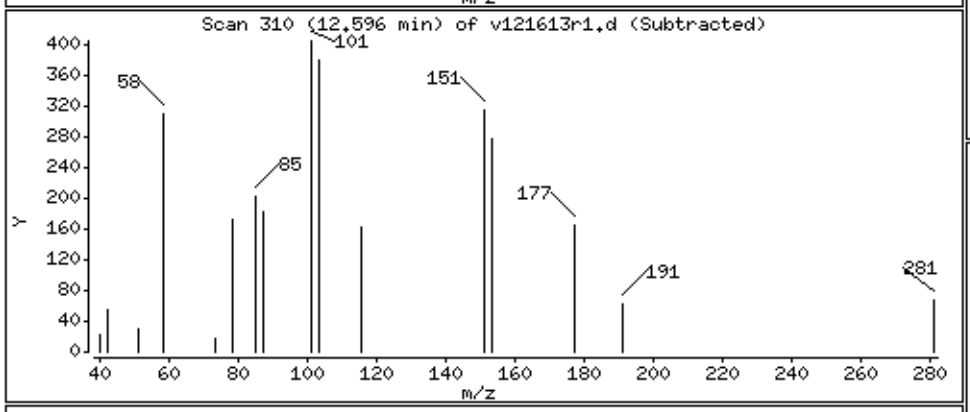
Column phase: RTx-624

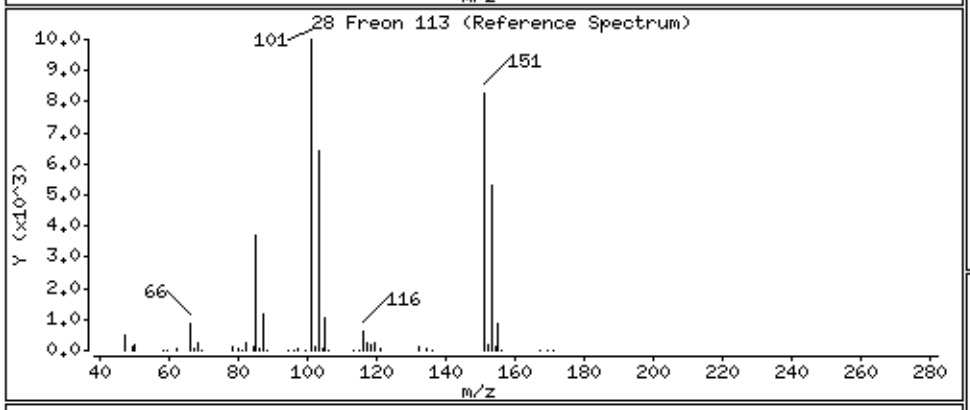
Column diameter: 0.32

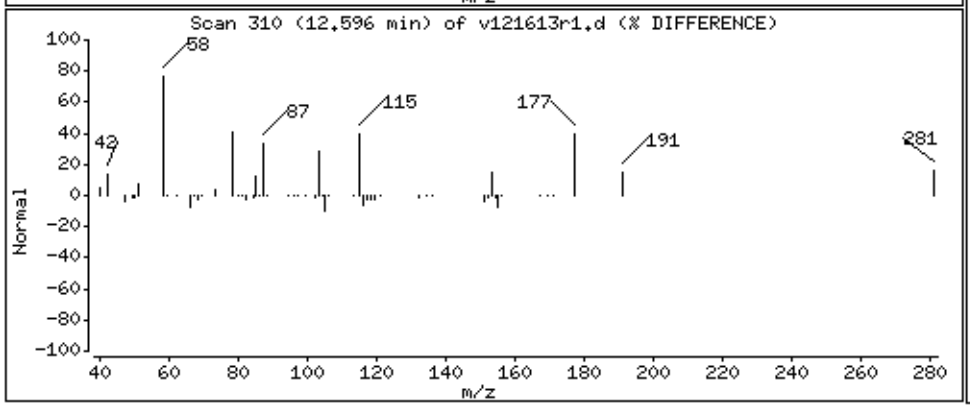
28 Freon 113

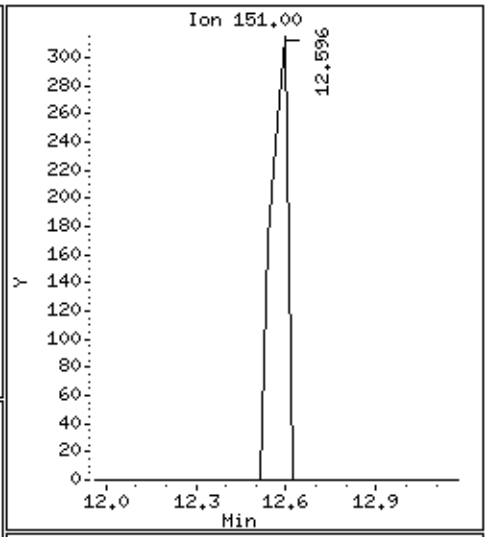
Concentration: 0.06051 PPBV

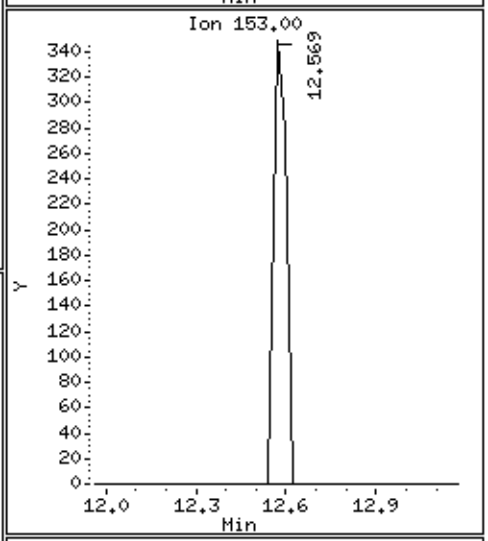


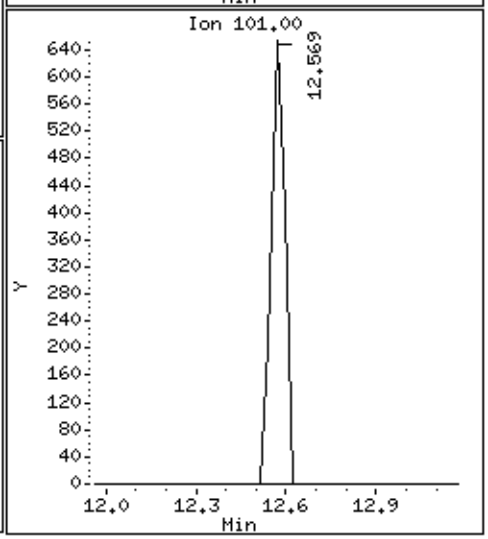



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

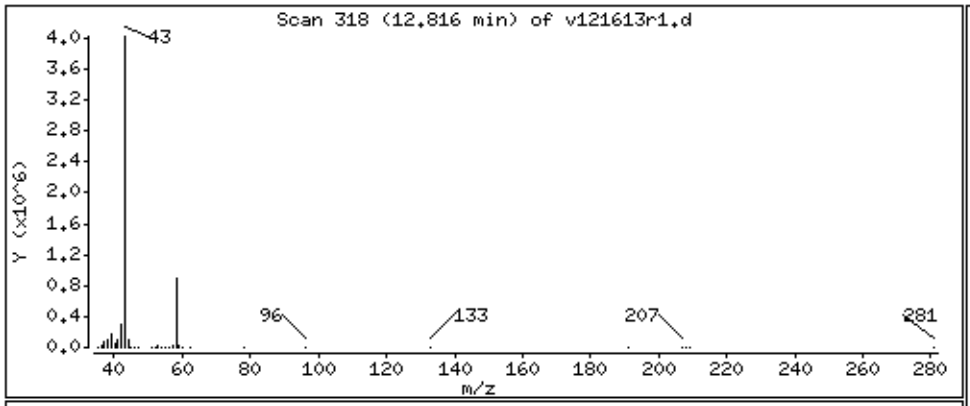
Operator: sn

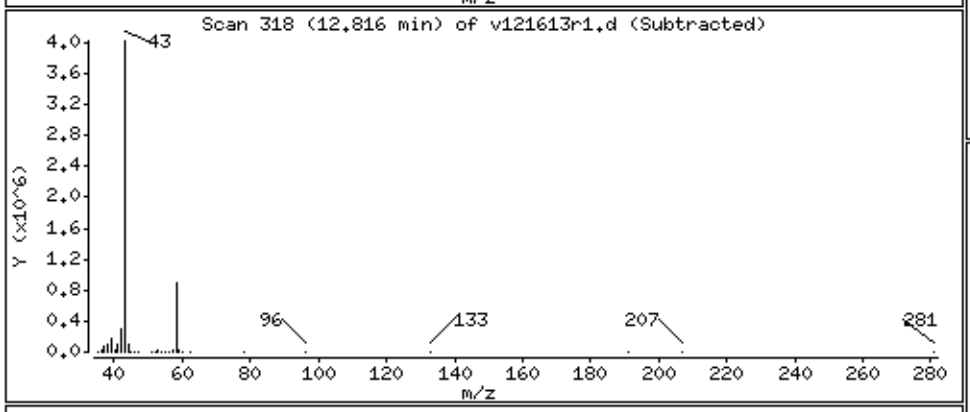
Column phase: RTx-624

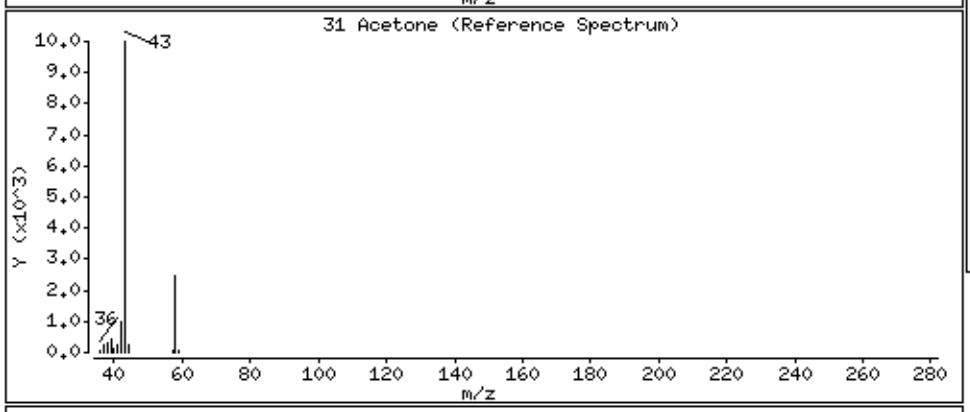
Column diameter: 0.32

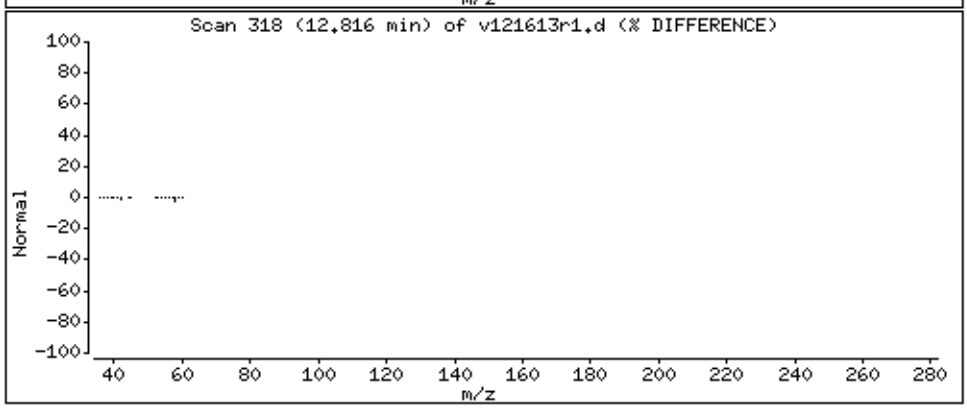
31 Acetone

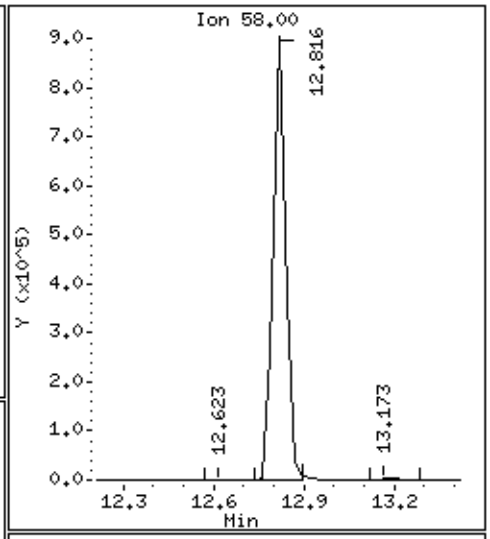
Concentration: 316.63 PPBV

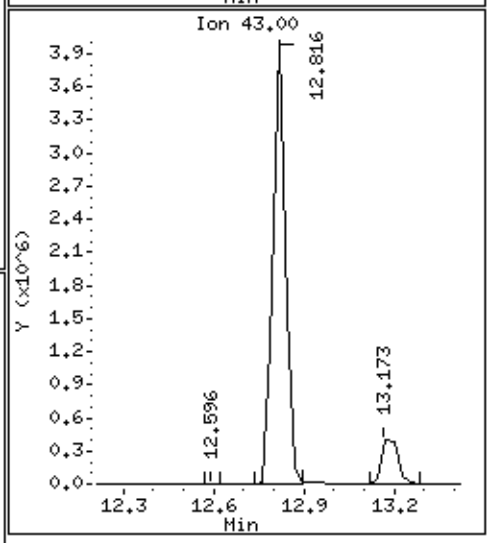


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

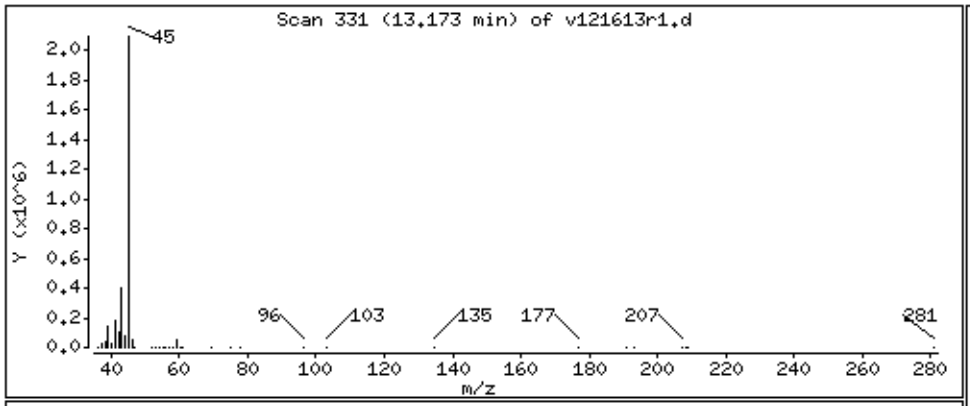
Operator: sn

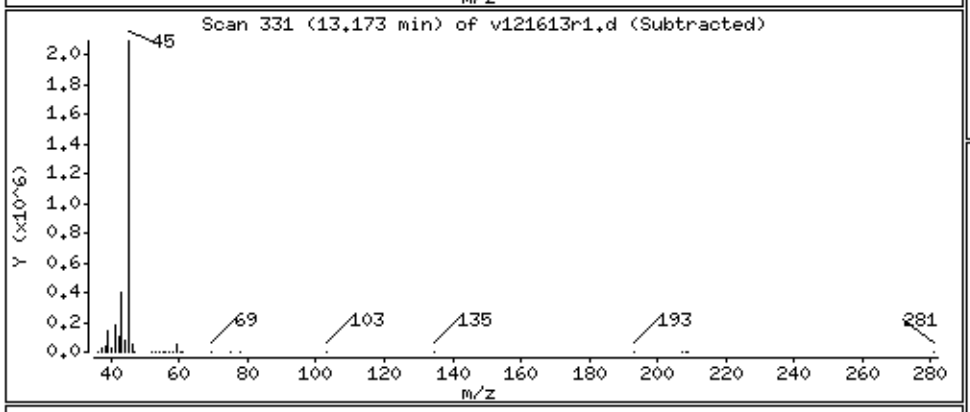
Column phase: RTx-624

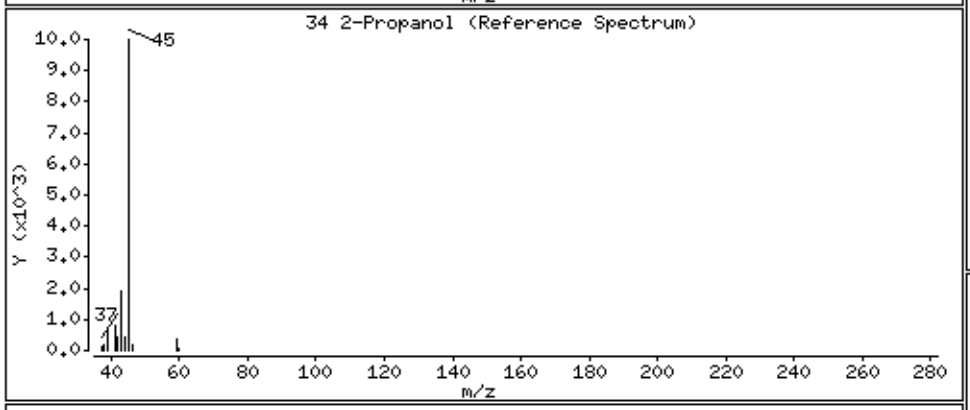
Column diameter: 0.32

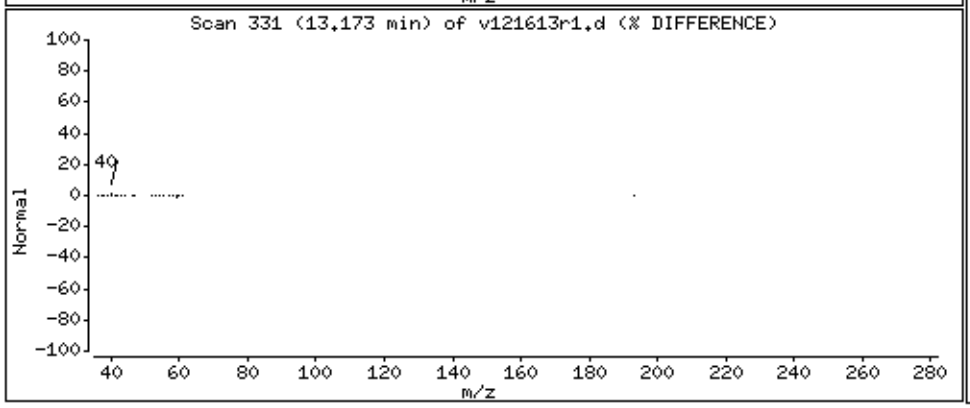
34 2-Propanol

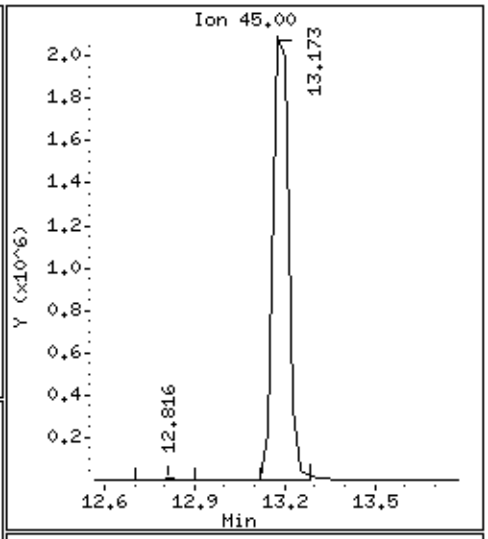
Concentration: 203.99 PPBV

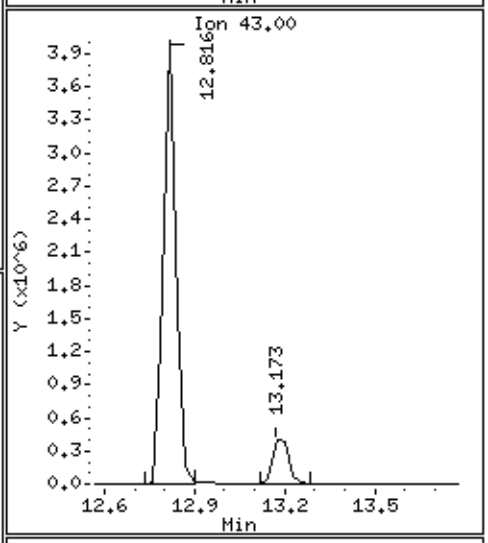


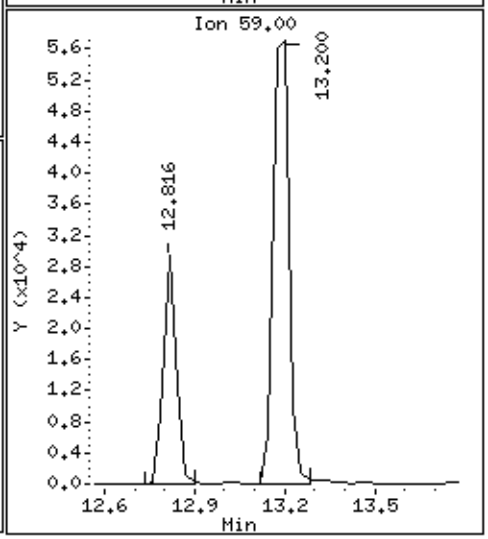



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

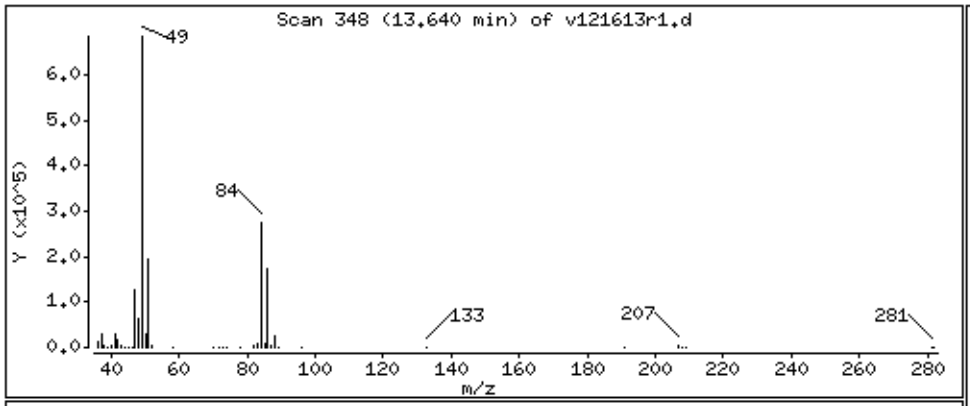
Operator: sn

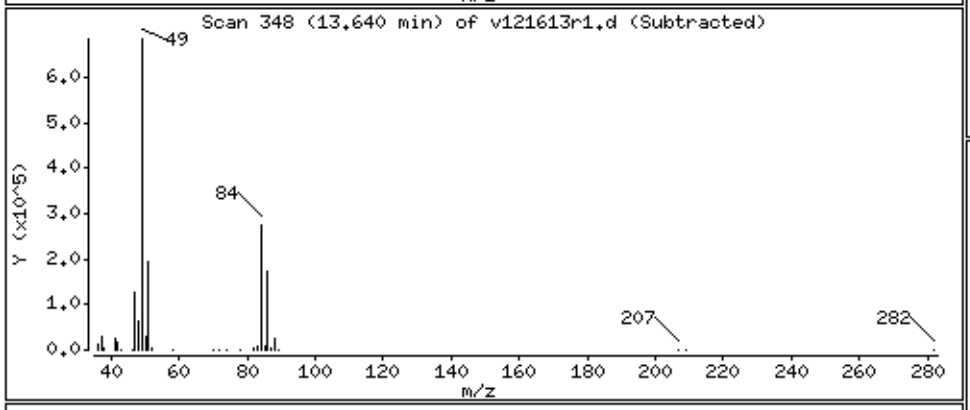
Column phase: RTx-624

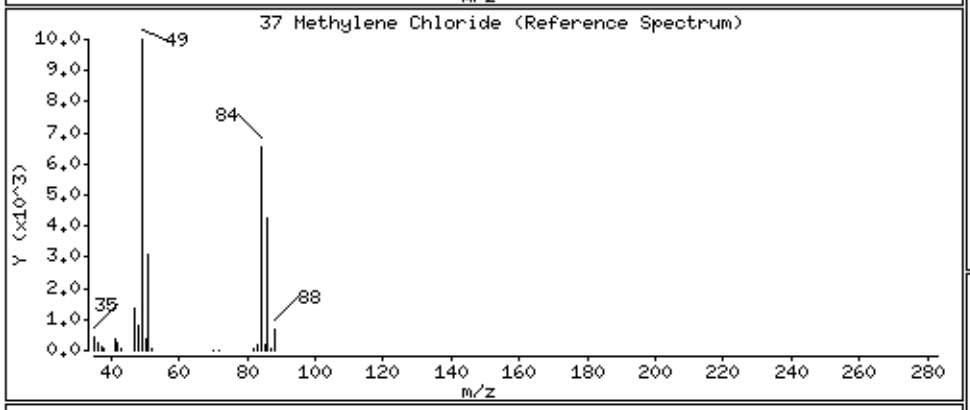
Column diameter: 0.32

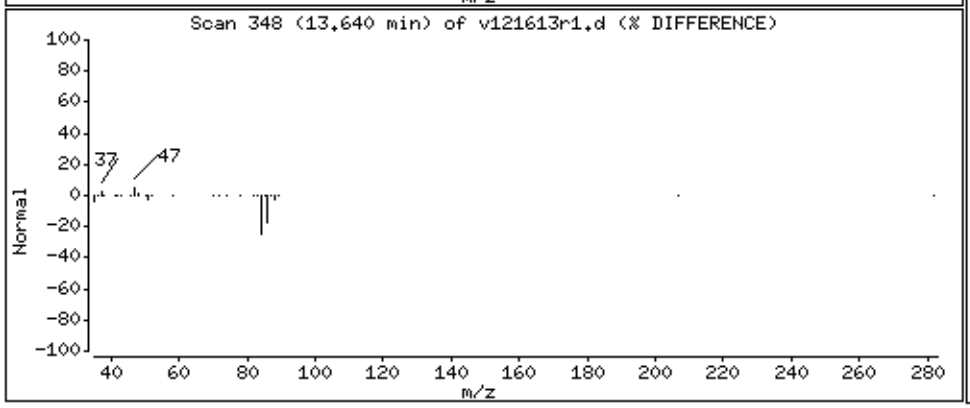
37 Methylene Chloride

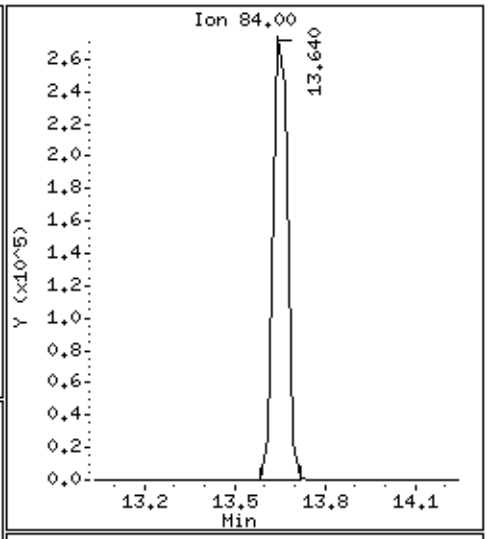
Concentration: 88.387 PPBV

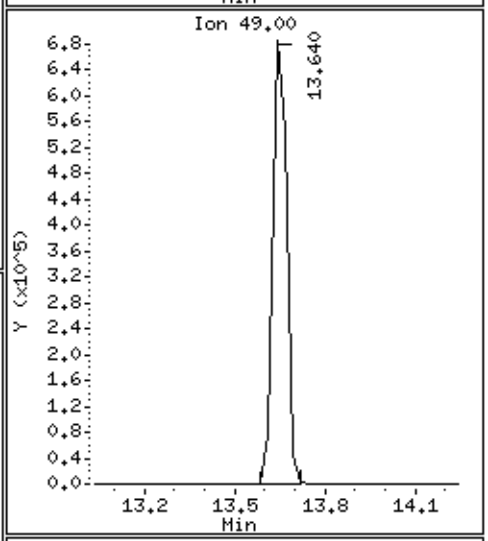


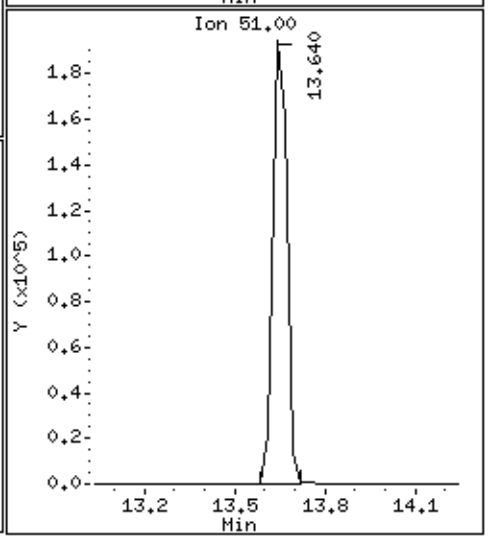



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

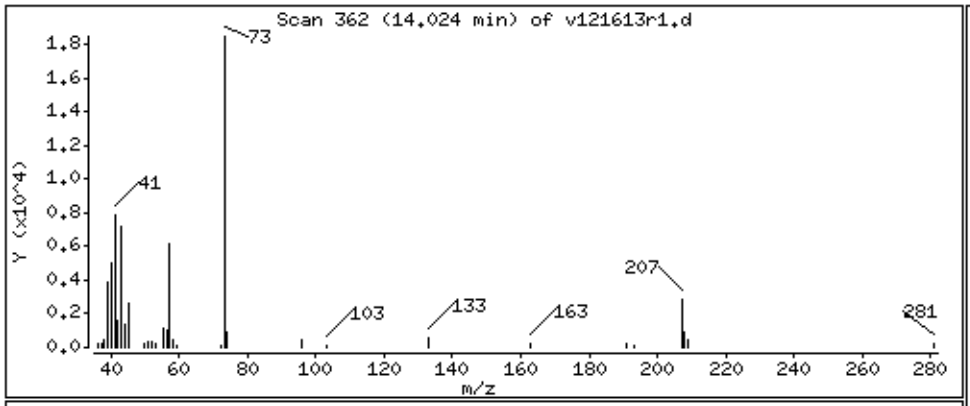
Operator: sn

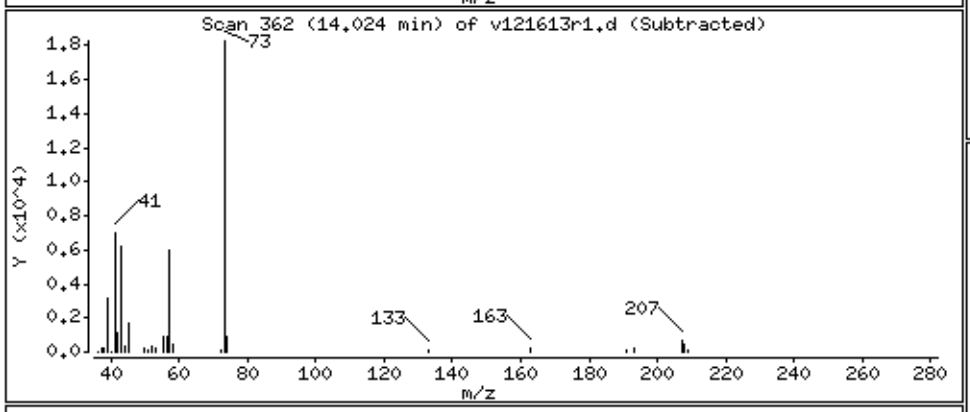
Column phase: RTx-624

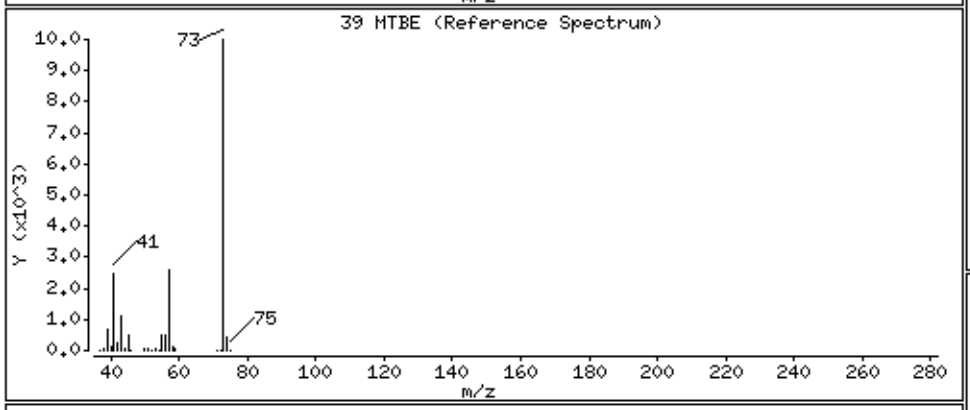
Column diameter: 0.32

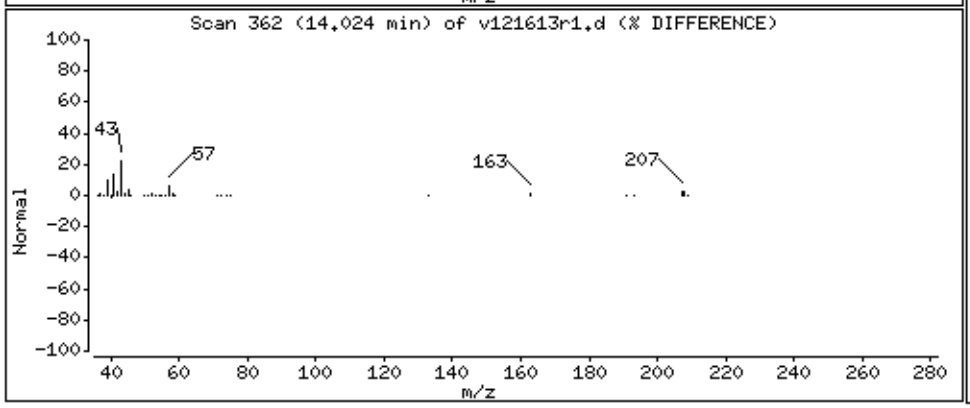
39 MTBE

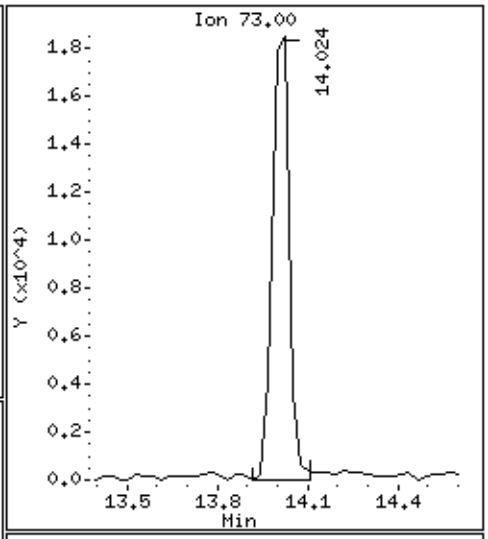
Concentration: 1.968 PPBV

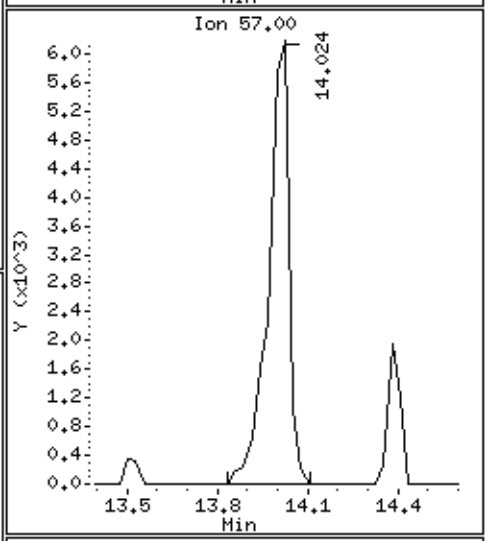


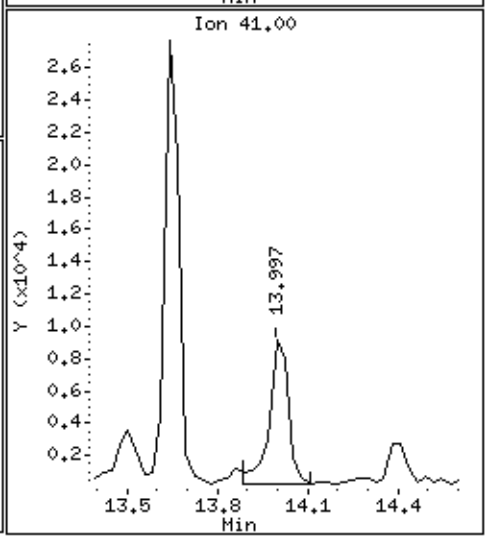



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

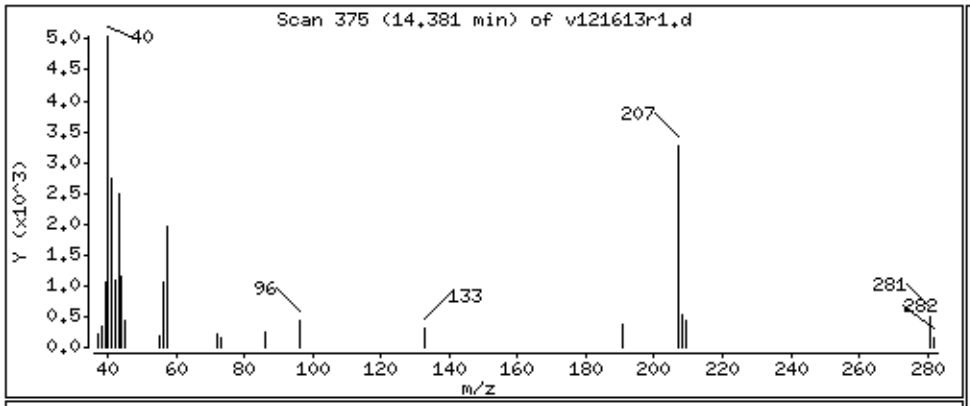
Operator: sn

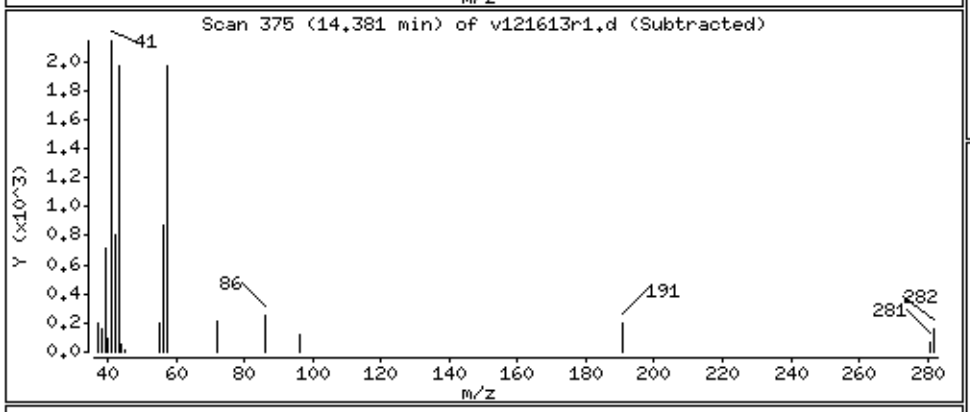
Column phase: RTx-624

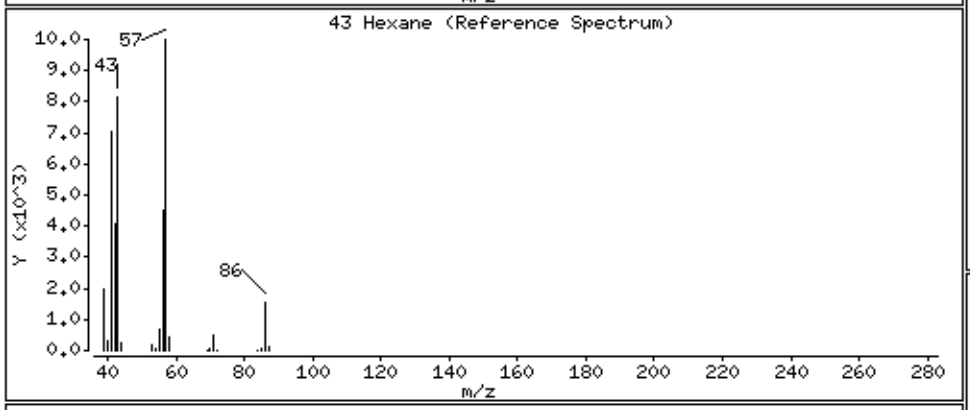
Column diameter: 0.32

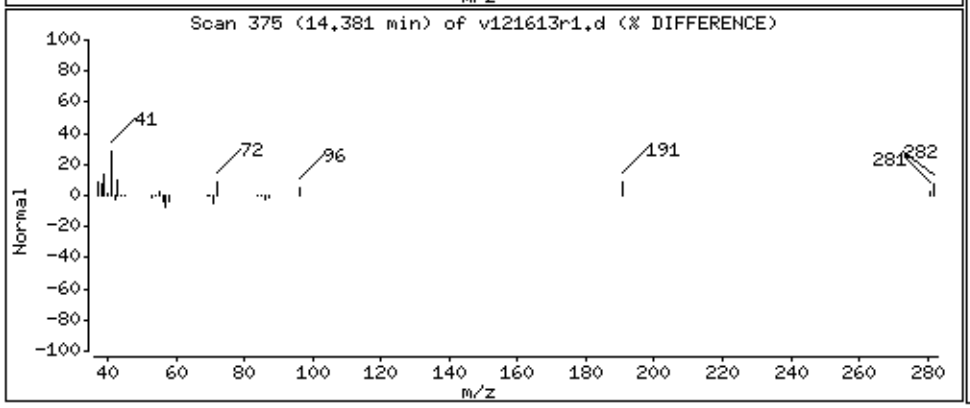
43 Hexane

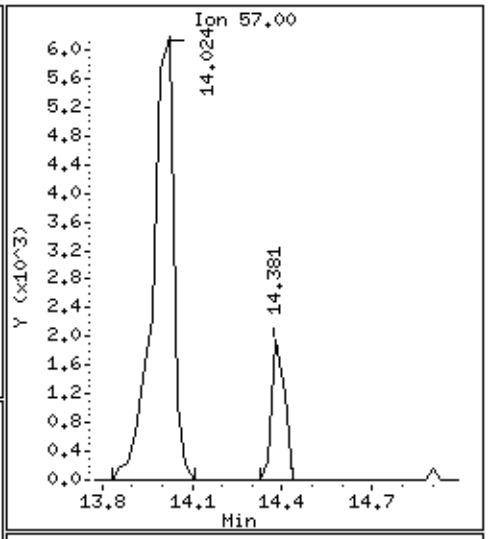
Concentration: 0.1872 PPBV

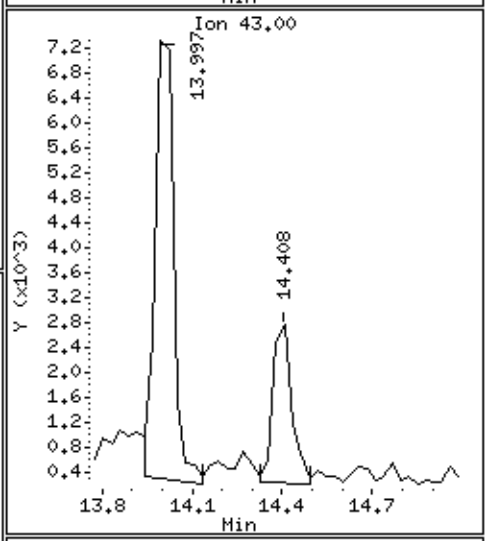


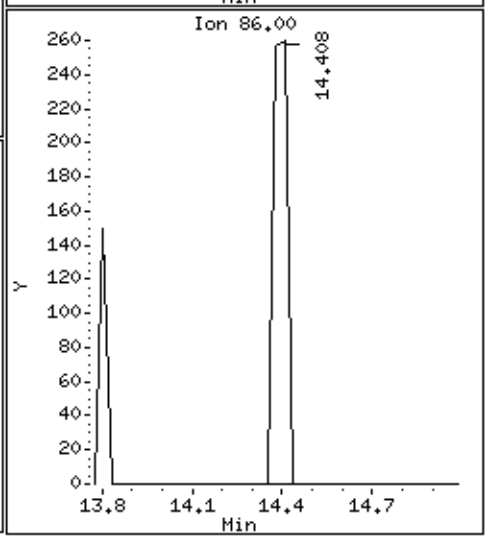



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

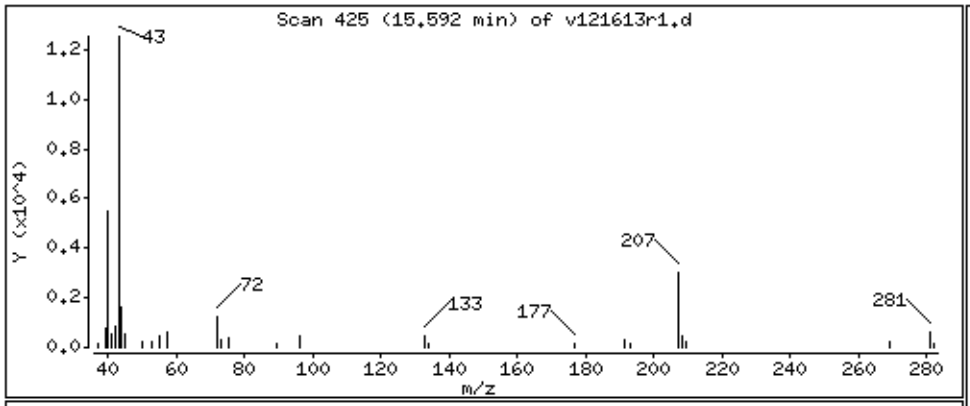
Operator: sn

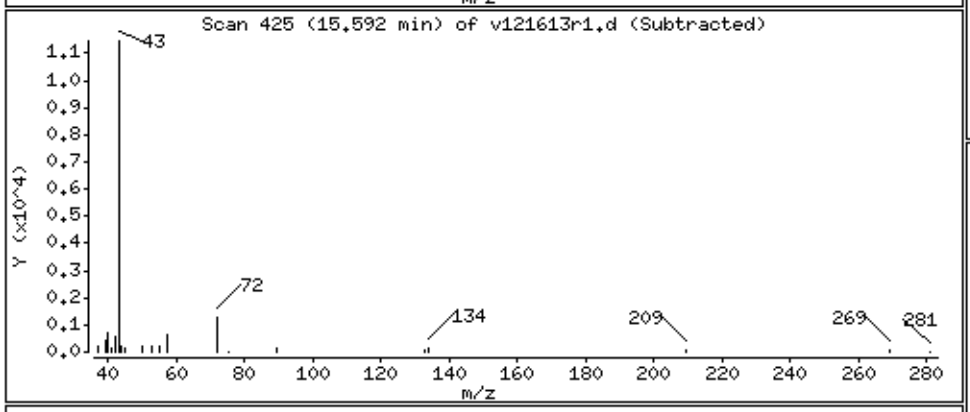
Column phase: RTx-624

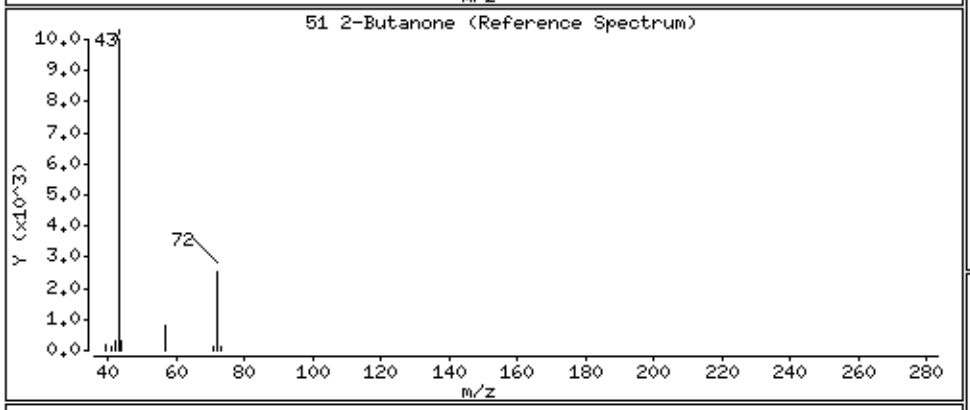
Column diameter: 0.32

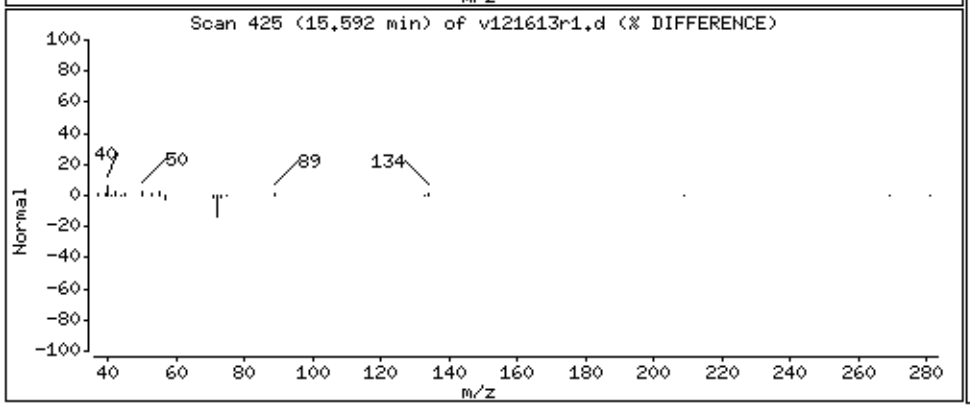
51 2-Butanone

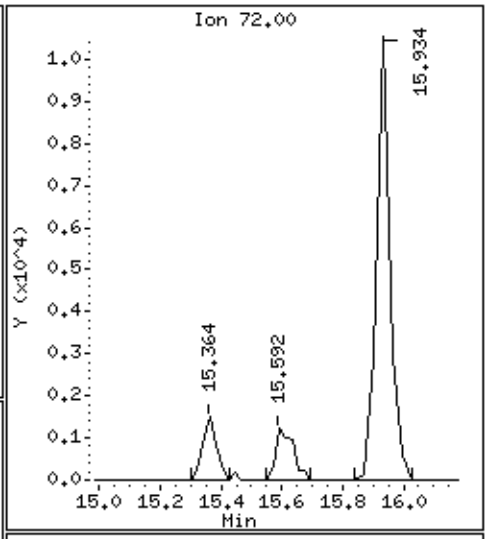
Concentration: 0.8120 PPBV

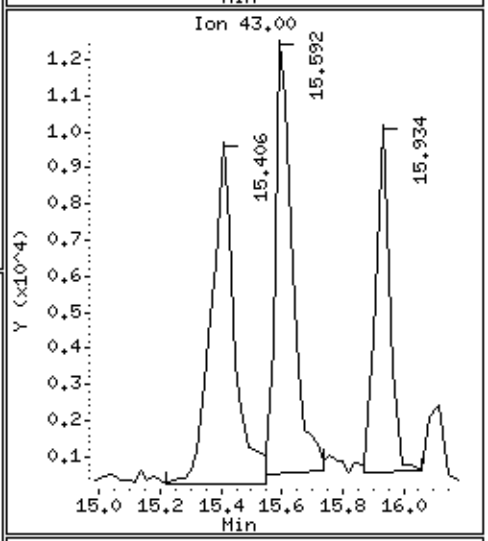


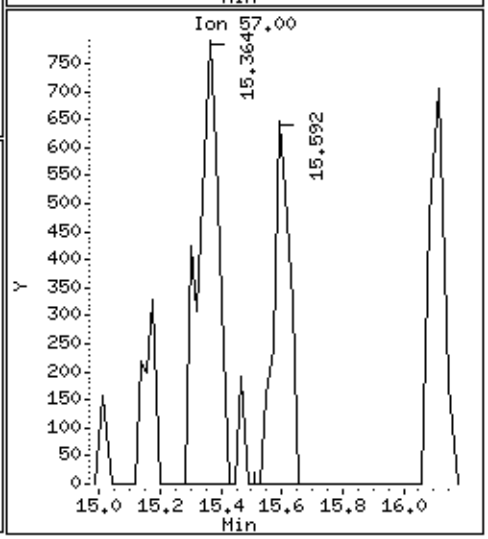



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

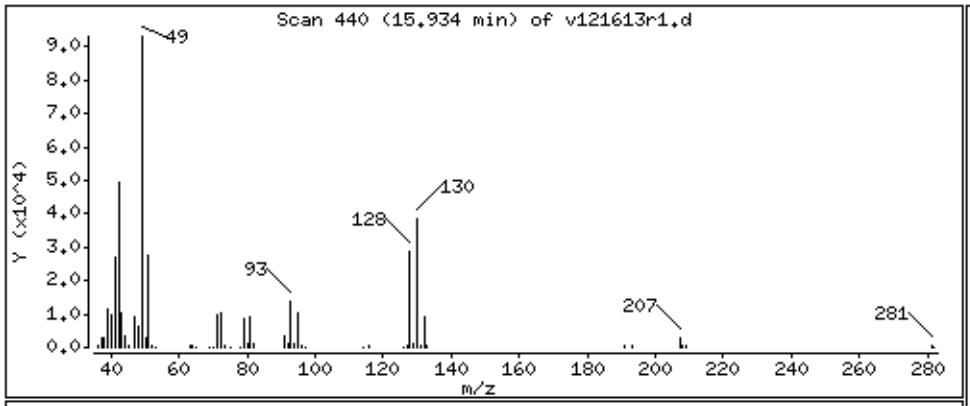
Operator: sn

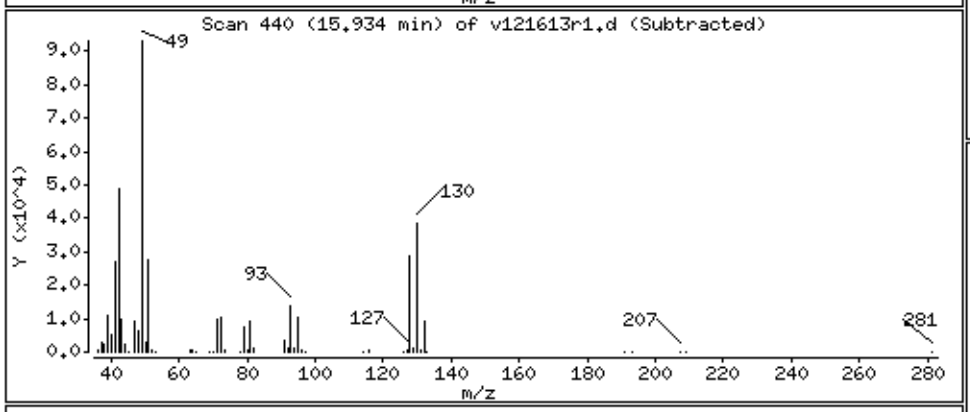
Column phase: RTx-624

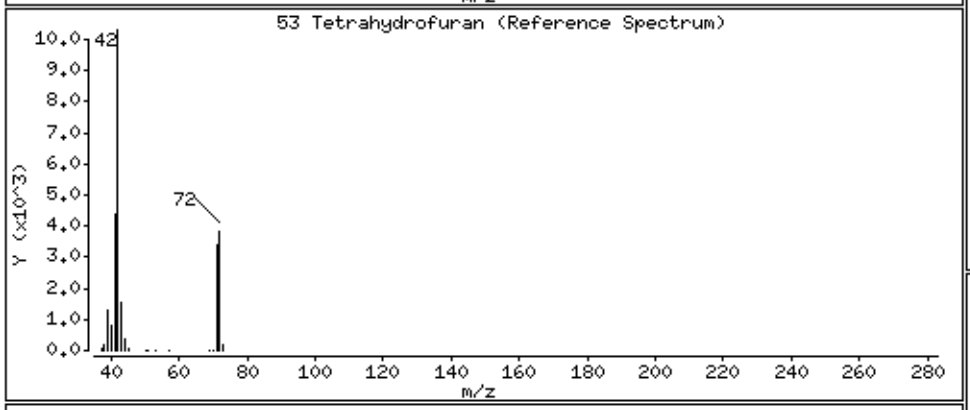
Column diameter: 0.32

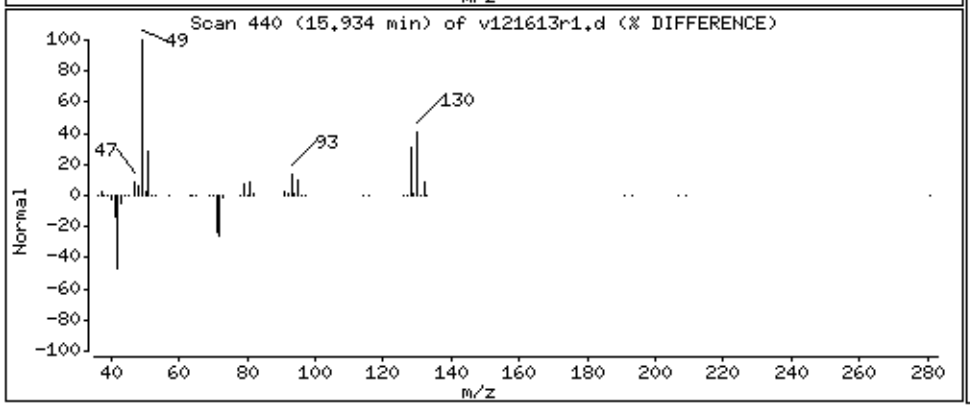
53 Tetrahydrofuran

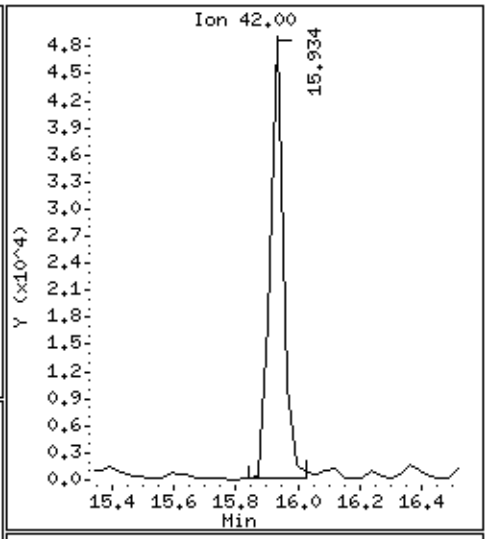
Concentration: 4.646 PPBV

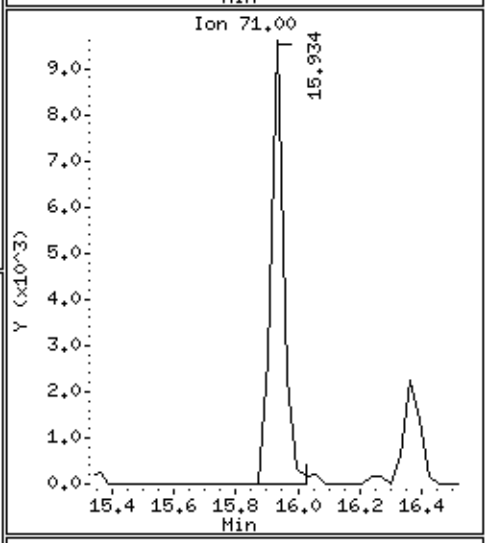


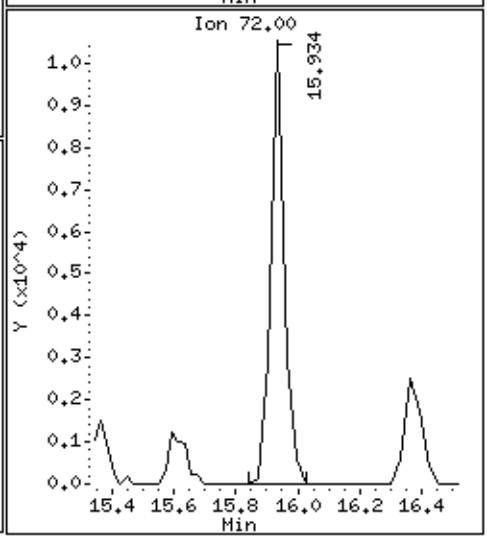



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

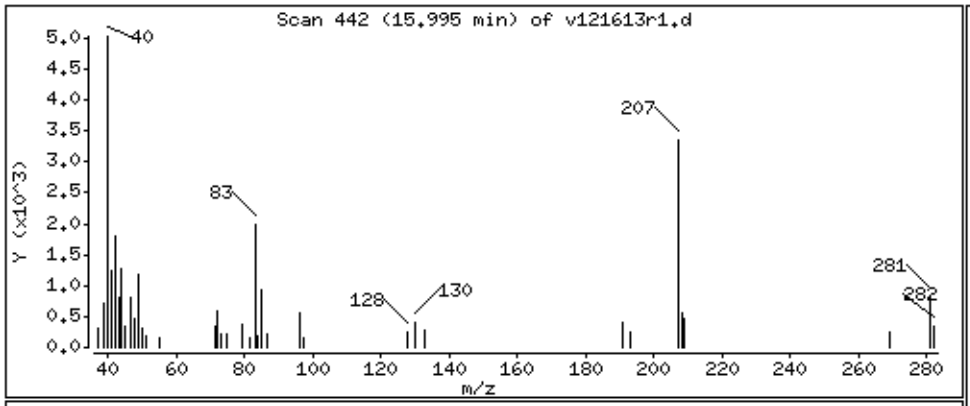
Operator: sn

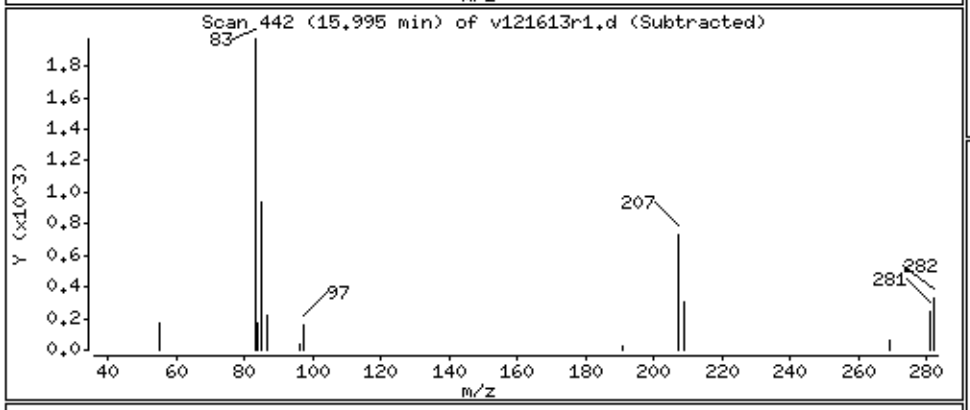
Column phase: RTx-624

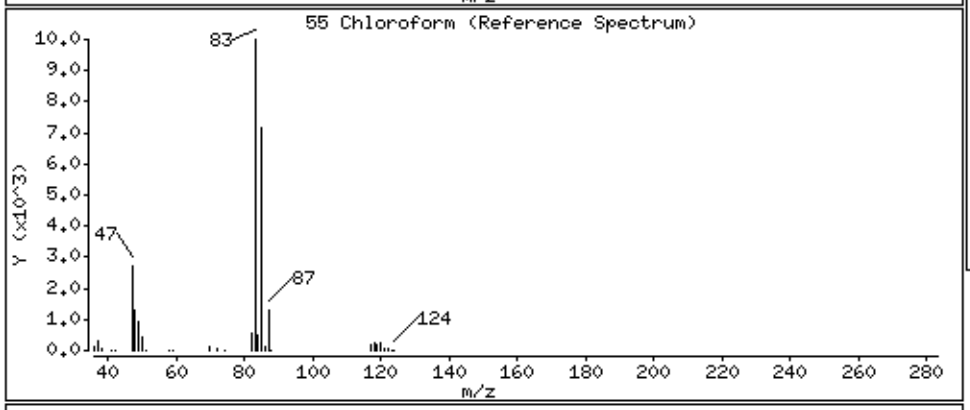
Column diameter: 0.32

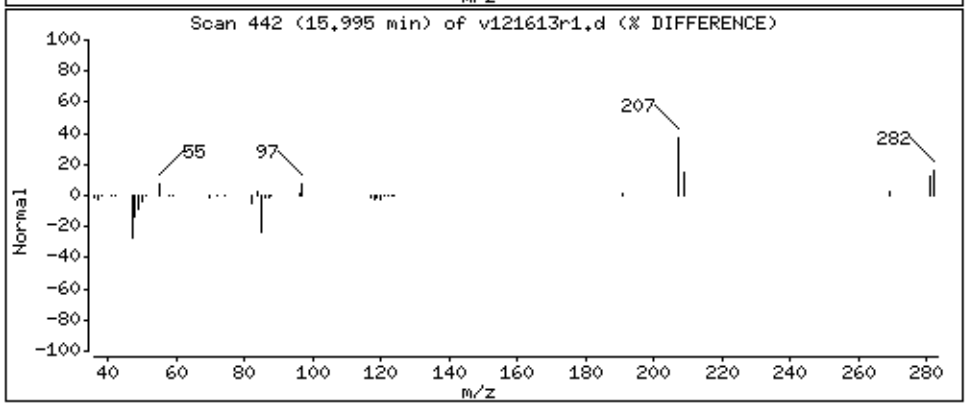
55 Chloroform

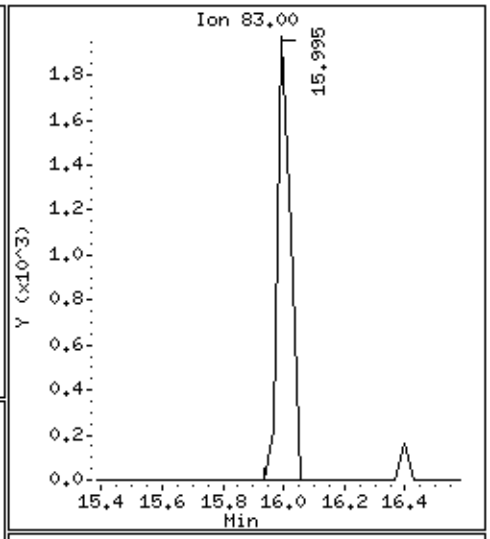
Concentration: 0.2076 PPBV

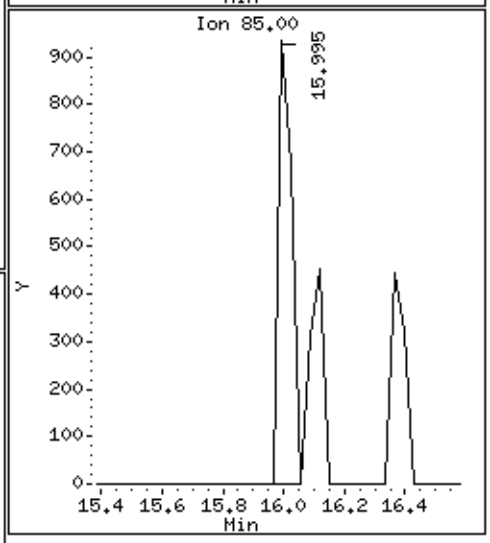


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

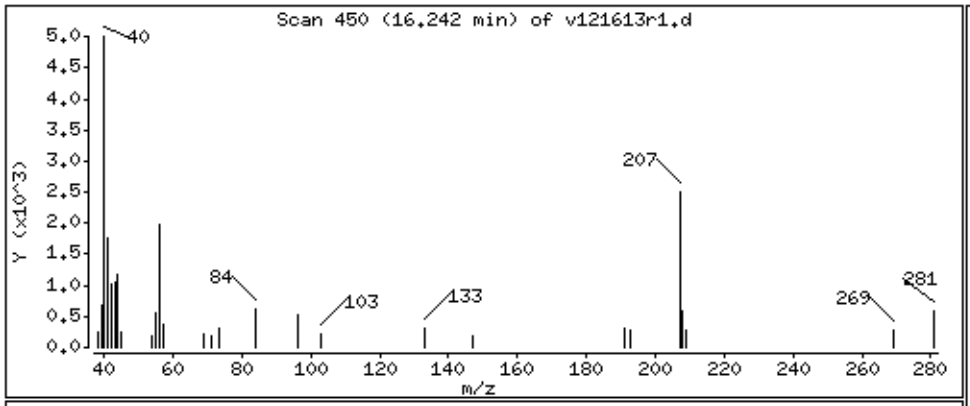
Operator: sn

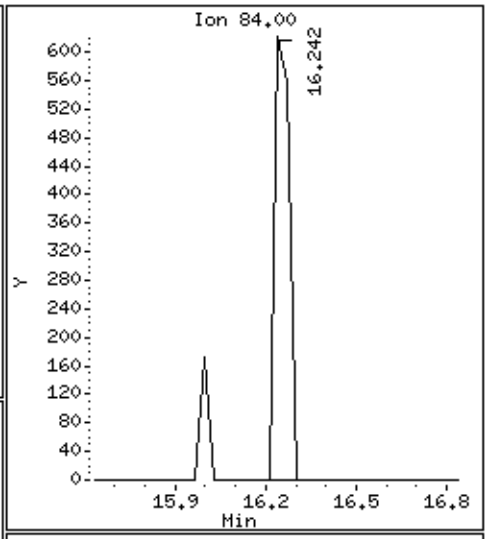
Column phase: RTx-624

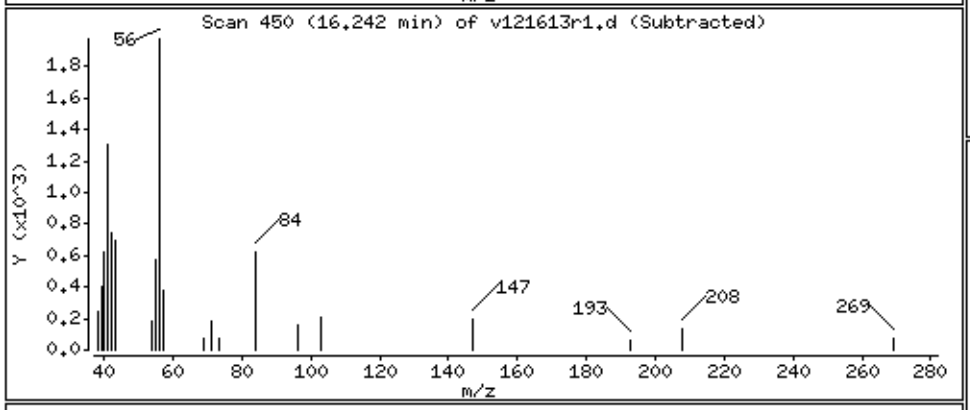
Column diameter: 0.32

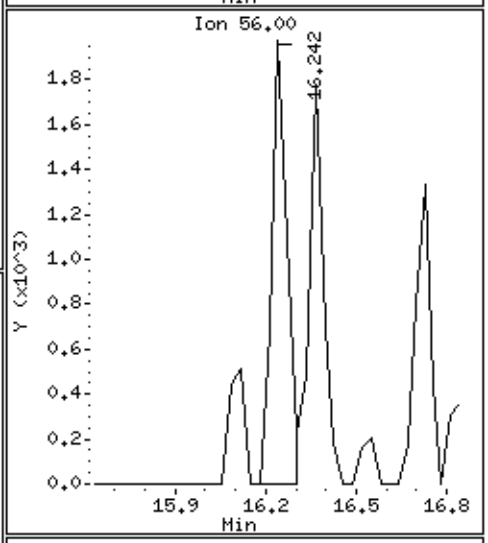
57 Cyclohexane

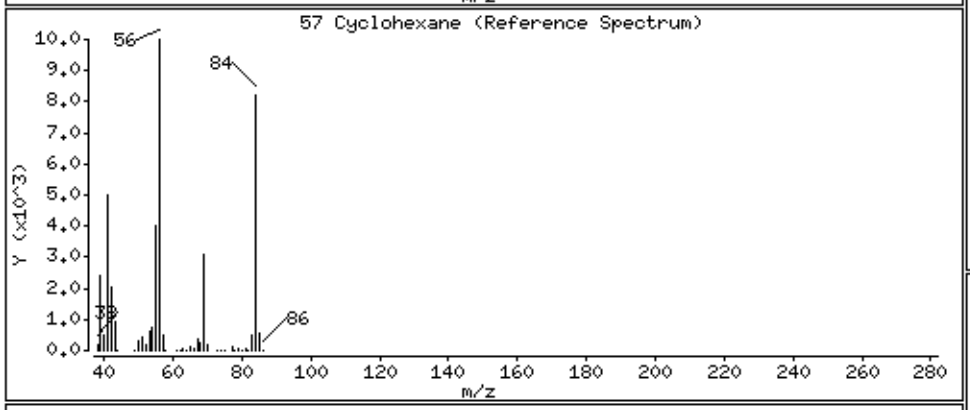
Concentration: 0.1184 PPBV

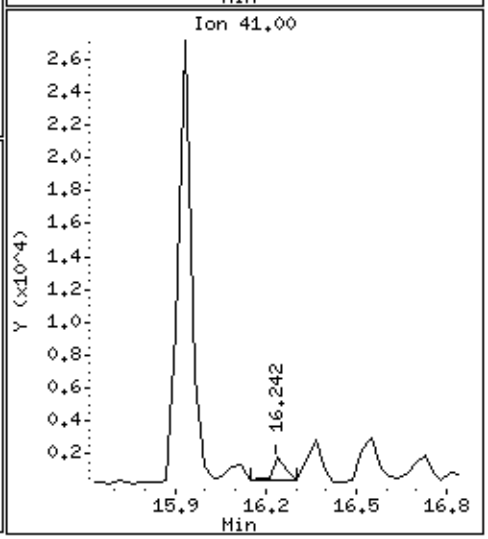


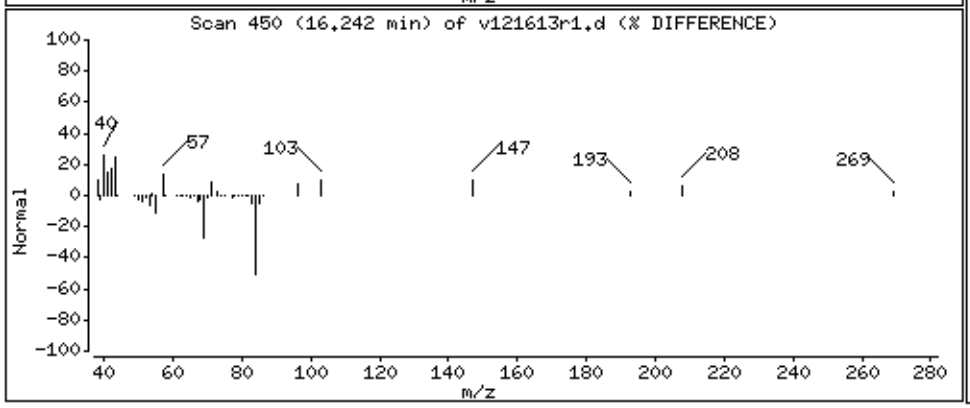



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

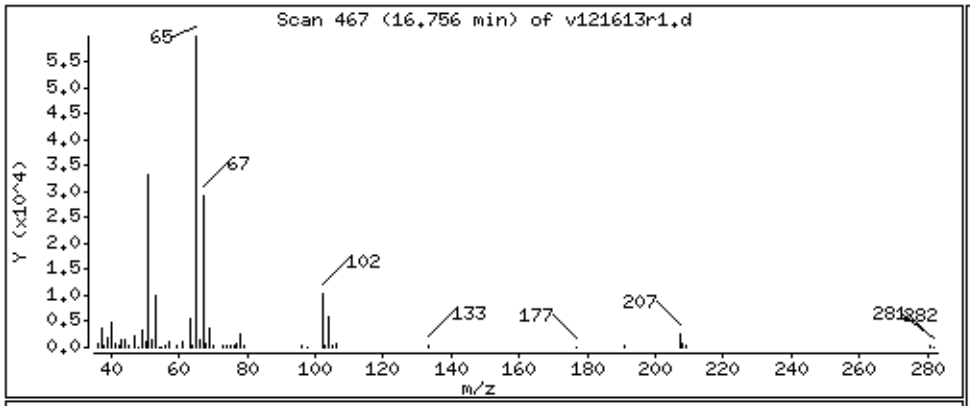
Operator: sn

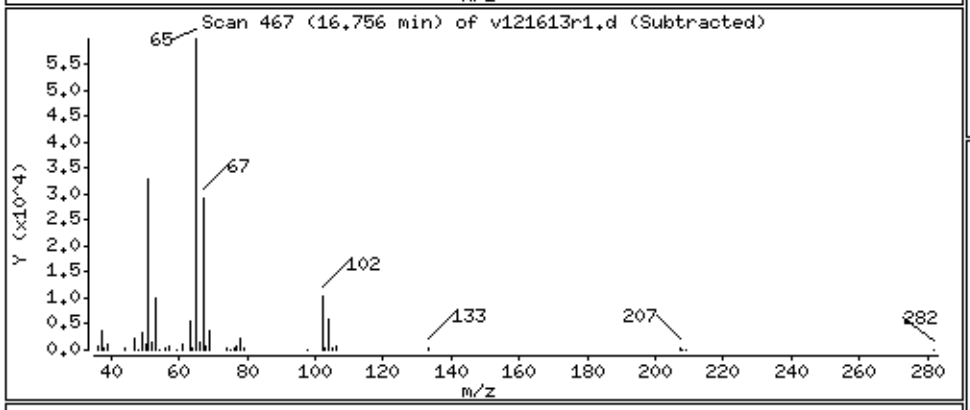
Column phase: RTx-624

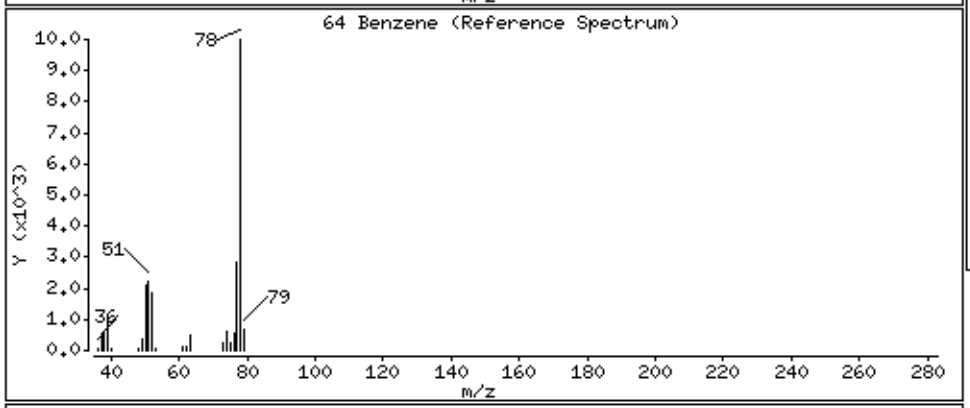
Column diameter: 0.32

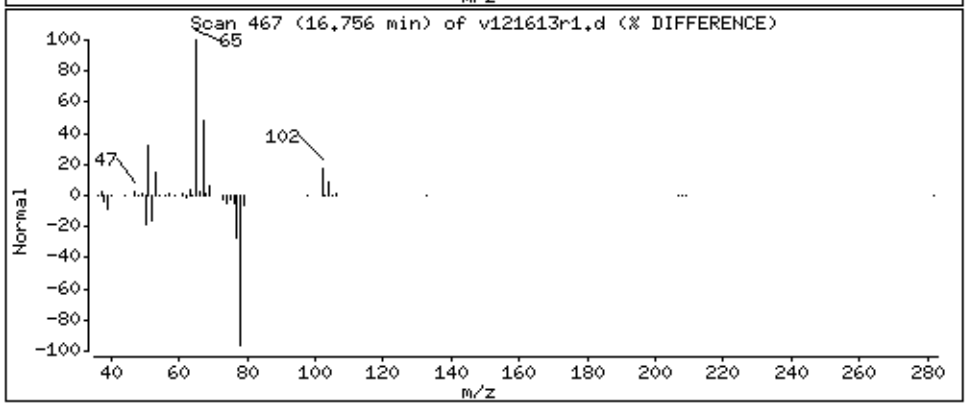
64 Benzene

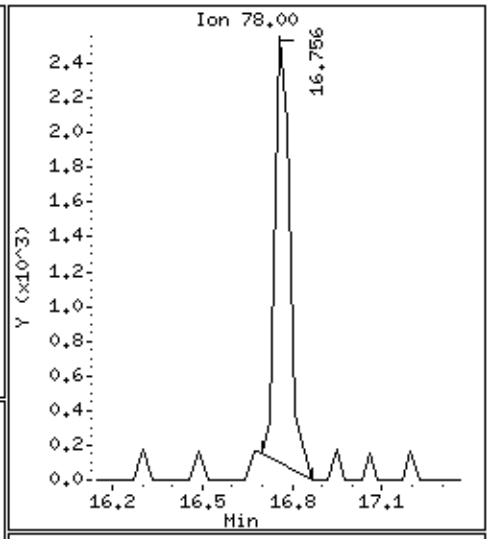
Concentration: 0.2036 PPBV

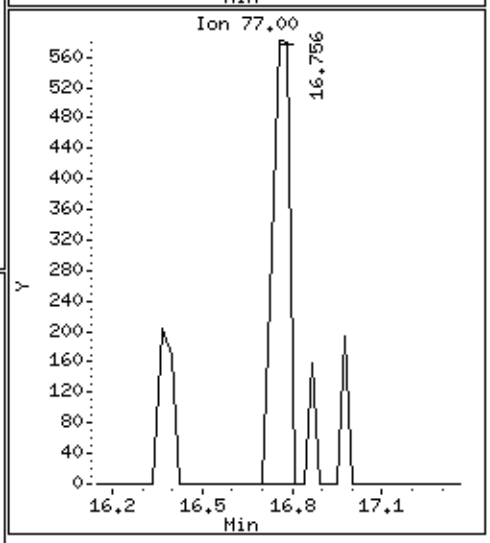


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

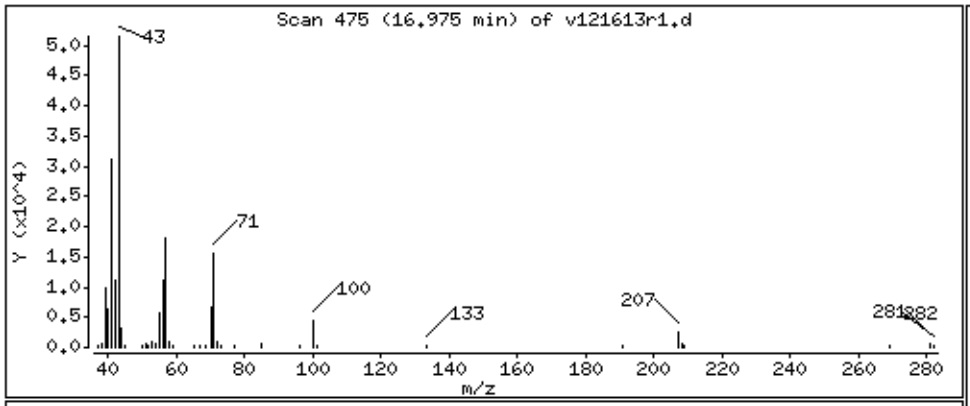
Operator: sn

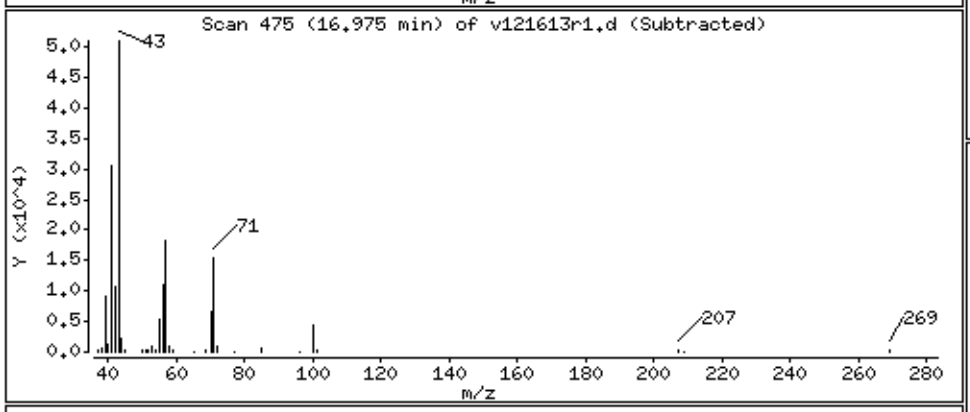
Column phase: RTx-624

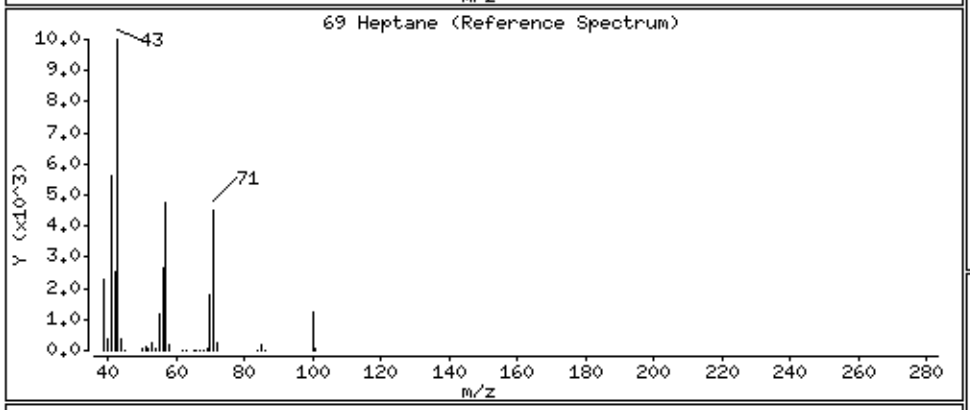
Column diameter: 0.32

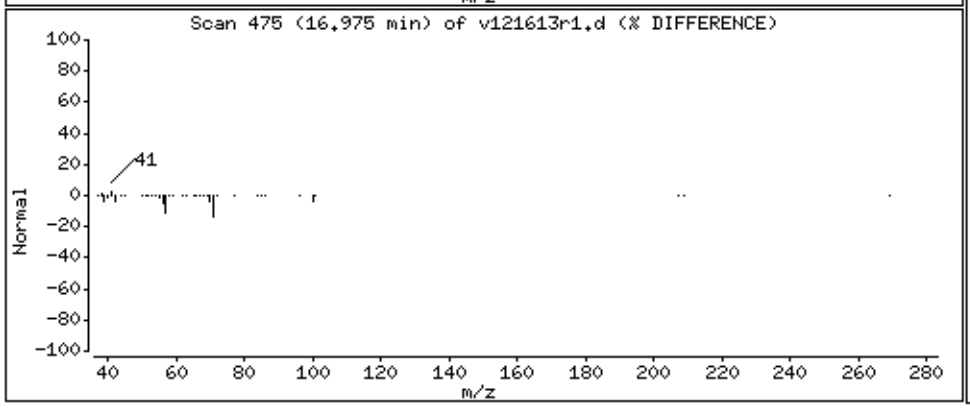
69 Heptane

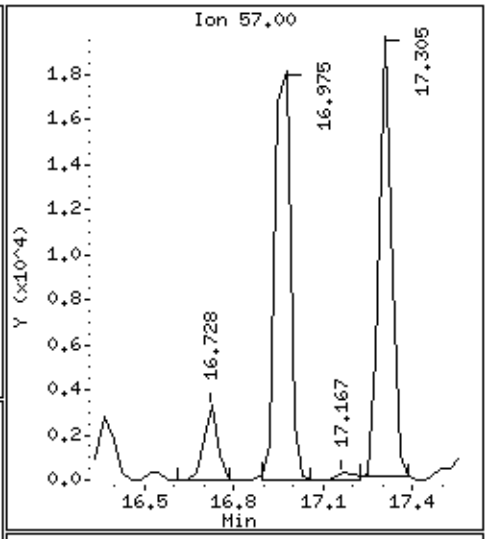
Concentration: 3.649 PPBV

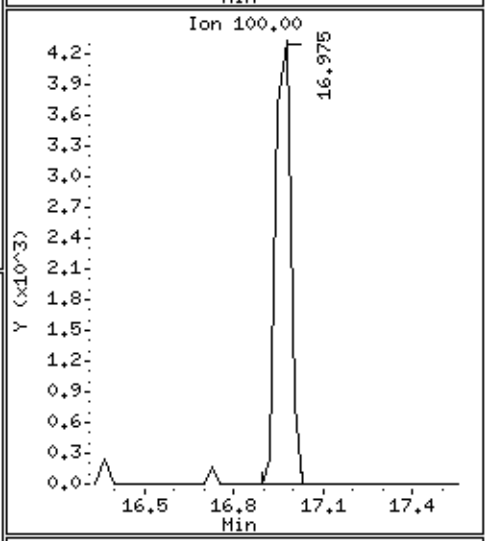


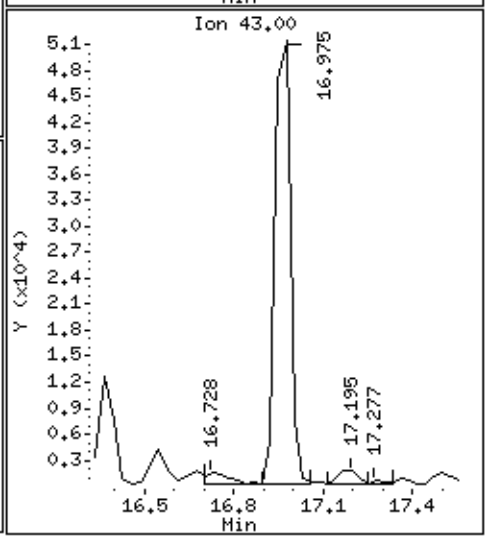



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

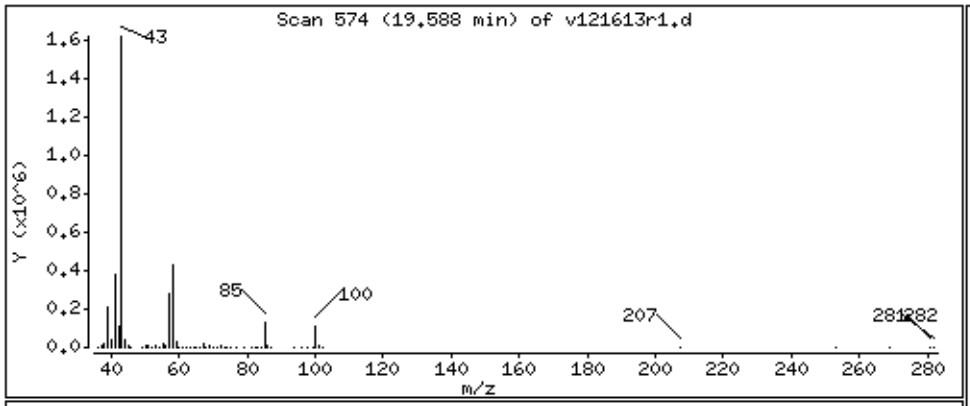
Operator: sn

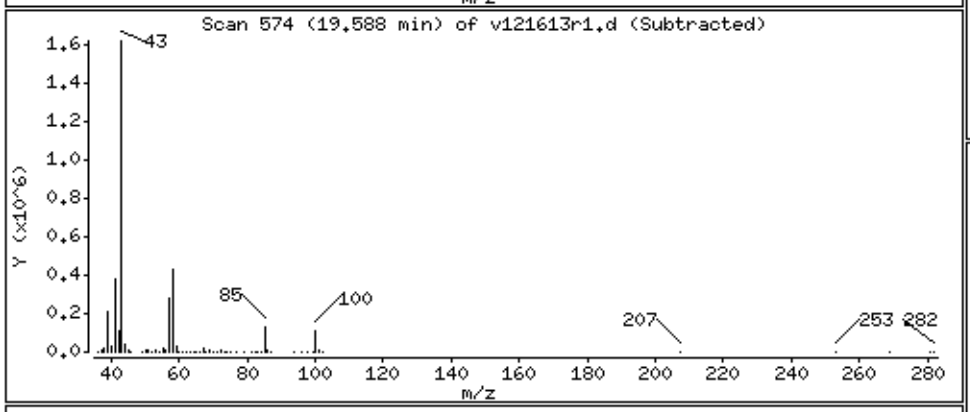
Column phase: RTx-624

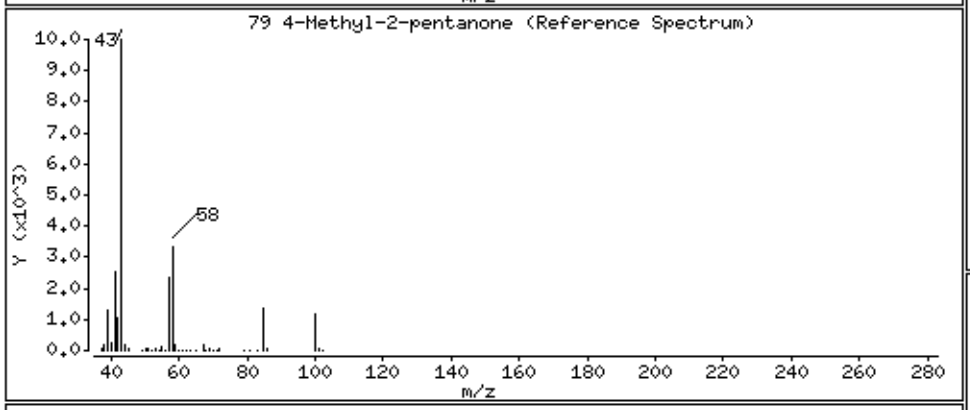
Column diameter: 0.32

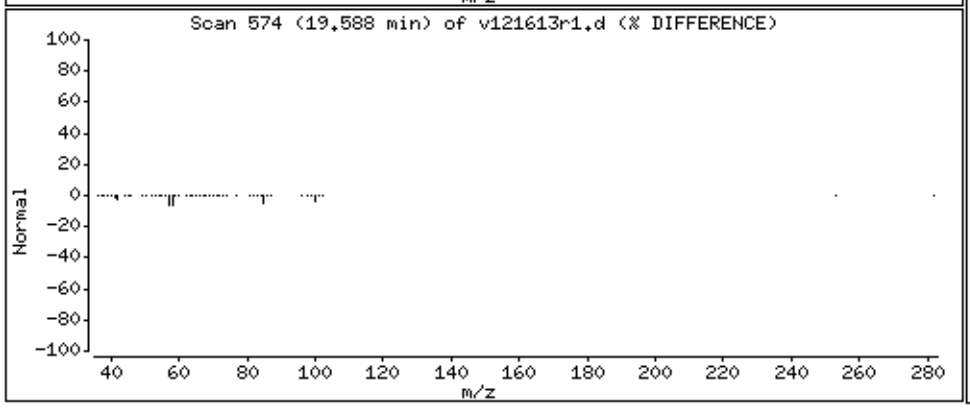
79 4-Methyl-2-pentanone

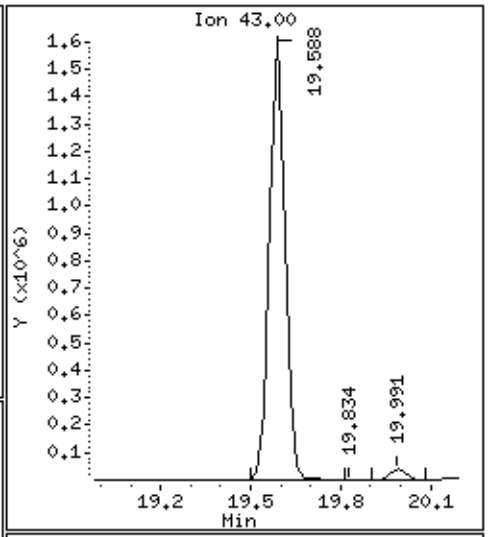
Concentration: 99.869 PPBV

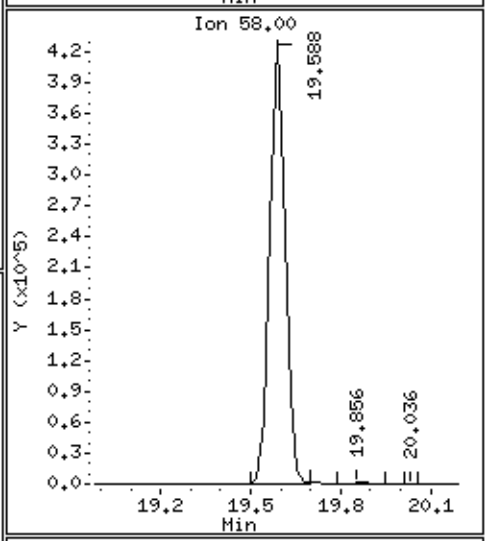


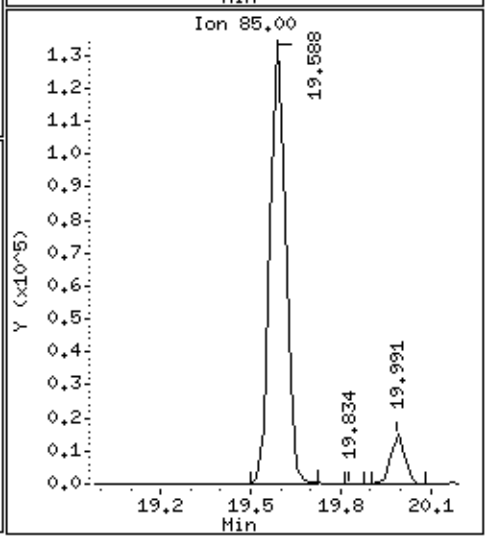



Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

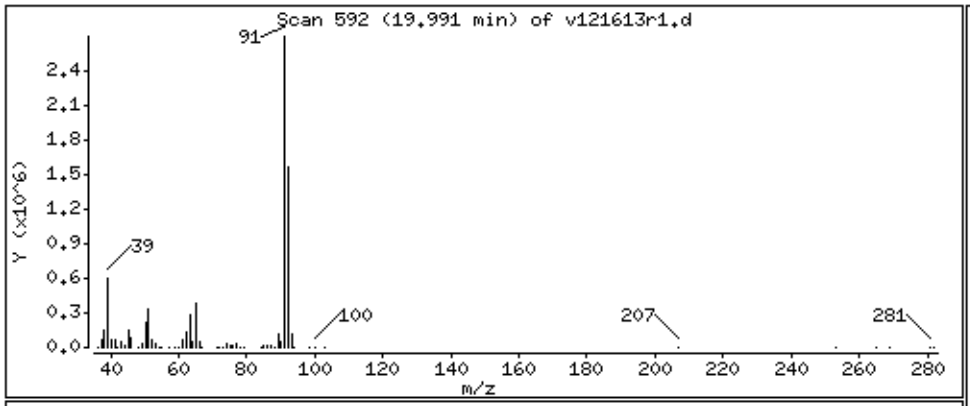
Operator: sn

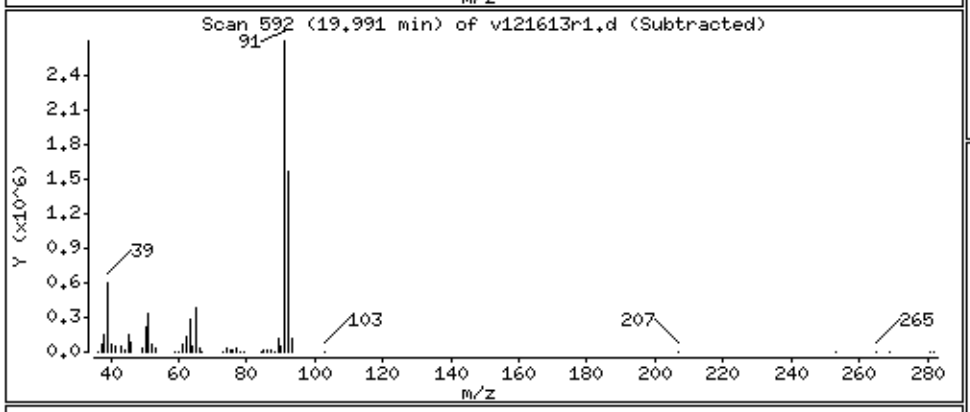
Column phase: RTx-624

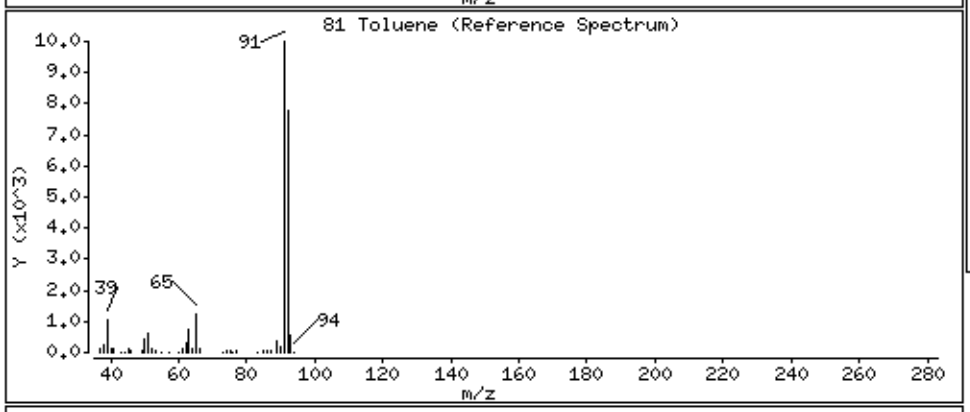
Column diameter: 0.32

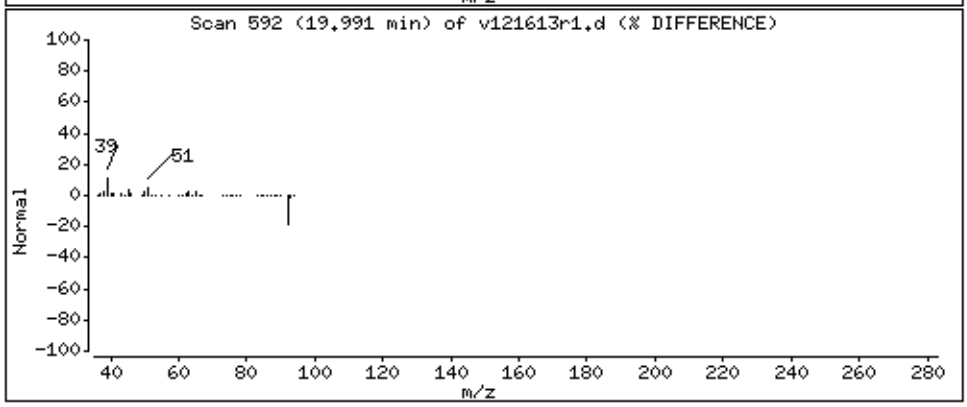
81 Toluene

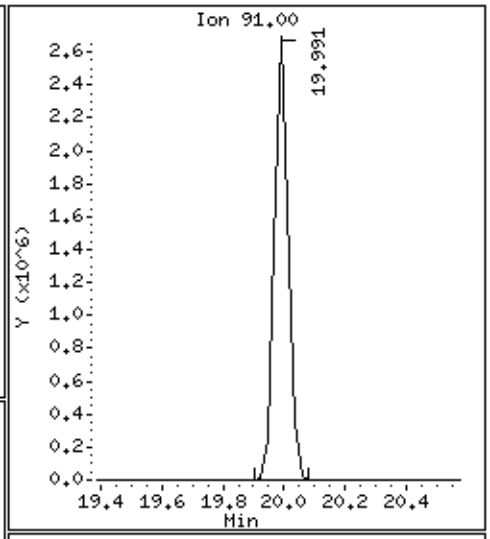
Concentration: 189.66 PPBV

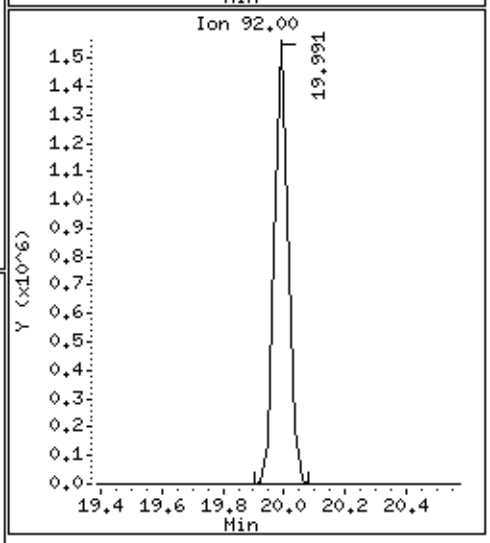


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

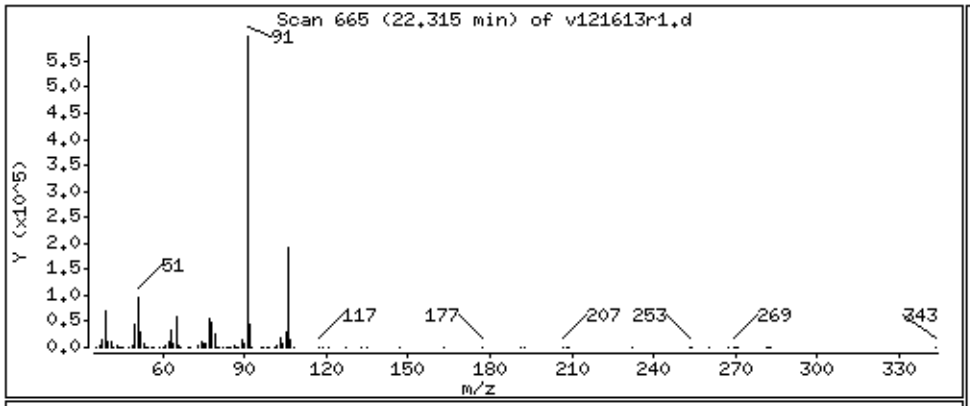
Operator: sn

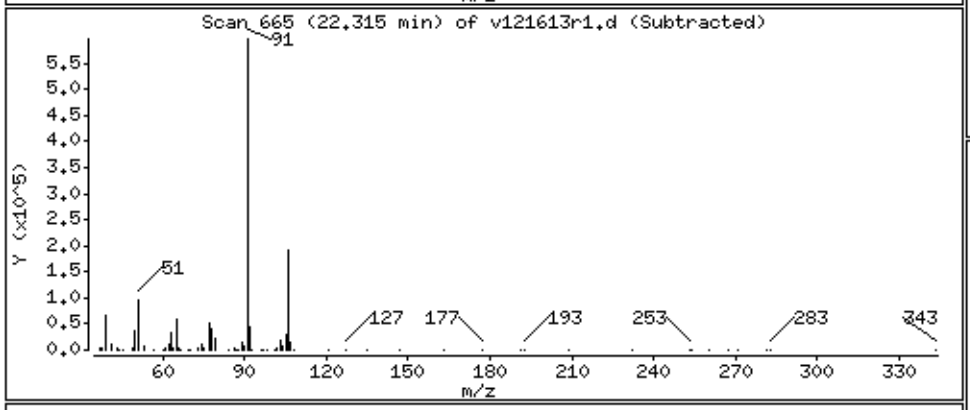
Column phase: RTx-624

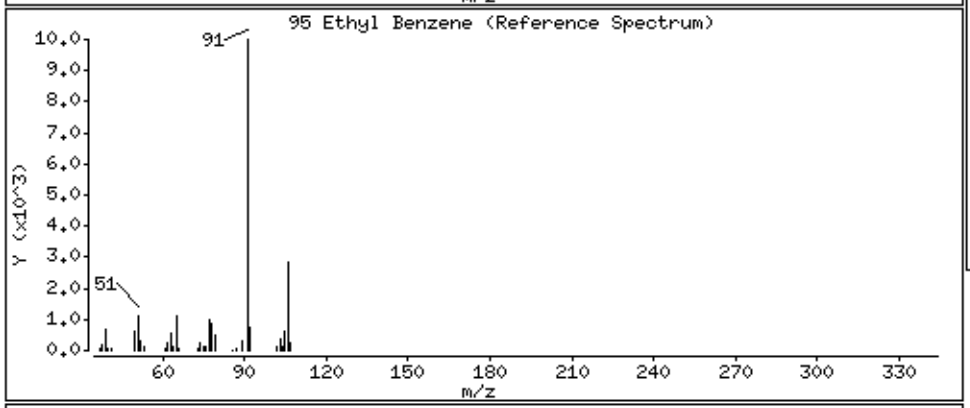
Column diameter: 0.32

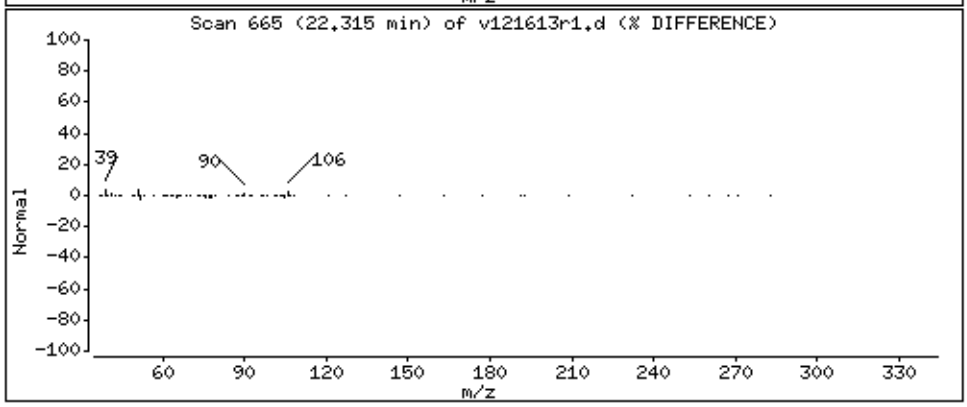
95 Ethyl Benzene

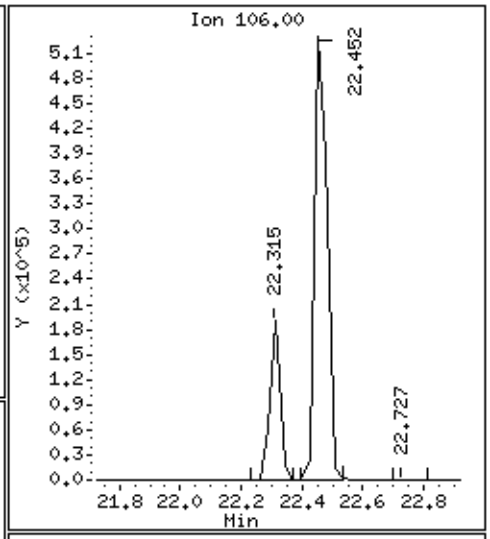
Concentration: 27.572 PPBV

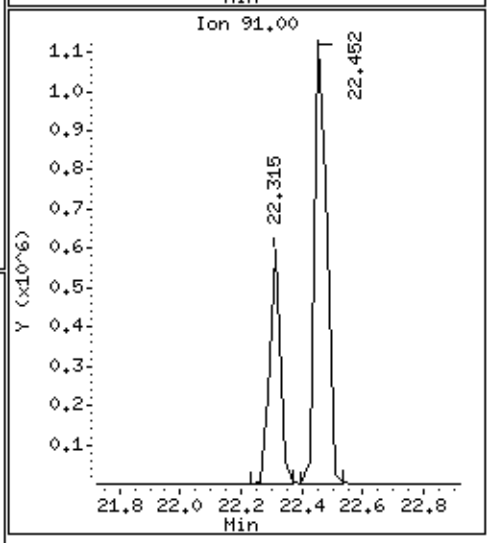


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

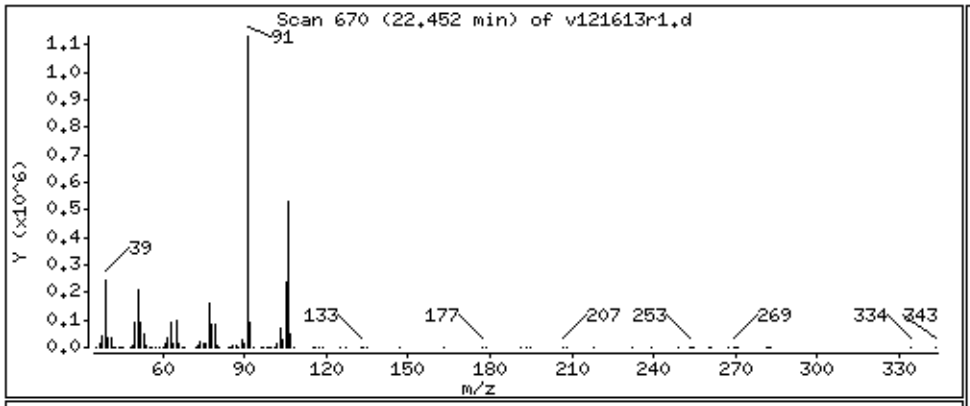
Operator: sn

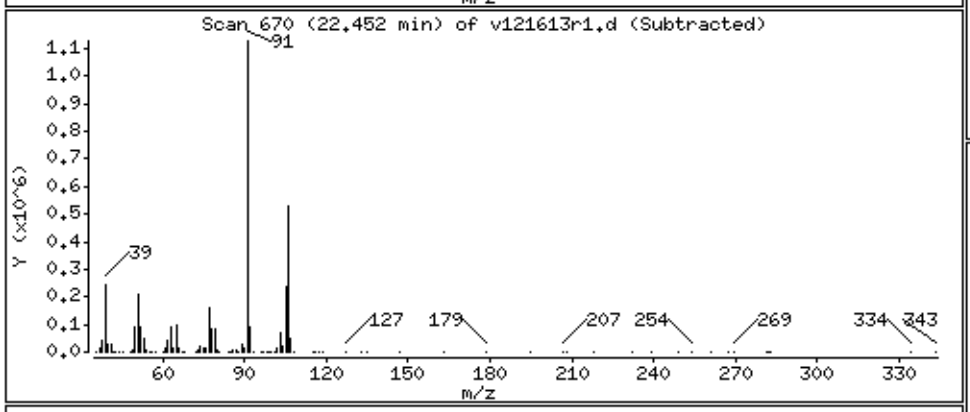
Column phase: RTx-624

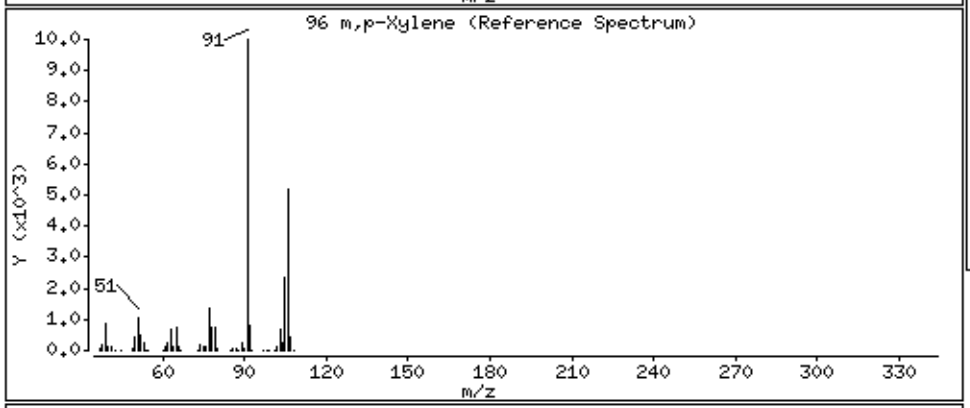
Column diameter: 0.32

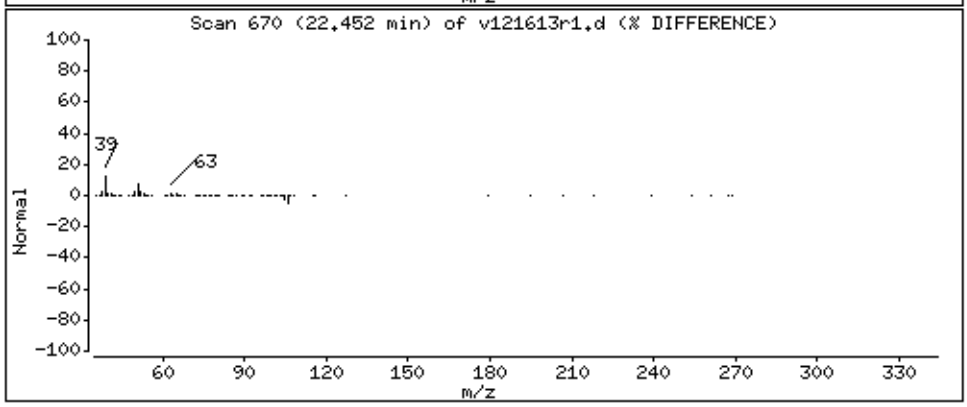
96 m,p-Xylene

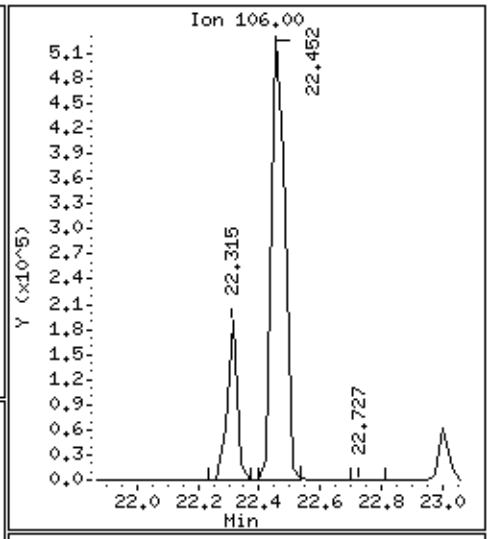
Concentration: 97.842 PPBV

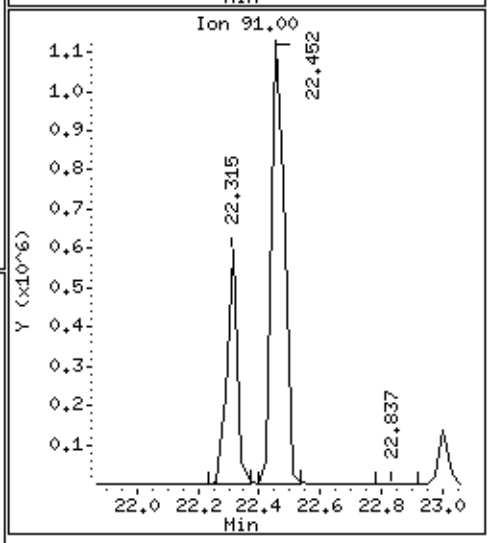


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

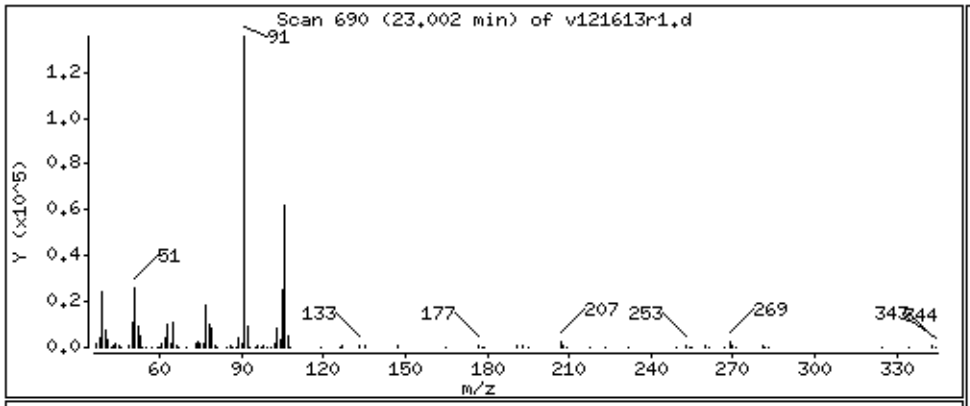
Operator: sn

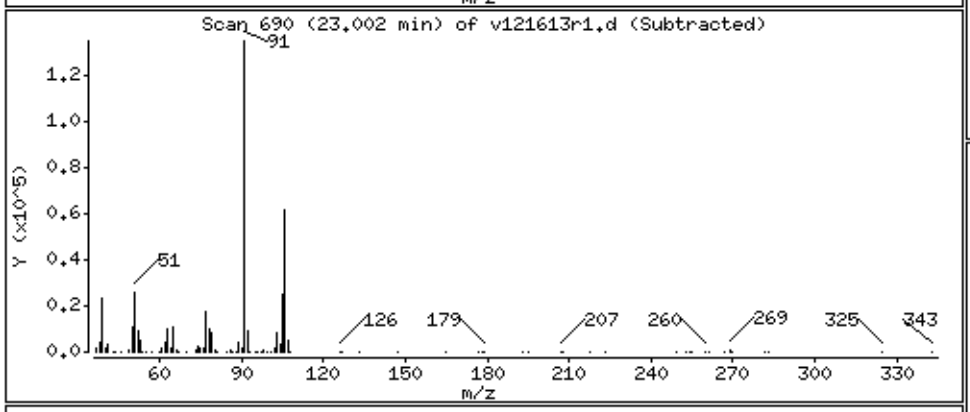
Column phase: RTx-624

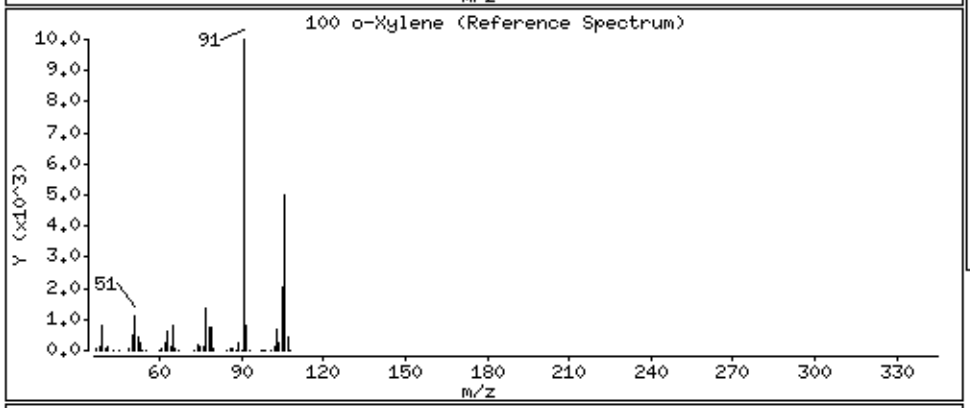
Column diameter: 0.32

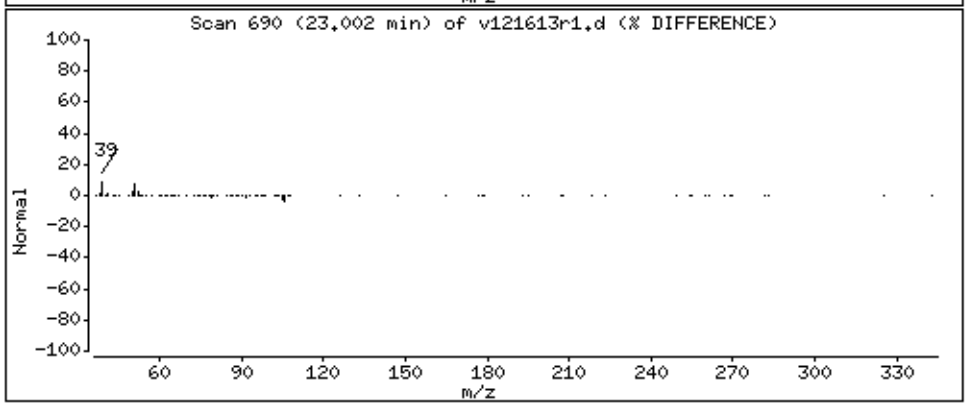
100 o-Xylene

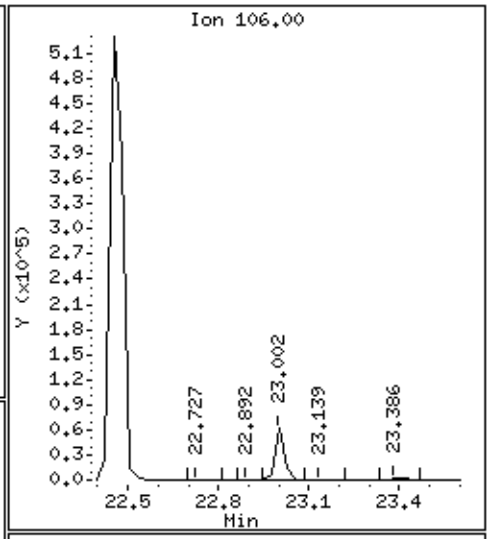
Concentration: 9.166 PPBV

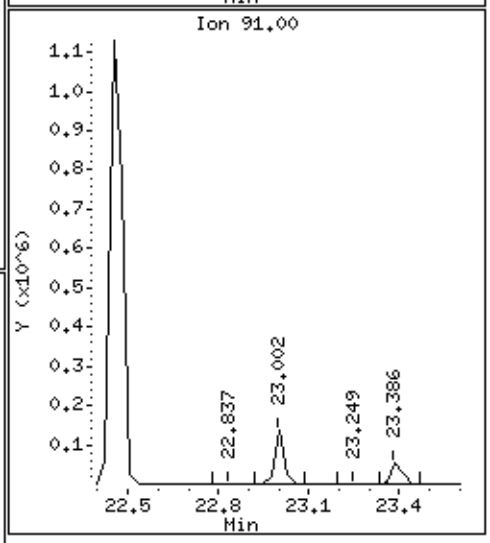


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

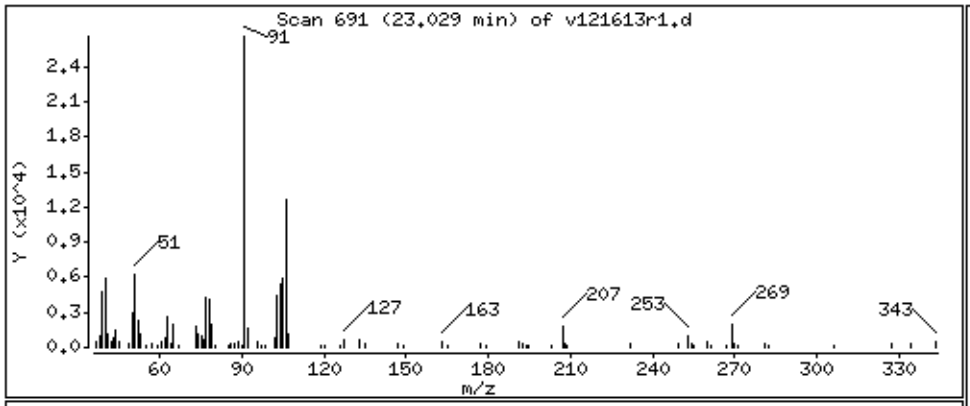
Operator: sn

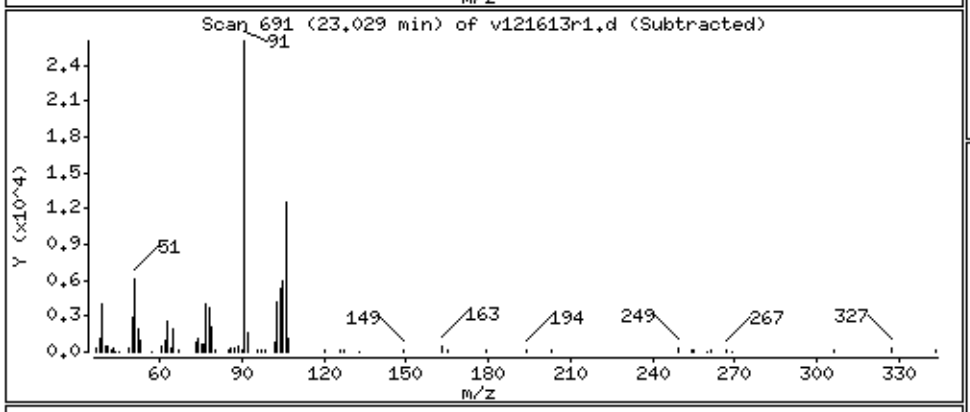
Column phase: RTx-624

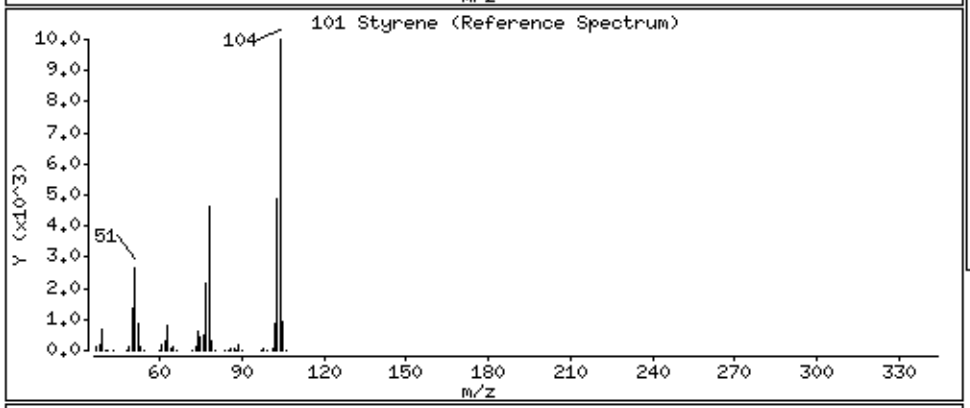
Column diameter: 0.32

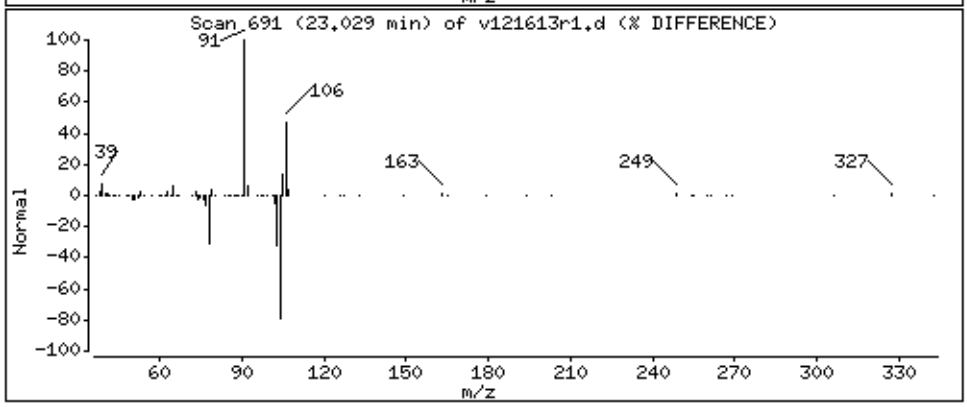
101 Styrene

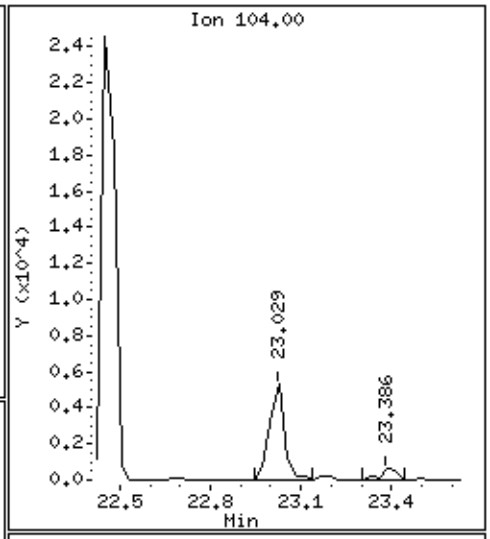
Concentration: 0.8521 PPBV

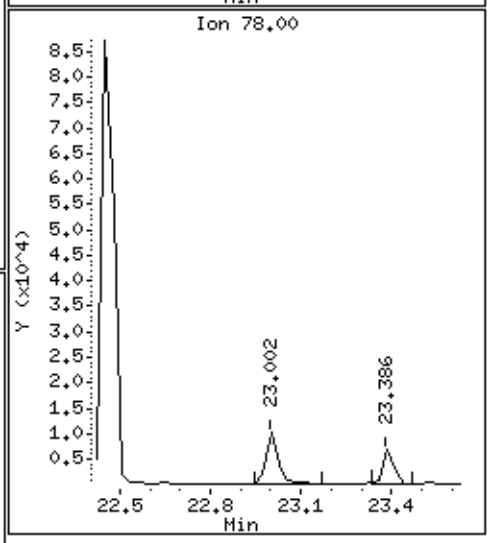


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d

Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

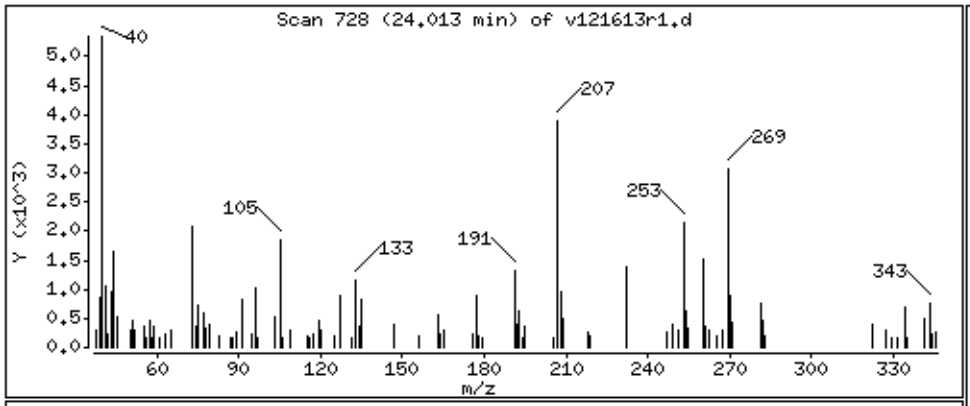
Operator: sn

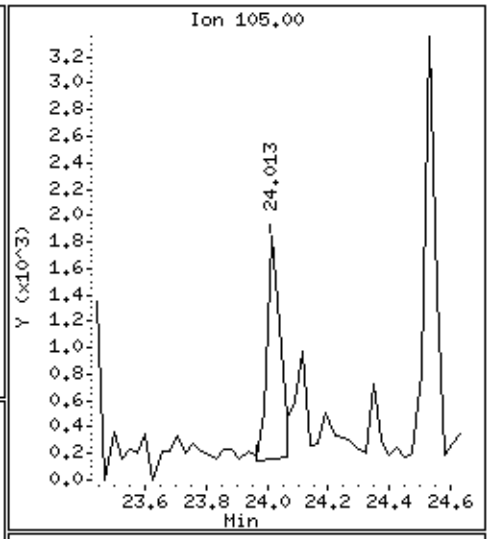
Column phase: RTx-624

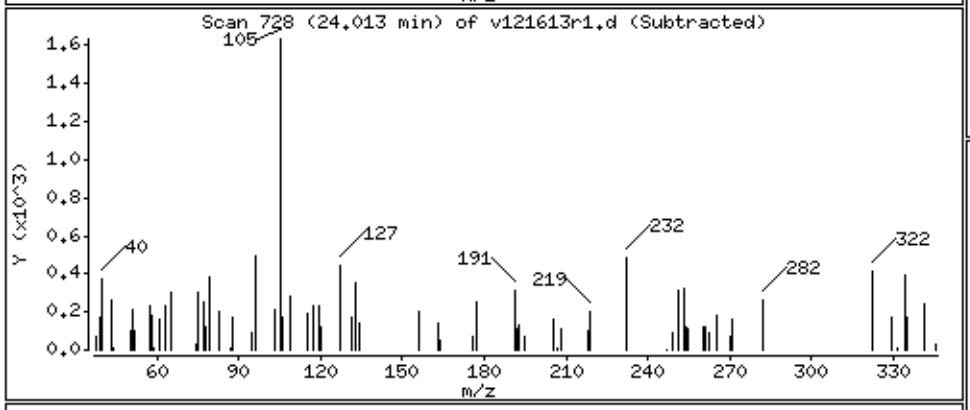
Column diameter: 0.32

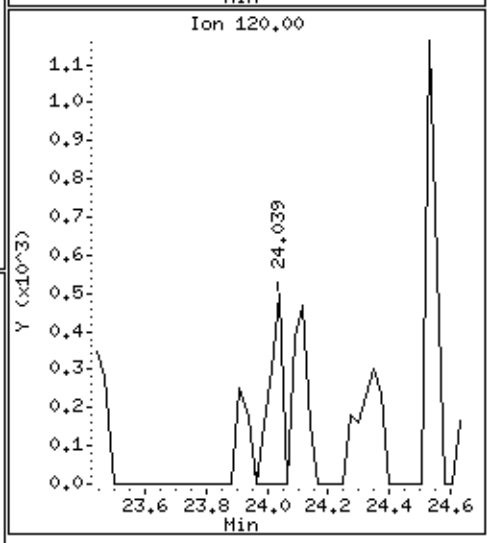
113 4-Ethyltoluene

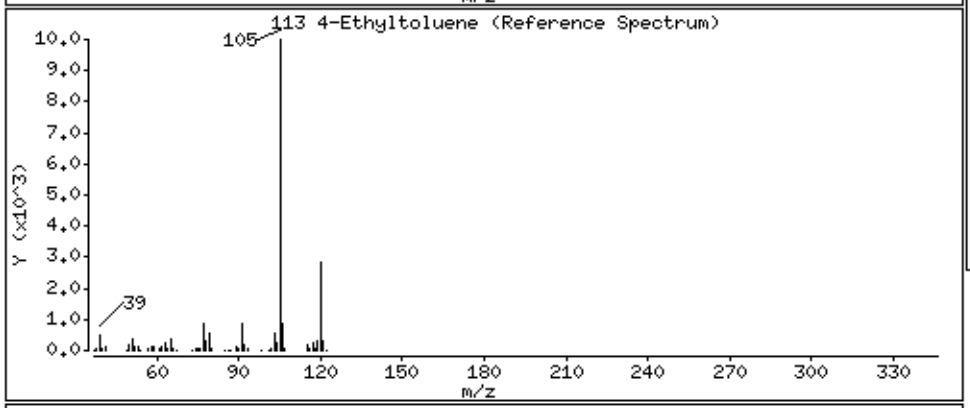
Concentration: 0.1821 PPBV

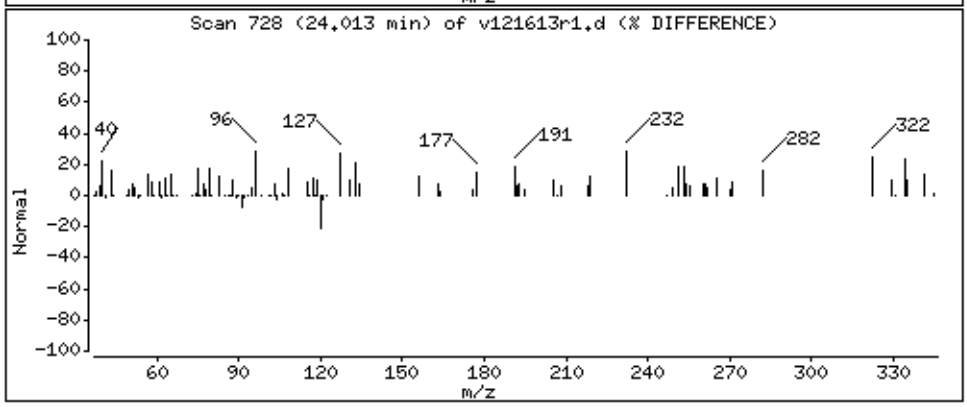


Data File: /chem/msdv.i/16Dec2014.b/v121613r1.d



Date : 16-DEC-2014 16:52

Client ID:

Instrument: msdv.i

Sample Info: 125ml #34450

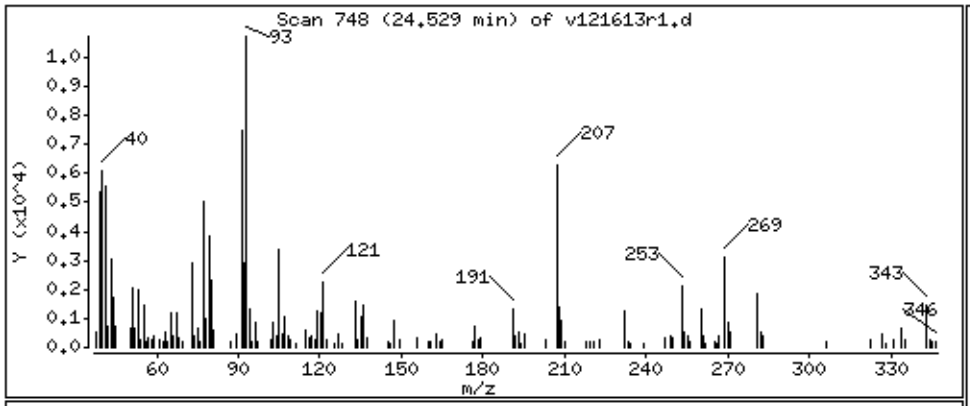
Operator: sn

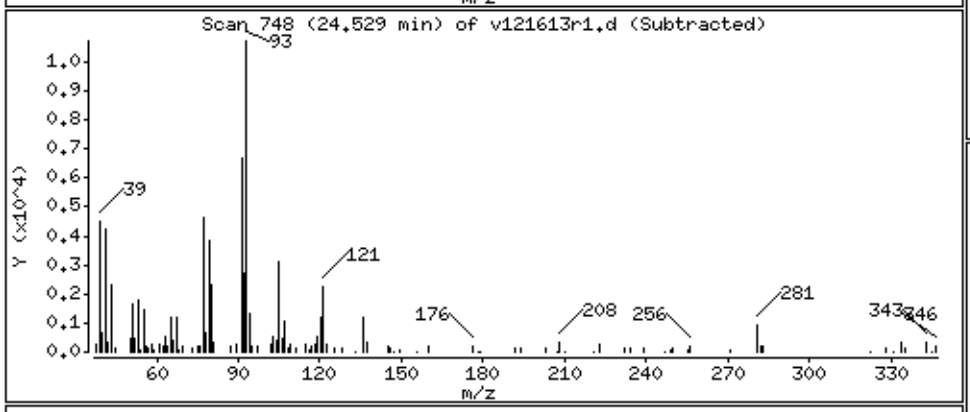
Column phase: RTx-624

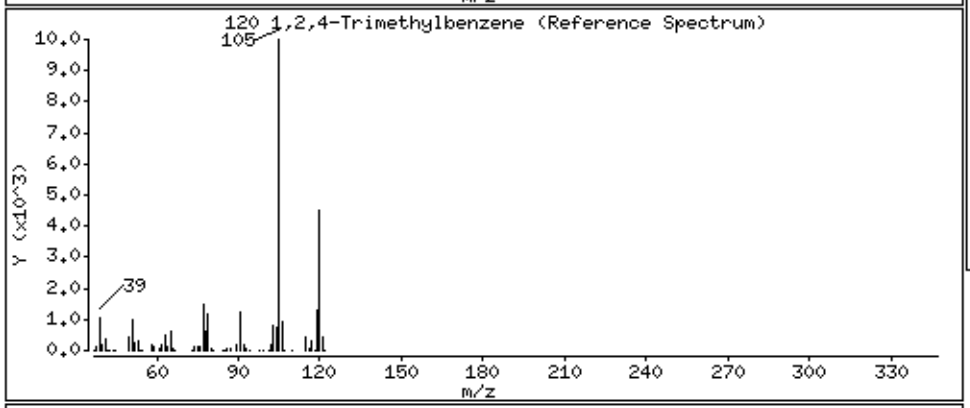
Column diameter: 0.32

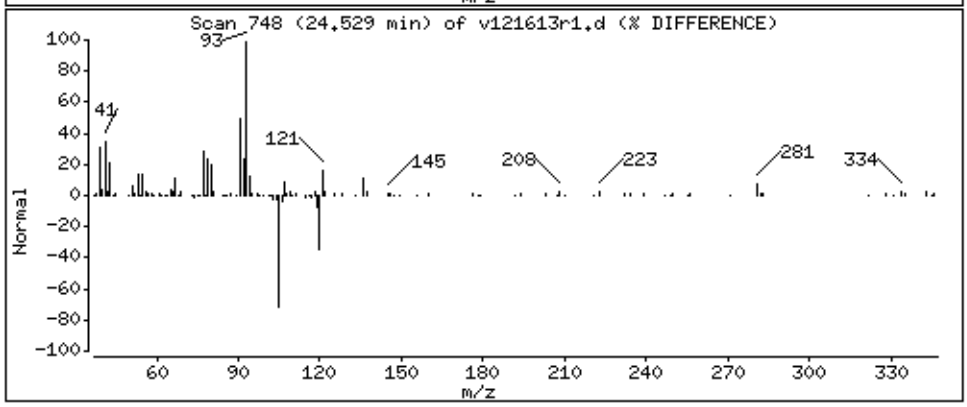
120 1,2,4-Trimethylbenzene

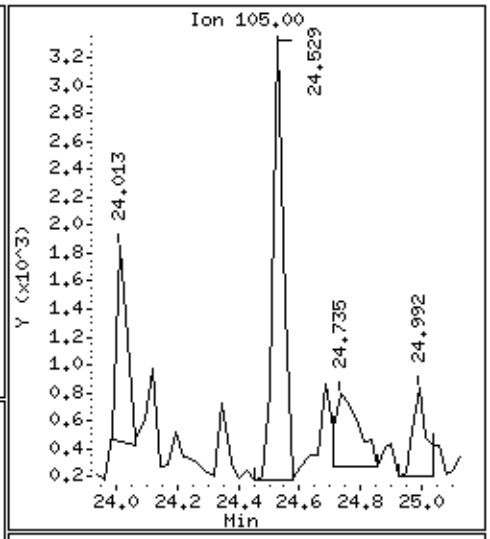
Concentration: 0.4092 PPBV

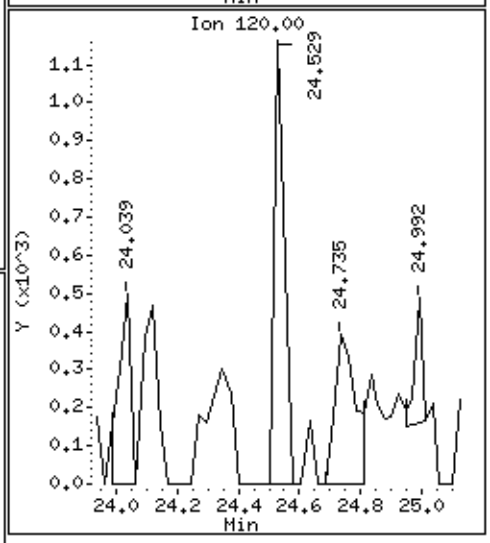


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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: BSIA-11 (2014)**

**Lab ID#: 1412151AR1-04A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.92 | 0.48 J | 4.5 | 2.4 J |
| Chloromethane | 0.92 | 0.84 J | 1.9 | 1.7 J |
| Freon 11 | 0.18 | 0.21 | 1.0 | 1.2 |
| Ethanol | 0.92 | 62 J0 | 1.7 | 120 J0 |
| Freon 113 | 0.18 | 0.046 J | 1.4 | 0.36 J |
| Acetone | 0.92 | 39 | 2.2 | 92 |
| 2-Propanol | 0.92 | 28 | 2.2 | 70 |
| Methylene Chloride | 0.37 | 8.9 | 1.3 | 31 |
| Methyl tert-butyl ether | 0.18 | 0.21 | 0.66 | 0.77 |
| Hexane | 0.18 | 0.17 J | 0.64 | 0.61 J |
| 2-Butanone (Methyl Ethyl Ketone) | 0.92 | 0.70 J | 2.7 | 2.1 J |
| Tetrahydrofuran | 0.92 | 0.59 J | 2.7 | 1.7 J |
| Chloroform | 0.18 | 0.058 J | 0.89 | 0.28 J |
| Carbon Tetrachloride | 0.18 | 0.076 J | 1.2 | 0.48 J |
| 2,2,4-Trimethylpentane | 0.92 | 0.83 J | 4.3 | 3.9 J |
| Benzene | 0.18 | 0.13 J | 0.58 | 0.40 J |
| Heptane | 0.18 | 0.38 | 0.75 | 1.6 |
| 1,4-Dioxane | 0.18 | 0.12 J | 0.66 | 0.43 J |
| 4-Methyl-2-pentanone | 0.18 | 9.0 | 0.75 | 37 |
| Toluene | 0.18 | 19 | 0.69 | 71 |
| Ethyl Benzene | 0.18 | 2.5 | 0.79 | 11 |
| m,p-Xylene | 0.18 | 8.9 | 0.79 | 39 |
| o-Xylene | 0.18 | 1.0 | 0.79 | 4.3 |
| Styrene | 0.18 | 0.15 J | 0.78 | 0.64 J |
| 4-Ethyltoluene | 0.18 | 0.097 J | 0.90 | 0.48 J |
| 1,2,4-Trimethylbenzene | 0.18 | 0.12 J | 0.90 | 0.57 J |

eurofins | Air Toxics

**Client Sample ID: BSIA-11 (2014)**

**Lab ID#: 1412151AR1-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121614r1** | **Date of Collection:** | **12/9/14 10:46:00 AM** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **12/16/14 05:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.92 | 0.48 J | 4.5 | 2.4 J |
| Freon 114 | 0.18 | Not Detected | 1.3 | Not Detected |
| Chloromethane | 0.92 | 0.84 J | 1.9 | 1.7 J |
| Vinyl Chloride | 0.18 | Not Detected | 0.47 | Not Detected |
| 1,3-Butadiene | 0.18 | Not Detected | 0.40 | Not Detected |
| Bromomethane | 0.92 | Not Detected | 3.6 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| Freon 11 | 0.18 | 0.21 | 1.0 | 1.2 |
| Ethanol | 0.92 | 62 J0 | 1.7 | 120 J0 |
| Freon 113 | 0.18 | 0.046 J | 1.4 | 0.36 J |
| 1,1-Dichloroethene | 0.18 | Not Detected | 0.72 | Not Detected |
| Acetone | 0.92 | 39 | 2.2 | 92 |
| 2-Propanol | 0.92 | 28 | 2.2 | 70 |
| Carbon Disulfide | 0.92 | Not Detected | 2.8 | Not Detected |
| 3-Chloropropene | 0.92 | Not Detected | 2.9 | Not Detected |
| Methylene Chloride | 0.37 | 8.9 | 1.3 | 31 |
| Methyl tert-butyl ether | 0.18 | 0.21 | 0.66 | 0.77 |
| trans-1,2-Dichloroethene | 0.18 | Not Detected | 0.72 | Not Detected |
| Hexane | 0.18 | 0.17 J | 0.64 | 0.61 J |
| 1,1-Dichloroethane | 0.18 | Not Detected | 0.74 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.92 | 0.70 J | 2.7 | 2.1 J |
| cis-1,2-Dichloroethene | 0.18 | Not Detected | 0.72 | Not Detected |
| Tetrahydrofuran | 0.92 | 0.59 J | 2.7 | 1.7 J |
| Chloroform | 0.18 | 0.058 J | 0.89 | 0.28 J |
| 1,1,1-Trichloroethane | 0.18 | Not Detected | 1.0 | Not Detected |
| Cyclohexane | 0.18 | Not Detected | 0.63 | Not Detected |
| Carbon Tetrachloride | 0.18 | 0.076 J | 1.2 | 0.48 J |
| 2,2,4-Trimethylpentane | 0.92 | 0.83 J | 4.3 | 3.9 J |
| Benzene | 0.18 | 0.13 J | 0.58 | 0.40 J |
| 1,2-Dichloroethane | 0.18 | Not Detected | 0.74 | Not Detected |
| Heptane | 0.18 | 0.38 | 0.75 | 1.6 |
| Trichloroethene | 0.18 | Not Detected | 0.98 | Not Detected |
| 1,2-Dichloropropane | 0.18 | Not Detected | 0.84 | Not Detected |
| 1,4-Dioxane | 0.18 | 0.12 J | 0.66 | 0.43 J |
| Bromodichloromethane | 0.18 | Not Detected | 1.2 | Not Detected |
| cis-1,3-Dichloropropene | 0.18 | Not Detected | 0.83 | Not Detected |
| 4-Methyl-2-pentanone | 0.18 | 9.0 | 0.75 | 37 |
| Toluene | 0.18 | 19 | 0.69 | 71 |
| trans-1,3-Dichloropropene | 0.18 | Not Detected | 0.83 | Not Detected |
| 1,1,2-Trichloroethane | 0.18 | Not Detected | 1.0 | Not Detected |
| Tetrachloroethene | 0.18 | Not Detected | 1.2 | Not Detected |
| 2-Hexanone | 0.92 | Not Detected | 3.7 | Not Detected |

eurofins | Air Toxics

**Client Sample ID: BSIA-11 (2014)**

**Lab ID#: 1412151AR1-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121614r1** | **Date of Collection:** | **12/9/14 10:46:00 AM** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **12/16/14 05:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.18 | Not Detected | 1.6 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.18 | Not Detected | 1.4 | Not Detected |
| Chlorobenzene | 0.18 | Not Detected | 0.84 | Not Detected |
| Ethyl Benzene | 0.18 | 2.5 | 0.79 | 11 |
| m,p-Xylene | 0.18 | 8.9 | 0.79 | 39 |
| o-Xylene | 0.18 | 1.0 | 0.79 | 4.3 |
| Styrene | 0.18 | 0.15 J | 0.78 | 0.64 J |
| Bromoform | 0.18 | Not Detected | 1.9 | Not Detected |
| Cumene | 0.18 | Not Detected | 0.90 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.18 | Not Detected | 1.2 | Not Detected |
| Propylbenzene | 0.18 | Not Detected | 0.90 | Not Detected |
| 4-Ethyltoluene | 0.18 | 0.097 J | 0.90 | 0.48 J |
| 1,3,5-Trimethylbenzene | 0.18 | Not Detected | 0.90 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.18 | 0.12 J | 0.90 | 0.57 J |
| 1,3-Dichlorobenzene | 0.18 | Not Detected UJ | 1.1 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.18 | Not Detected UJ | 1.1 | Not Detected UJ |
| alpha-Chlorotoluene | 0.92 | Not Detected UJ | 4.7 | Not Detected UJ |
| 1,2-Dichlorobenzene | 0.18 | Not Detected UJ | 1.1 | Not Detected UJ |
| 1,2,4-Trichlorobenzene | 0.92 | Not Detected | 6.8 | Not Detected |
| Hexachlorobutadiene | 0.92 | Not Detected UJ | 9.8 | Not Detected UJ |
| Naphthalene | 0.92 | Not Detected | 4.8 | Not Detected |

J = Estimated value.
J0 = Estimated value due to bias in the CCV.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: 6 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 106 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121614r1.d
Lab Smp Id: 1412151AR1-04A
Inj Date : 16-DEC-2014 17:37
Operator : sn Inst ID: msdv.i
Smp Info : 250ml #1651
Misc Info : 8.0"Hg -> 5.0psi
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT | (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.933 | (1.000) | 130 | 90394 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.933 | (1.000) | 128 | 72576 | | | 47.55- 107.55 | 80.29 |
| 15.934 | 15.933 | (1.000) | 49 | 235582 | | | 213.64- 273.64 | 260.62 |
| * 71 1,4-Difluorobenzene | | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 | (1.000) | 114 | 414182 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 | (1.000) | 88 | 73439 | | | 0.00- 46.17 | 17.73 |
| * 92 Chlorobenzene-d5 | | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 | (1.000) | 117 | 336239 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 | (1.000) | 82 | 207057 | | | 28.56- 88.56 | 61.58 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 | (1.052) | 65 | 186548 | 5.62319 | 5.623 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 | (1.052) | 67 | 93071 | | | 28.37- 88.37 | 49.89 |
| $ 80 Toluene-d8 | | | | | | | CAS #: 2037-26-5 | |
| 19.856 | 19.879 | (1.147) | 98 | 423725 | 5.32106 | 5.321 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 | (1.147) | 70 | 51350 | | | 0.00- 41.90 | 12.12 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    267459                    34.60-  94.60    63.12
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    140762 4.86793    4.868  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    203323                  113.85- 173.85   144.44
 23.704  23.704 (1.067)   176    136486                   68.89- 128.89    96.96
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85     22189 0.26201   0.4795  80.00- 120.00   100.00(a)
  5.164   5.202 (0.324)    87      6445                    1.57-  61.57    29.05
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.128   7.052 (0.447)    50     23345 0.45742   0.8371  80.00- 120.00   100.00
  7.090   7.052 (0.445)    52      7803                    1.81-  61.81    33.42
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.184  11.183 (0.702)   101     10114 0.11602   0.2123  80.00- 120.00   100.00
 11.184  11.183 (0.702)   103      6674                   34.11-  94.11    65.99
-------------------------------------------------------------------------------
   24 Ethanol                                       CAS #: 64-17-5
 12.102  12.101 (0.760)    45    624180 33.7771   61.812  80.00- 120.00   100.00
 12.102  12.101 (0.760)    46    244179                    8.51-  68.51    39.12
 12.102  12.101 (0.760)    43    131966                    0.00-  54.10    21.14
-------------------------------------------------------------------------------
   28 Freon 113                                     CAS #: 76-13-1
 12.596  12.568 (0.791)   151      1334 0.02542  0.04652  80.00- 120.00   100.00(a)
 12.596  12.568 (0.791)   153      1100                   33.65-  93.65    82.46
 12.569  12.568 (0.789)   101      2549                   96.37- 156.37   191.08
-------------------------------------------------------------------------------
   31 Acetone                                       CAS #: 67-64-1
 12.816  12.816 (0.804)    58    453848 21.2503   38.888  80.00- 120.00   100.00
 12.816  12.816 (0.804)    43   2068108                  413.15- 473.15   455.68
-------------------------------------------------------------------------------
   34 2-Propanol                                    CAS #: 67-63-0
 13.173  13.173 (0.827)    45   1539261 15.5642   28.482  80.00- 120.00   100.00
 13.173  13.173 (0.827)    43    306266                    0.00-  50.74    19.90
 13.173  13.173 (0.827)    59     43562                    0.00-  32.83     2.83
-------------------------------------------------------------------------------
   37 Methylene Chloride                            CAS #: 75-09-2
 13.640  13.640 (0.856)    84    133469 4.85676    8.888  80.00- 120.00   100.00
 13.640  13.640 (0.856)    49    319920                  212.37- 272.37   239.70
 13.640  13.640 (0.856)    51     93885                   43.31- 103.31    70.34
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.997  13.996 (0.878)    73     11463 0.11626   0.2128  80.00- 120.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 39 MTBE (continued) | | | | | | | |
| 13.942 | 13.996 (0.875) | 57 | 9439 | | | 2.99- 62.99 | 82.34 |
| 13.942 | 13.996 (0.875) | 41 | 13657 | | | 12.12- 72.12 | 119.14 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 7499 | 0.09505 | 0.1739 | 80.00- 120.00 | 100.00(a) |
| 14.408 | 14.381 (0.904) | 43 | 13583 | | | 57.65- 117.65 | 181.13 |
| 14.381 | 14.381 (0.903) | 86 | 922 | | | 0.00- 40.67 | 12.29 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.571 (0.979) | 72 | 6076 | 0.38223 | 0.6995 | 80.00- 120.00 | 100.00(a) |
| 15.592 | 15.571 (0.979) | 43 | 53221 | | | 794.80- 854.80 | 875.92 |
| 15.592 | 15.571 (0.979) | 57 | 2380 | | | 18.01- 78.01 | 39.17 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.934 | 15.933 (1.000) | 42 | 26321 | 0.32132 | 0.5880 | 80.00- 120.00 | 100.00(a) |
| 15.934 | 15.933 (1.000) | 71 | 3856 | | | 0.00- 49.03 | 14.65 |
| 15.934 | 15.933 (1.000) | 72 | 5139 | | | 0.00- 51.35 | 19.52 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 2419 | 0.03175 | 0.05811 | 80.00- 120.00 | 100.00(a) |
| 16.026 | 15.995 (1.006) | 85 | 1418 | | | 33.33- 93.33 | 58.62 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.458 | 16.457 (1.033) | 119 | 3157 | 0.04137 | 0.07572 | 80.00- 120.00 | 100.00(a) |
| 16.427 | 16.457 (1.031) | 117 | 4342 | | | 69.67- 129.67 | 137.54 |
| Sum of Peak Concentrations = 0.07572 | | | | | | | |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 38027 | 0.45545 | 0.8335 | 80.00- 120.00 | 100.00(a) |
| 16.728 | 16.728 (1.050) | 57 | 112837 | | | 258.69- 318.69 | 296.73 |
| 16.728 | 16.728 (1.050) | 41 | 42109 | | | 79.91- 139.91 | 110.73 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 8413 | 0.06883 | 0.1260 | 80.00- 120.00 | 100.00(a) |
| 16.783 | 16.756 (0.970) | 77 | 2566 | | | 0.00- 53.73 | 30.50 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.948 (0.981) | 57 | 11085 | 0.21043 | 0.3851 | 80.00- 120.00 | 100.00 |
| 16.975 | 16.948 (0.981) | 100 | 2144 | | | 0.00- 51.27 | 19.34 |
| 16.975 | 16.948 (0.981) | 43 | 30954 | | | 235.24- 295.24 | 279.24 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.266 (1.056) | 88 | 1832 | 0.06502 | 0.1190 | 80.00- 120.00 | 100.00(a) |
| 18.266 | 18.266 (1.056) | 58 | 3651 | | | 72.13- 132.13 | 199.29 |
| 18.293 | 18.266 (1.057) | 57 | 3089 | | | 4.41- 64.41 | 168.61 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.588 | 19.587 (1.132) | 43 | 852534 | 4.94155 | 9.043 | 80.00- 120.00 | 100.00 |
| 19.588 | 19.587 (1.132) | 58 | 219183 | | | 0.00- 57.24 | 25.71 |
| 19.588 | 19.587 (1.132) | 85 | 70368 | | | 0.00- 38.20 | 8.25 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 1386120 | 10.2739 | 18.801 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 804570 | | | 28.60- 88.60 | 58.04 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 67210 | 1.35614 | 2.482 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 222775 | | | 292.36- 352.36 | 331.46 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 238904 | 4.88867 | 8.946 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 509379 | | | 164.15- 224.15 | 213.21 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.002 | 23.001 (1.036) | 106 | 24728 | 0.54379 | 0.9951 | 80.00- 120.00 | 100.00 |
| 23.002 | 23.001 (1.036) | 91 | 50110 | | | 186.63- 246.63 | 202.64 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 5481 | 0.08239 | 0.1508 | 80.00- 120.00 | 100.00(a) |
| 23.002 | 23.029 (1.036) | 78 | 8119 | | | 28.70- 88.70 | 148.13 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.013 | 24.039 (1.081) | 105 | 4565 | 0.05283 | 0.09668 | 80.00- 120.00 | 100.00(a) |
| 24.013 | 24.039 (1.081) | 120 | 1378 | | | 0.18- 60.18 | 30.19 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 3729 | 0.06381 | 0.1168 | 80.00- 120.00 | 100.00(a) |
| 24.529 | 24.529 (1.105) | 120 | 1708 | | | 19.27- 79.27 | 45.80 |

## QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121614r1.d
Lab Smp Id: 1412151AR1-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 8.0"Hg -> 5.0psi

Calibration Date: 16-DEC-2014
Calibration Time: 08:42

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 90394 | -17.62 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 414182 | -7.03 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 336239 | -6.88 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1412151AR1-04A
Level: LOW
Operator: sn
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 8.0"Hg -> 5.0psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.623 | 112.46 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.321 | 106.42 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.868 | 97.36 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

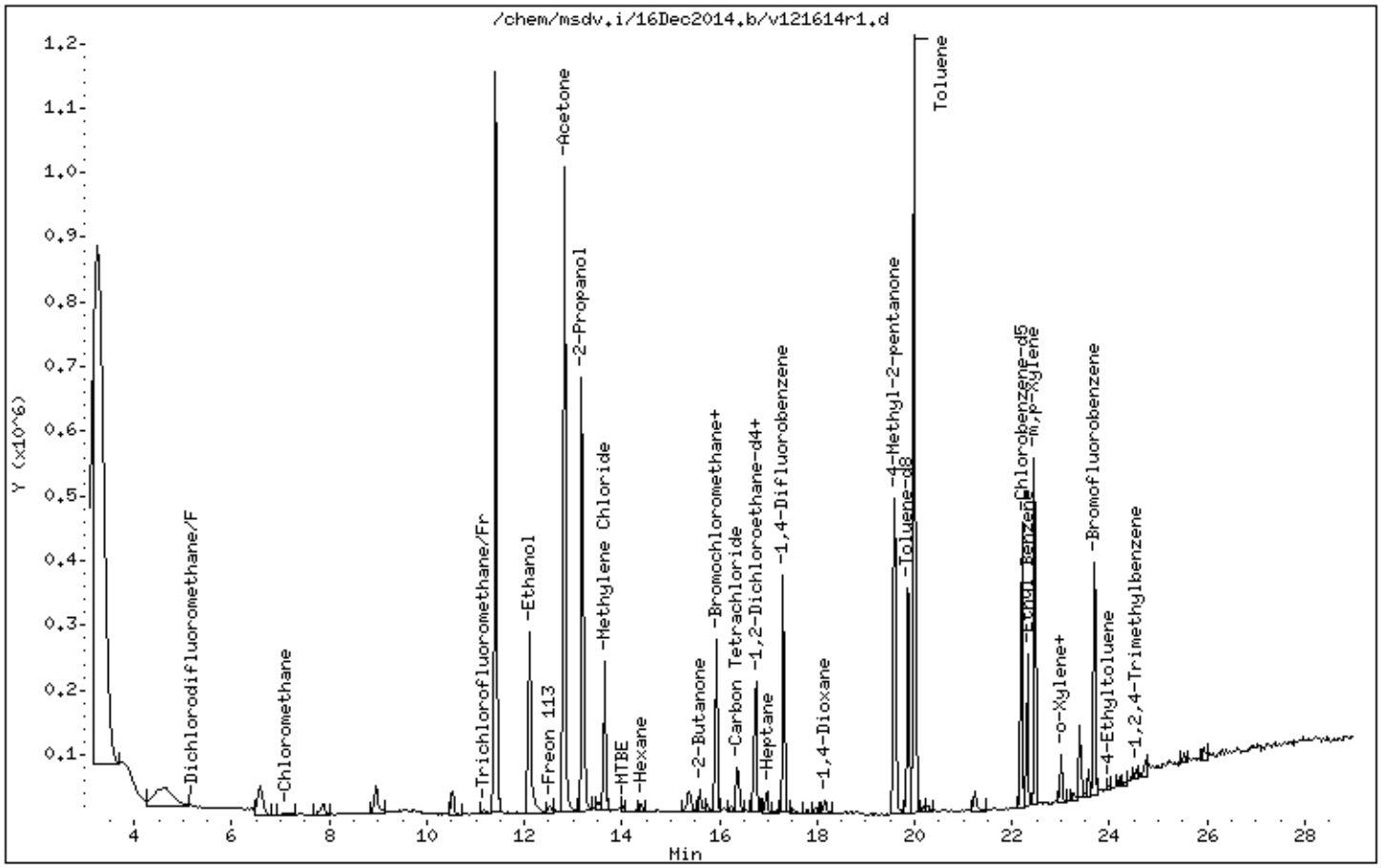
Instrument: msdv.i

Sample Info: 250ml #1651

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

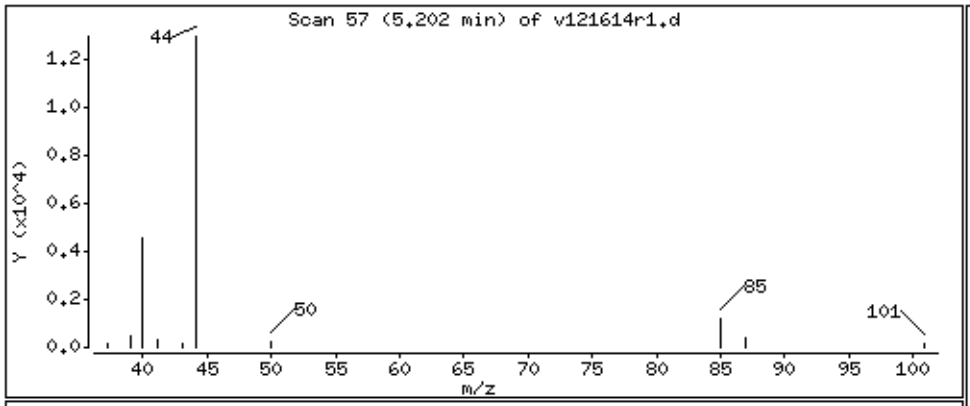
Operator: sn

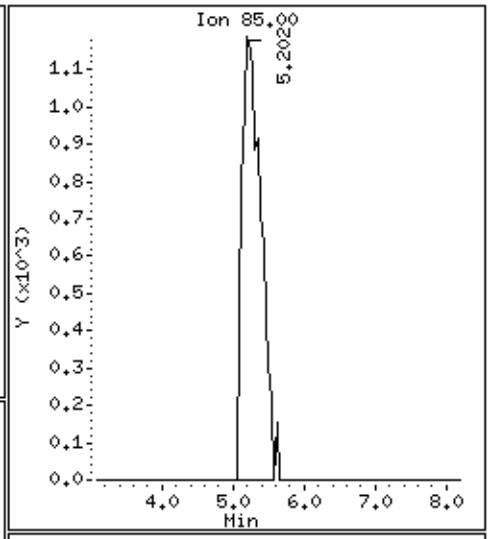
Column phase: RTx-624

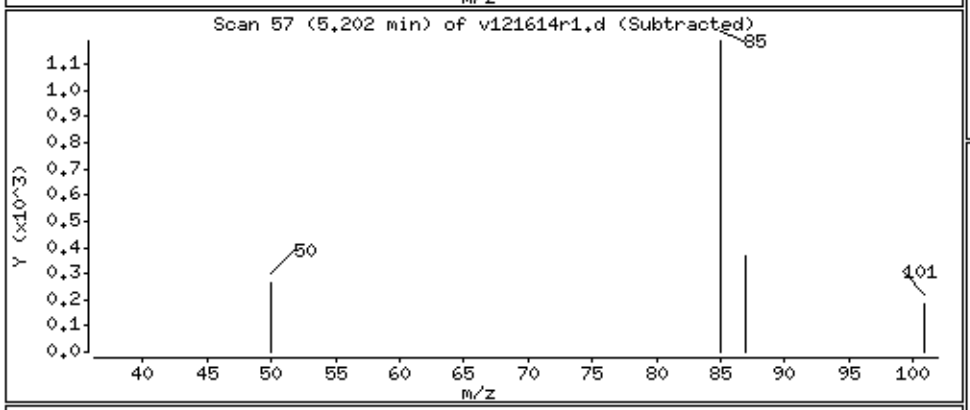
Column diameter: 0.32

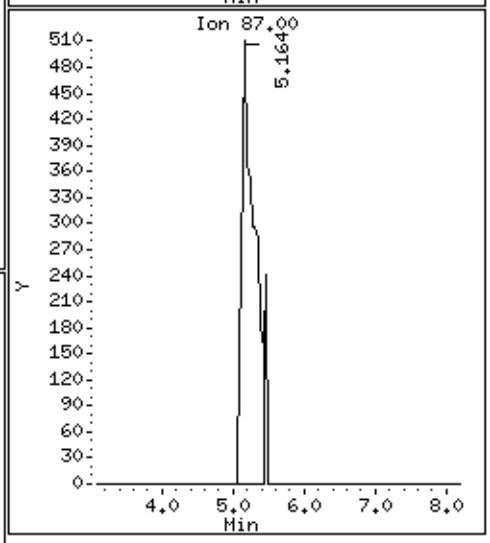
4 Dichlorodifluoromethane/Fr12

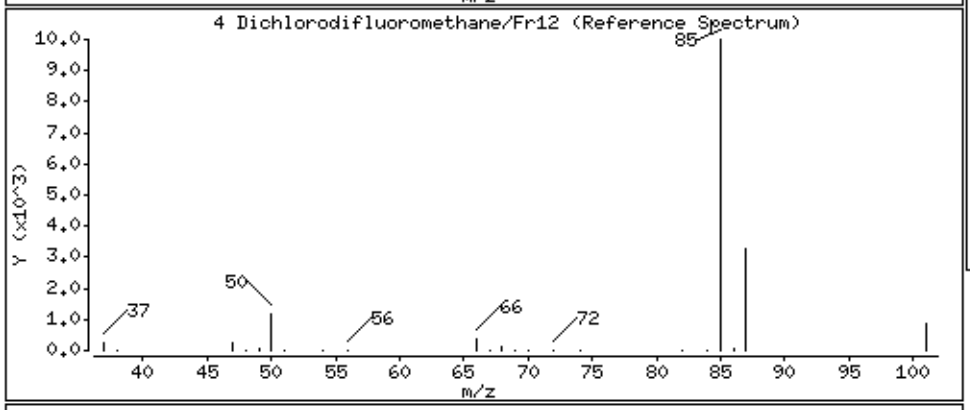
Concentration: 0.4795 PPBV

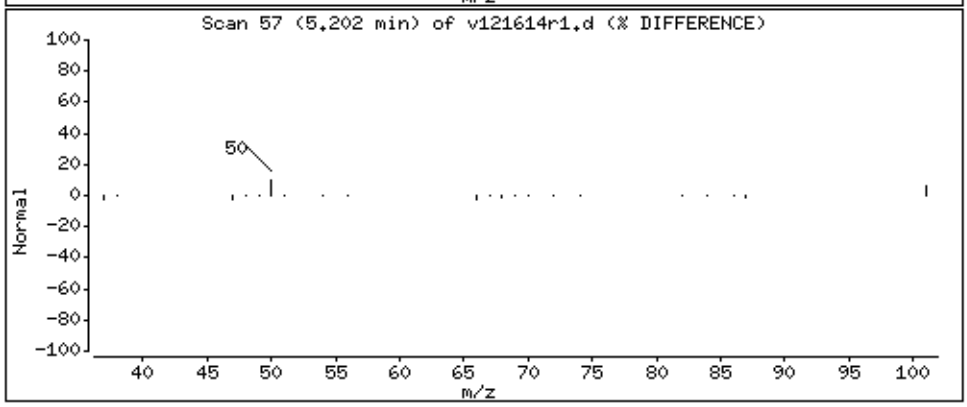


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

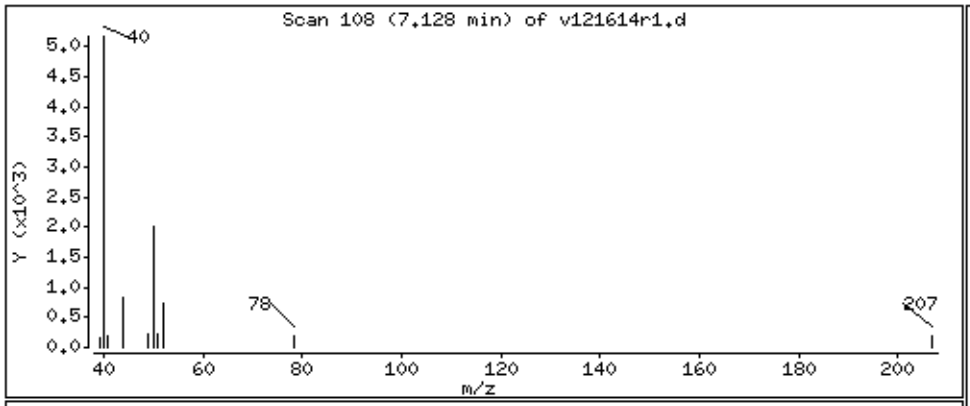
Operator: sn

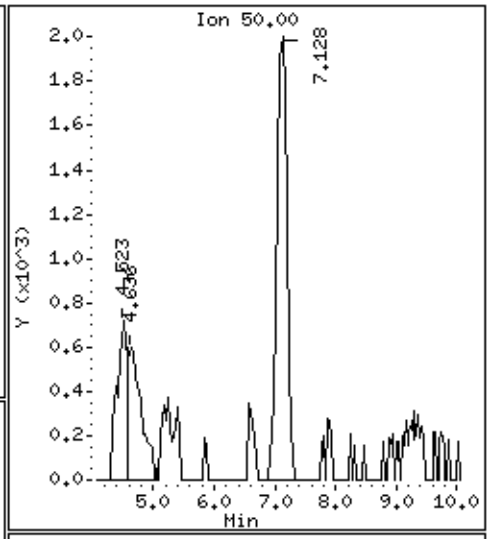
Column phase: RTx-624

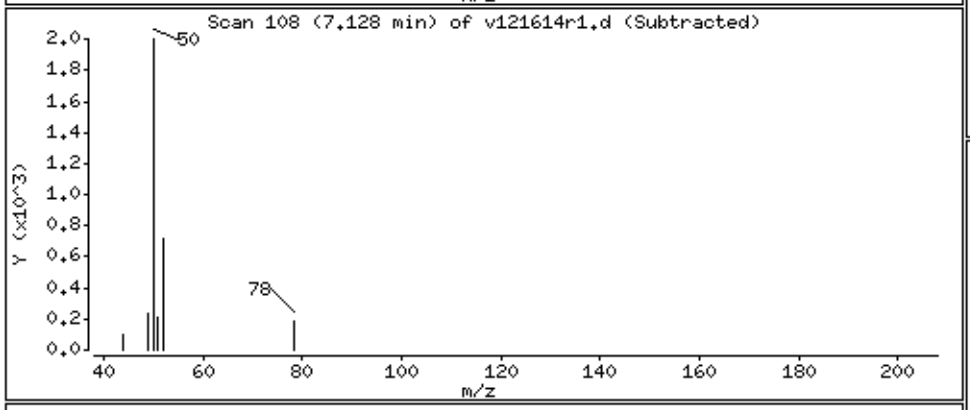
Column diameter: 0.32

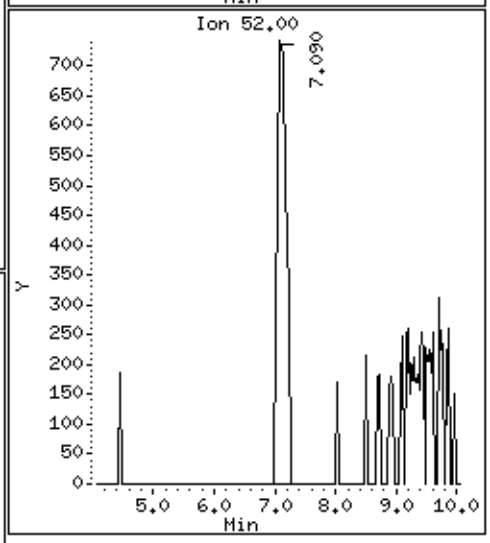
8 Chloromethane

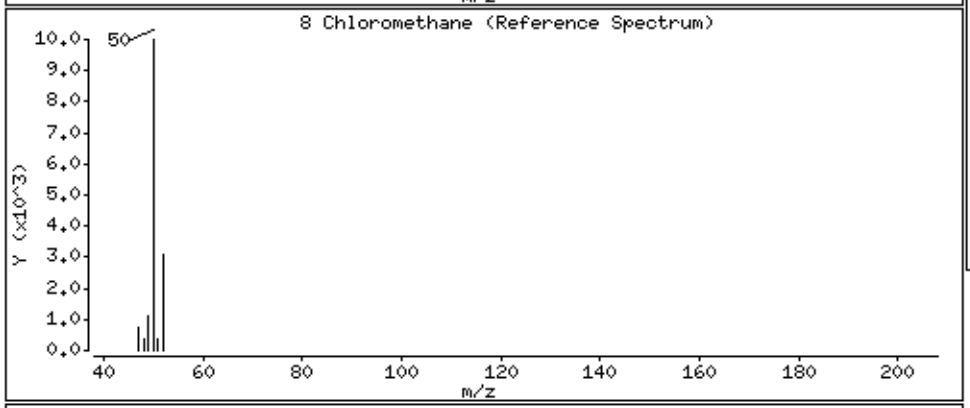
Concentration: 0.8371 PPBV

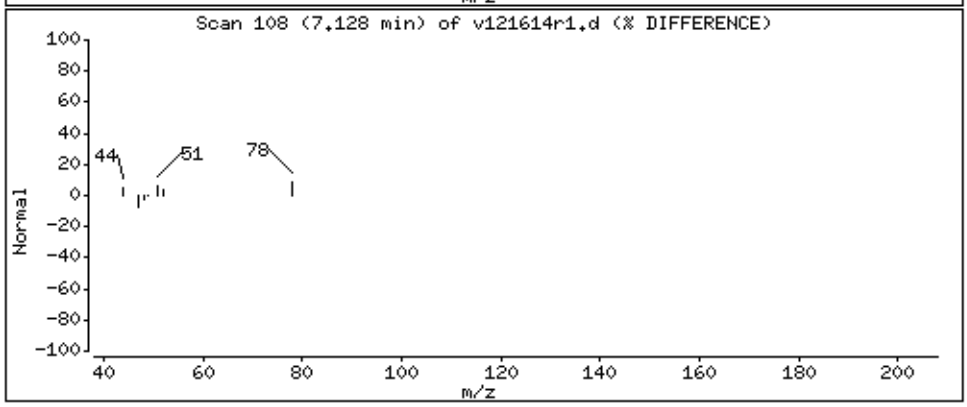


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

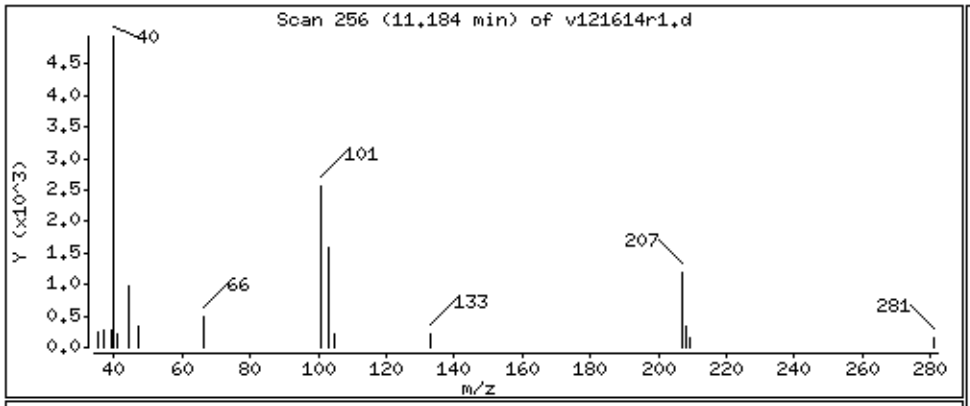
Operator: sn

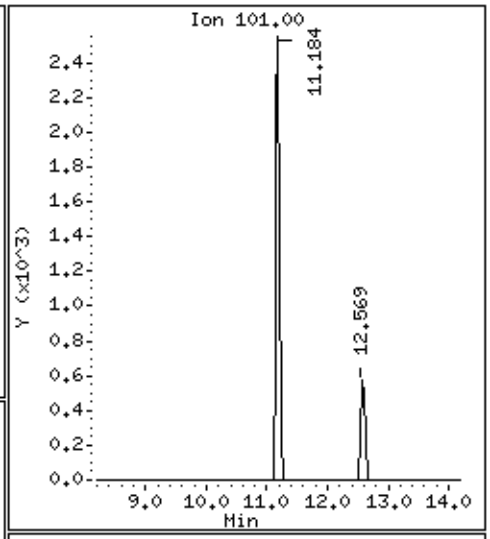
Column phase: RTx-624

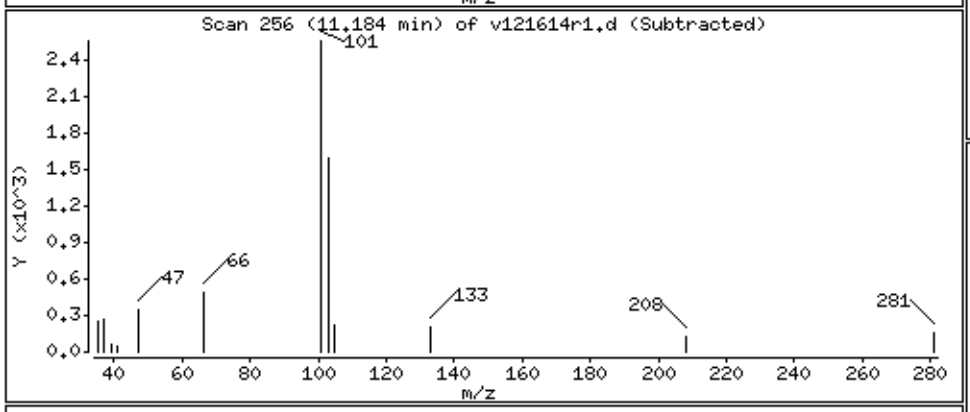
Column diameter: 0.32

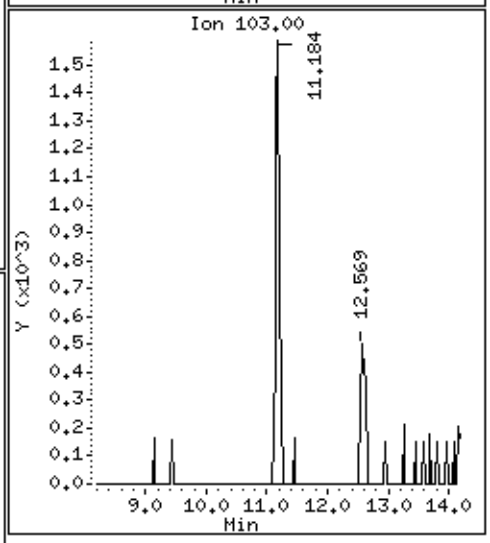
20 Trichlorofluoromethane/Fr11

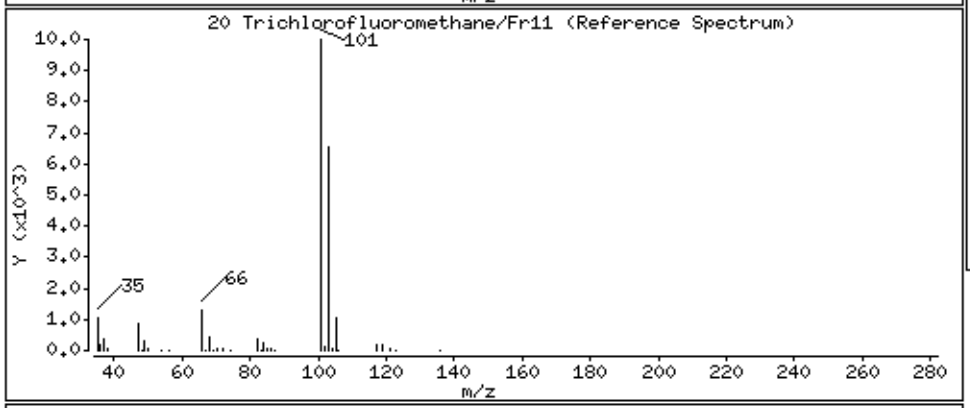
Concentration: 0.2123 PPBV

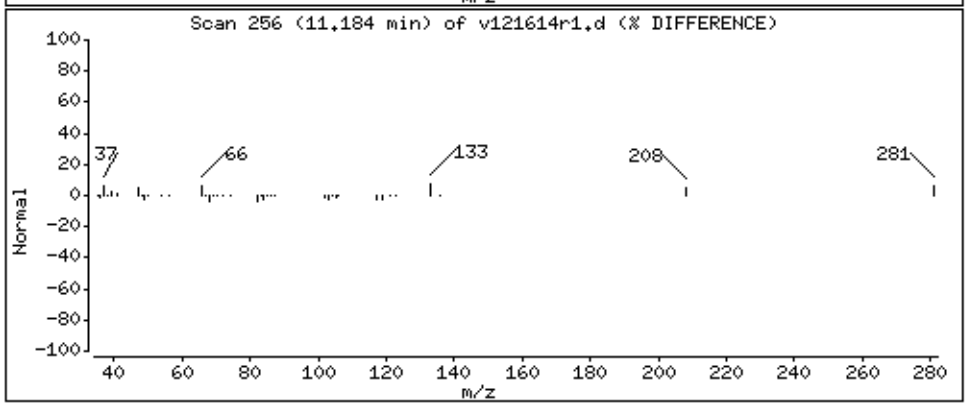


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

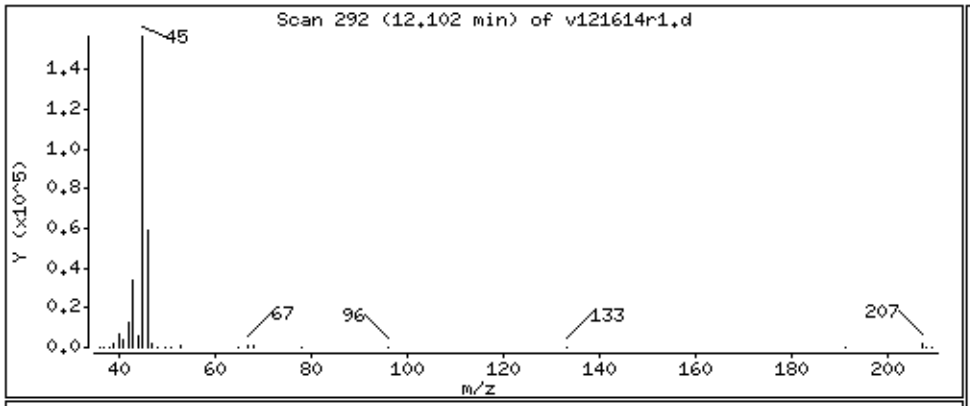
Operator: sn

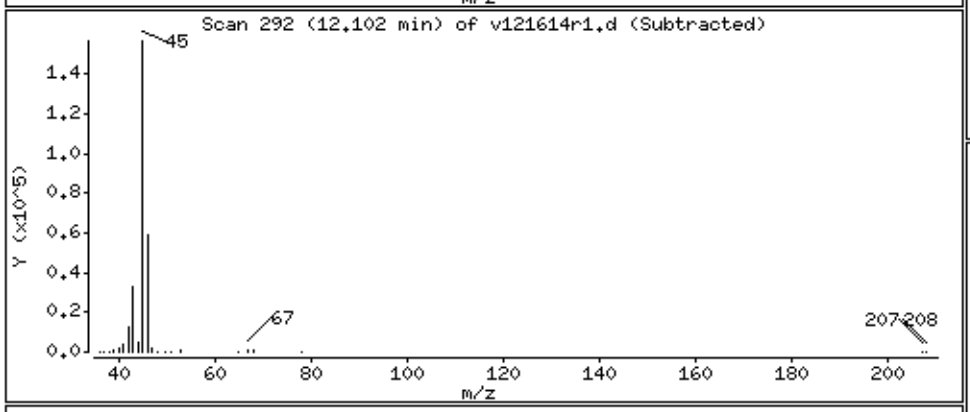
Column phase: RTx-624

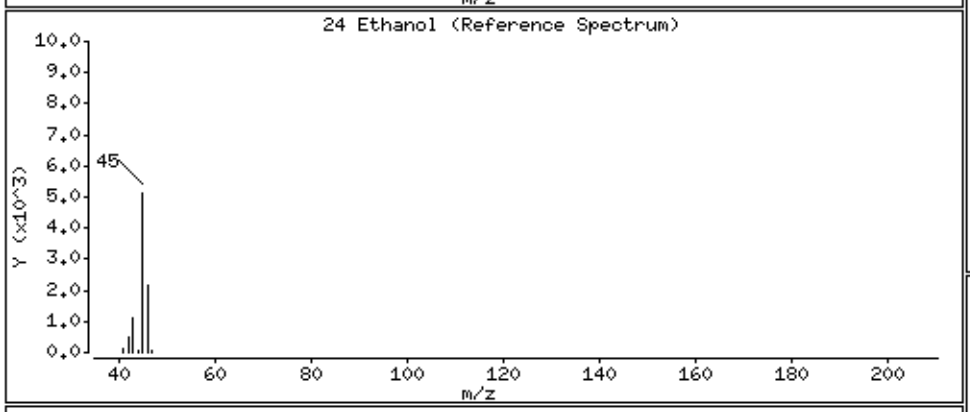
Column diameter: 0.32

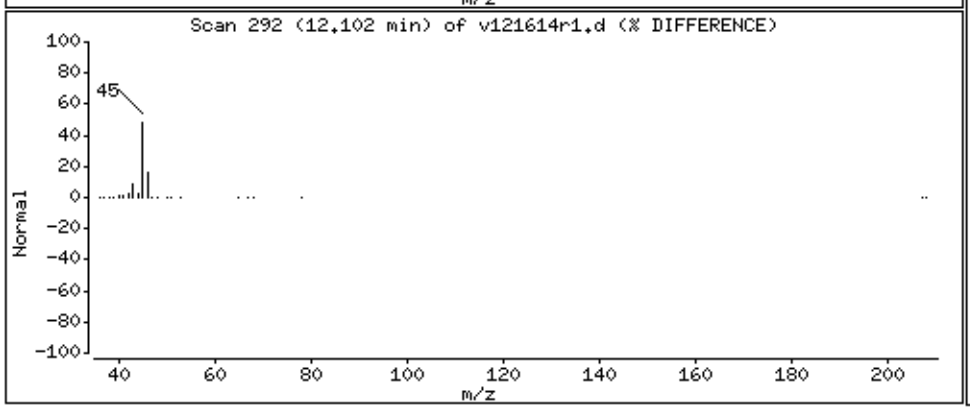
24 Ethanol

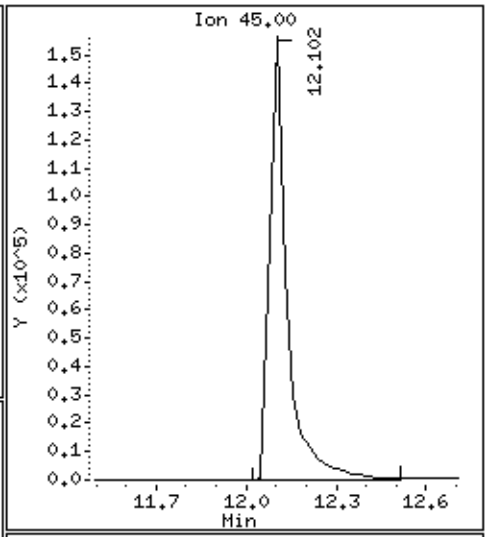
Concentration: 61.812 PPBV

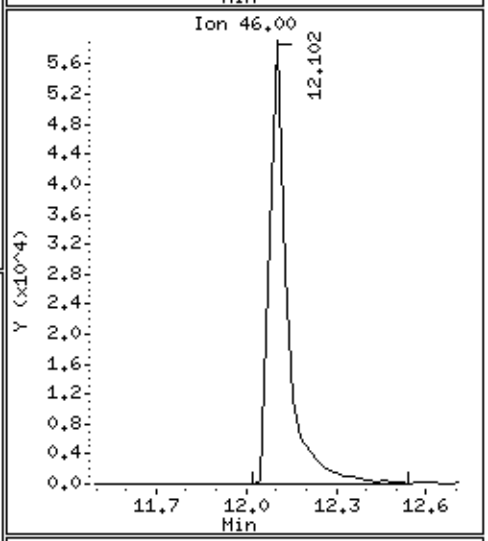


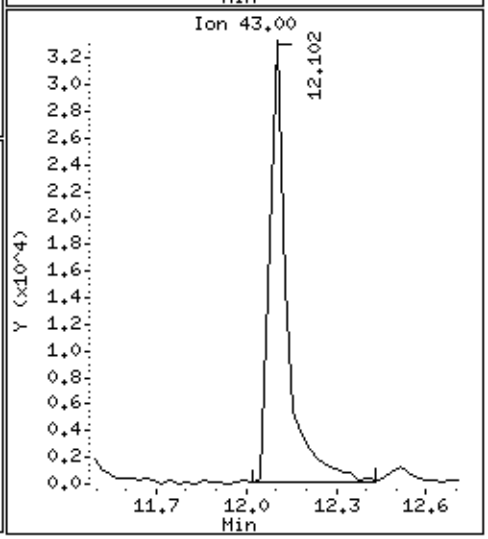



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

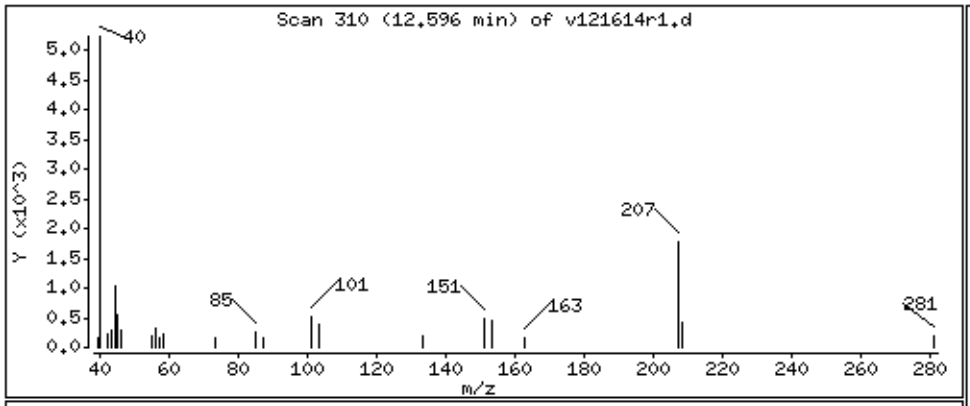
Operator: sn

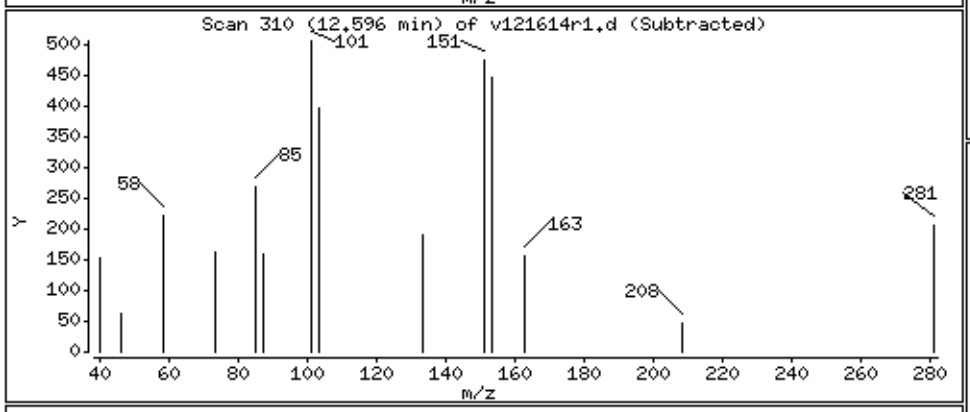
Column phase: RTx-624

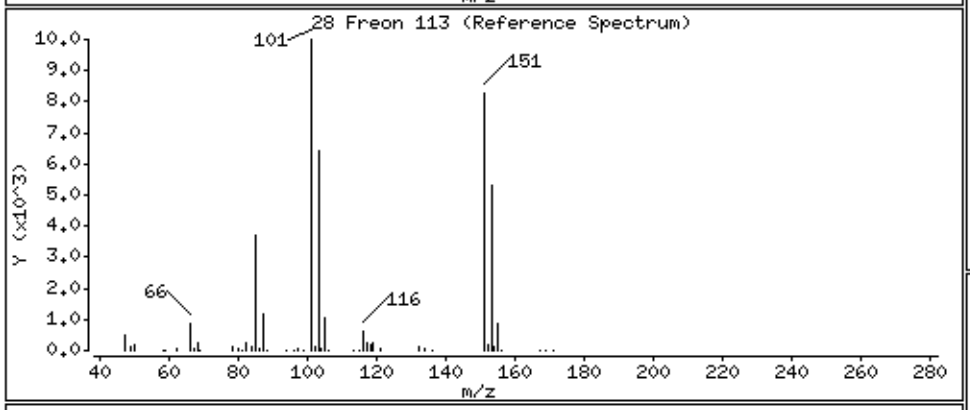
Column diameter: 0.32

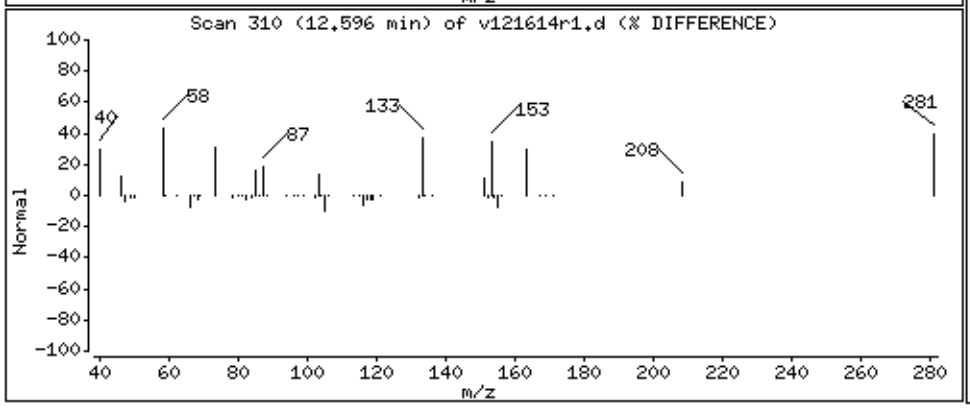
28 Freon 113

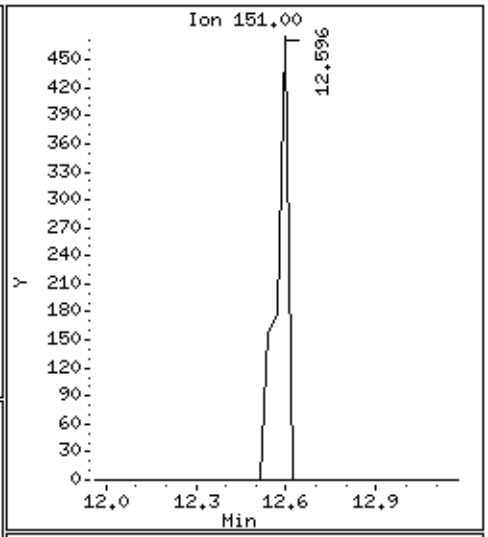
Concentration: 0.04652 PPBV

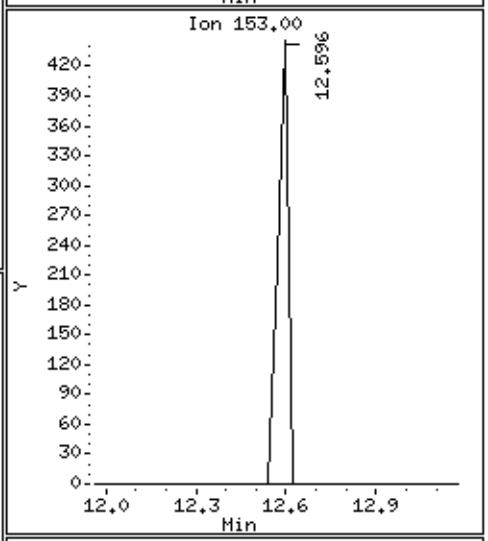


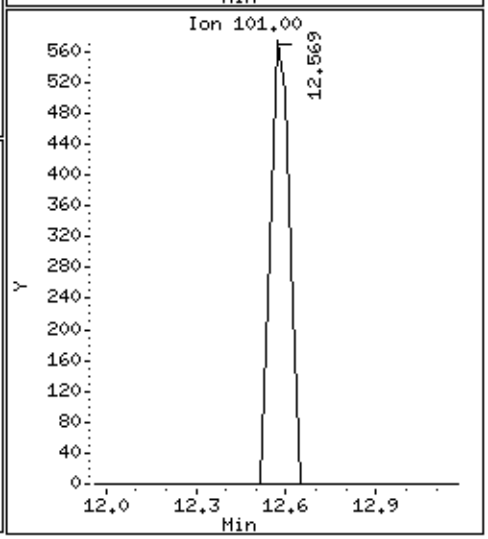



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

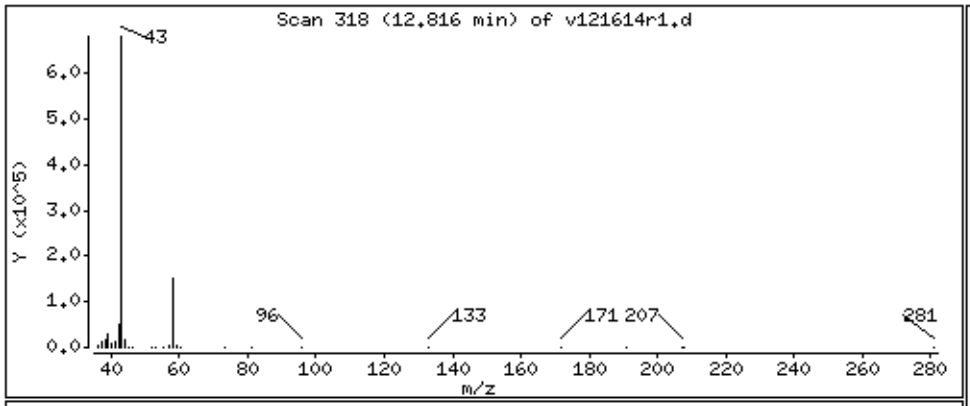
Operator: sn

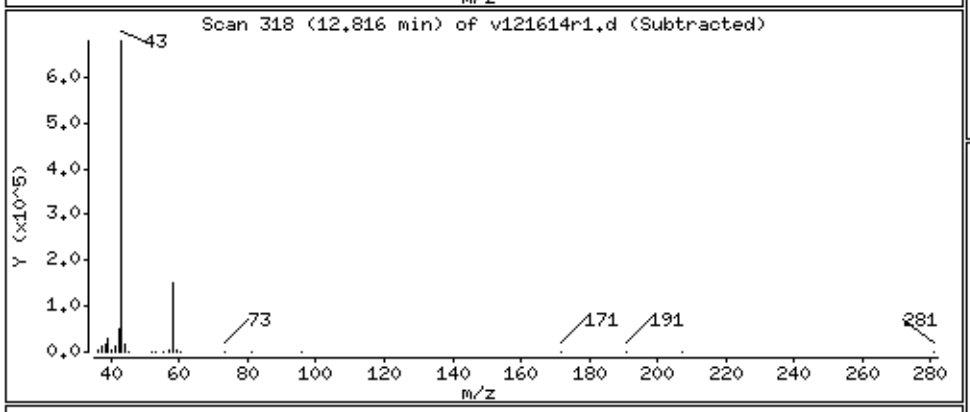
Column phase: RTx-624

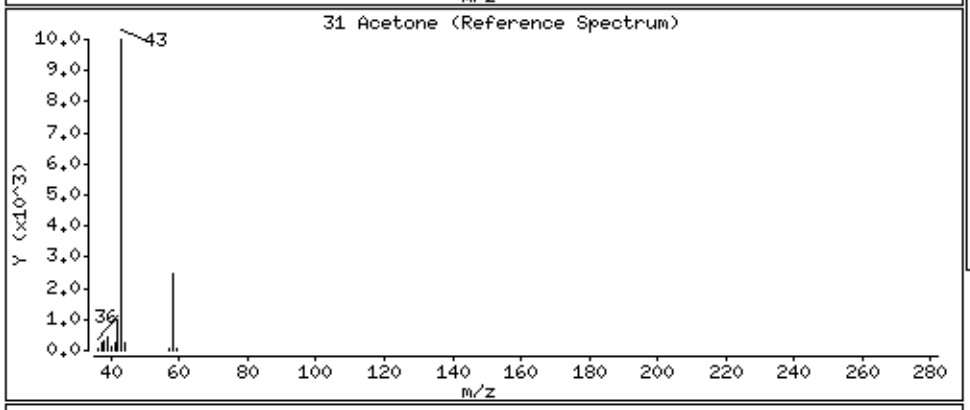
Column diameter: 0.32

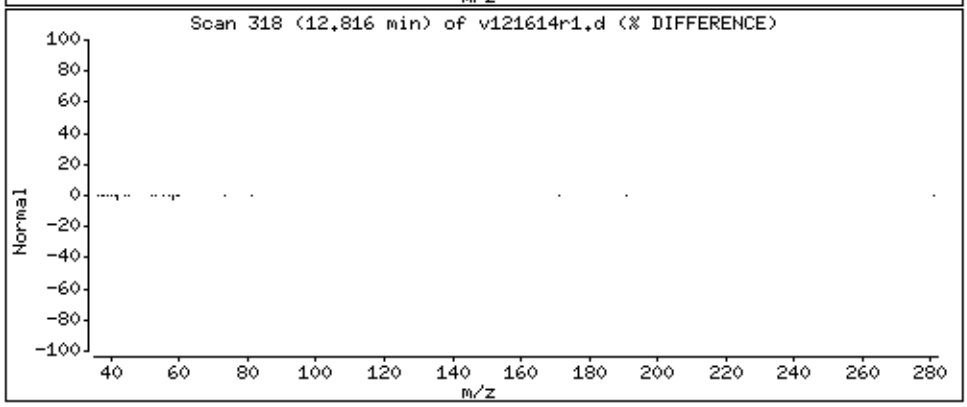
31 Acetone

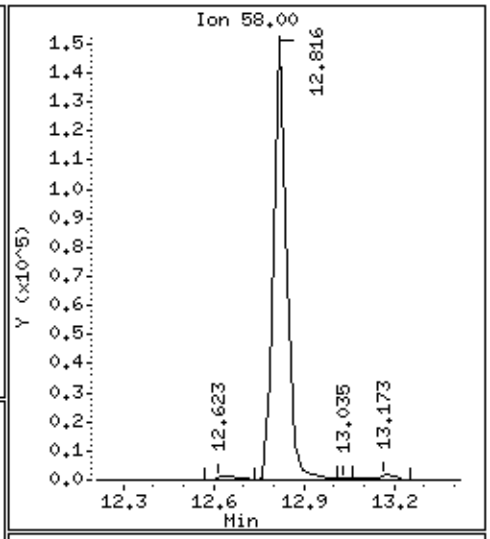
Concentration: 38.888 PPBV

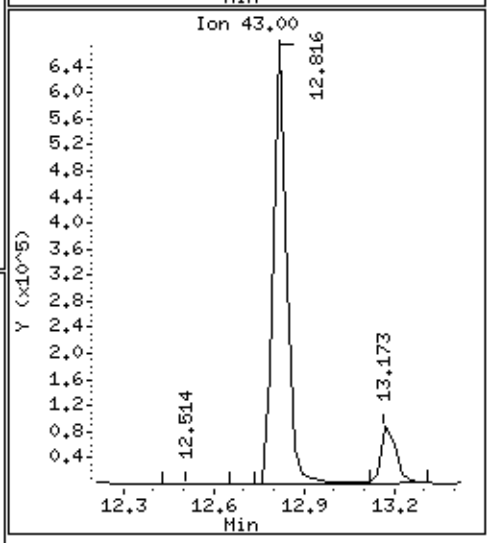


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

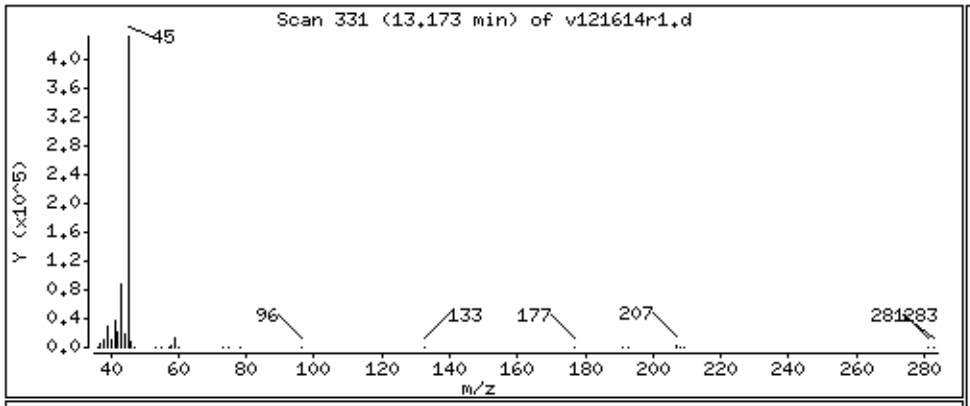
Operator: sn

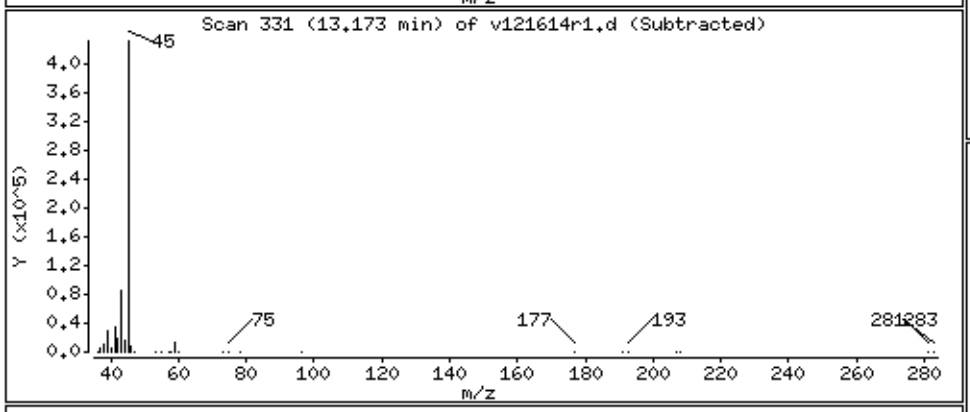
Column phase: RTx-624

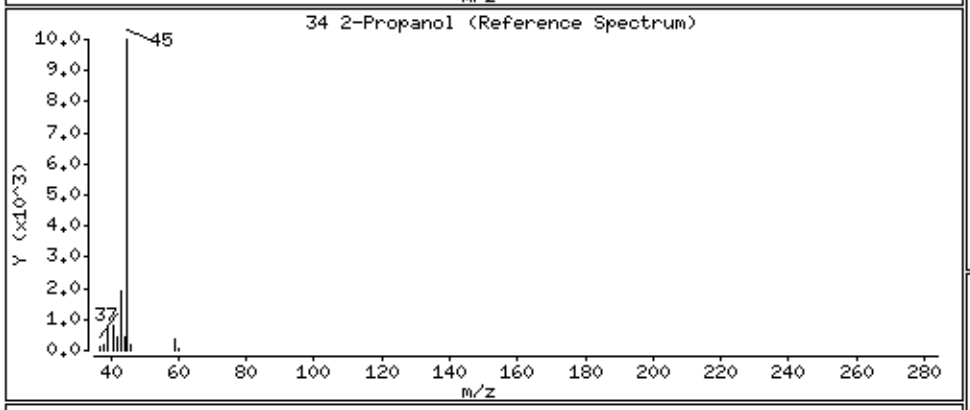
Column diameter: 0.32

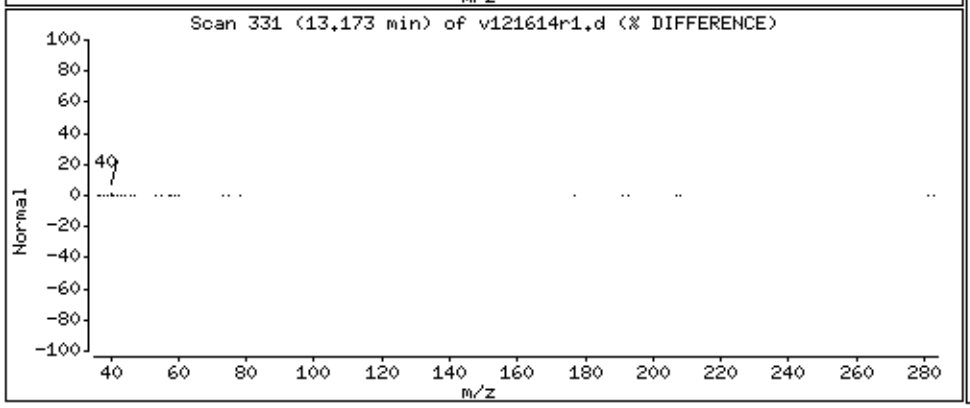
34 2-Propanol

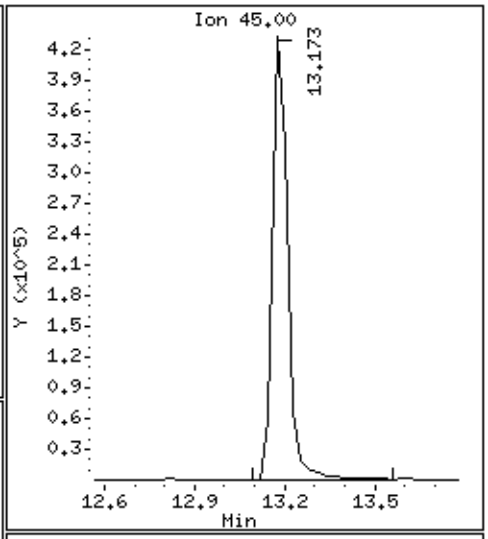
Concentration: 28.482 PPBV

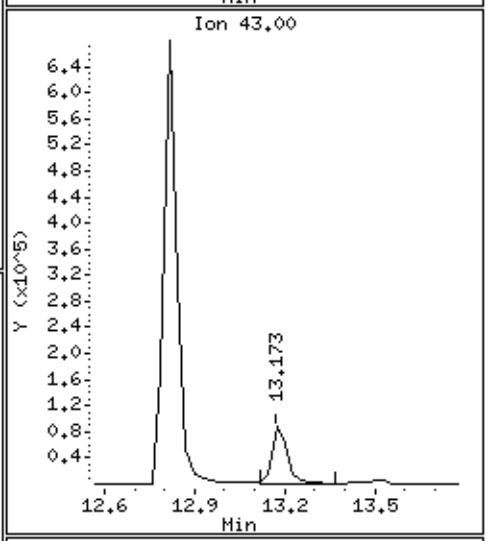


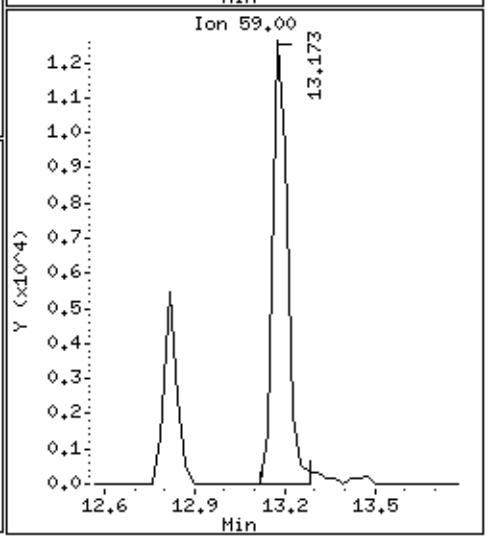



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

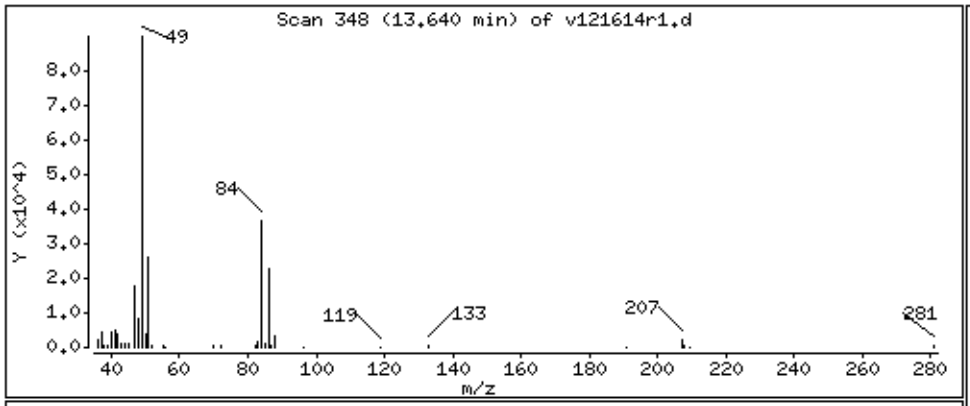
Operator: sn

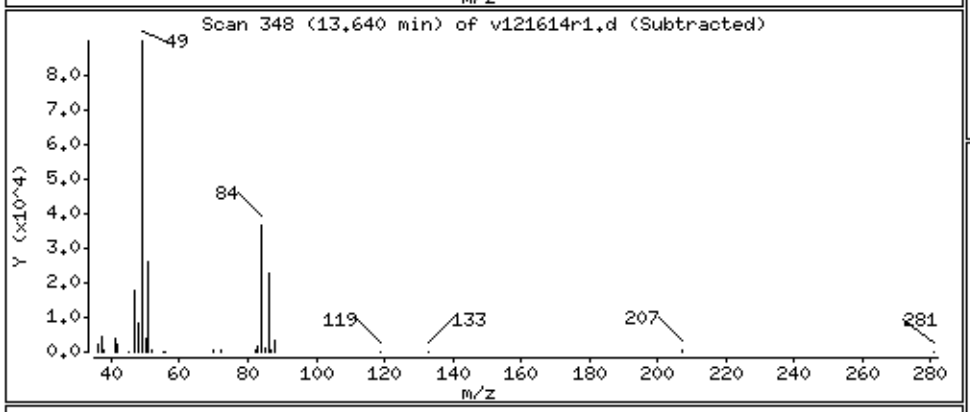
Column phase: RTx-624

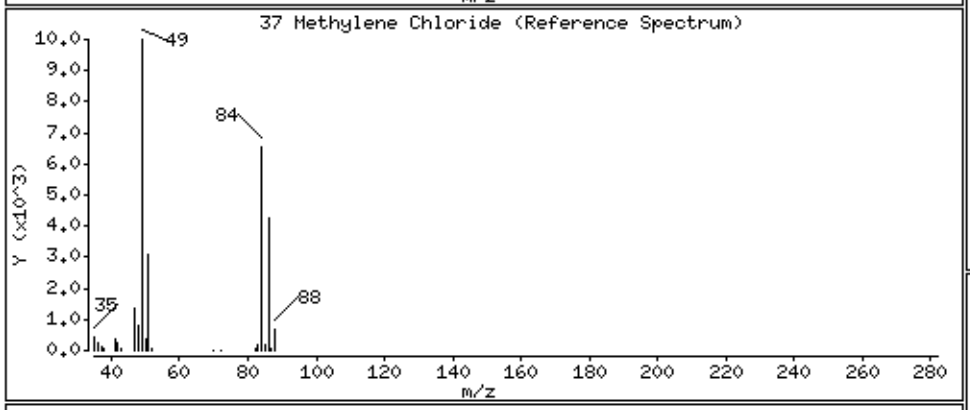
Column diameter: 0.32

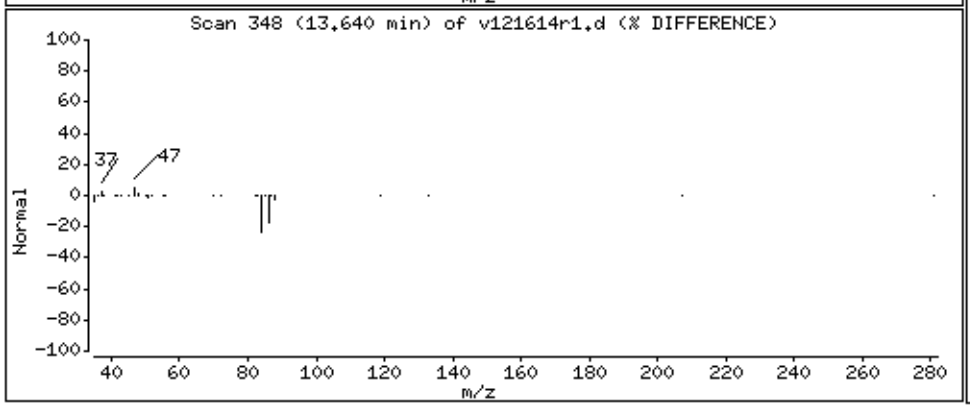
37 Methylene Chloride

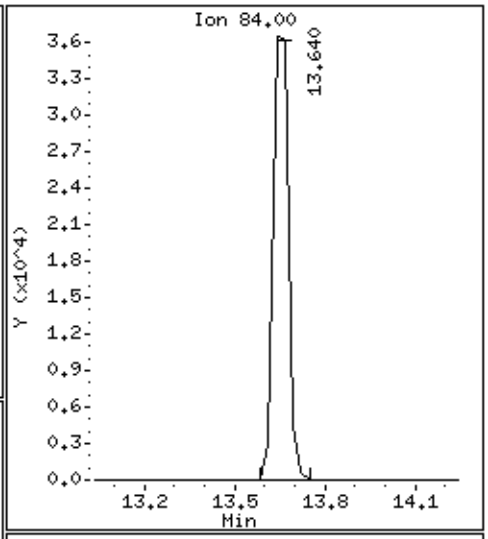
Concentration: 8.888 PPBV

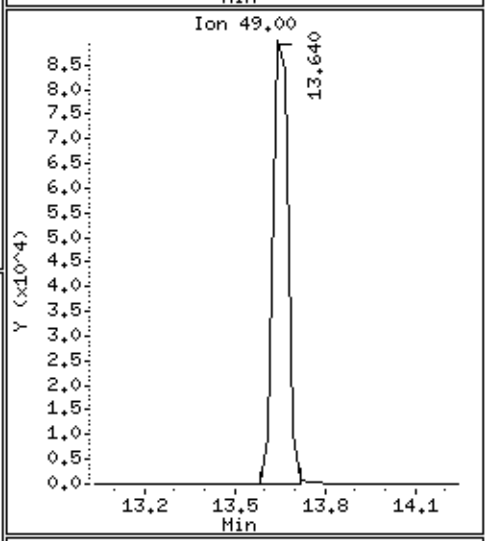


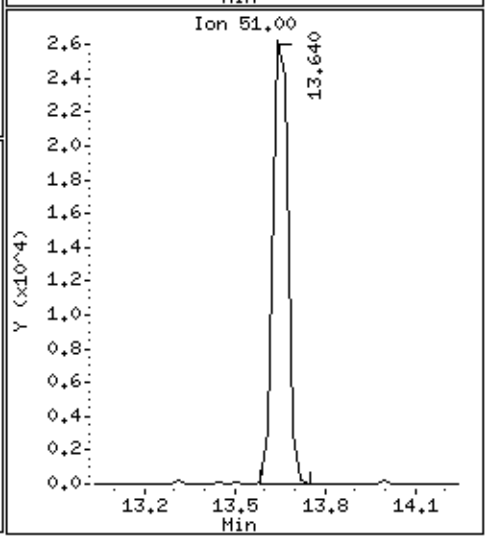



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

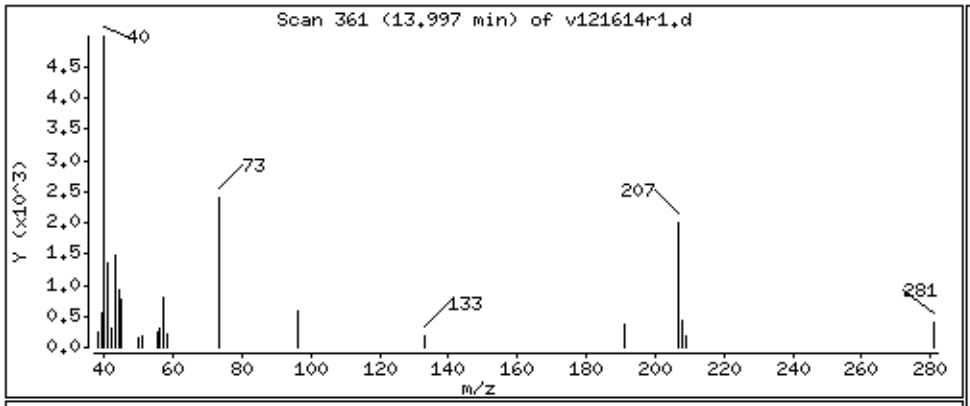
Operator: sn

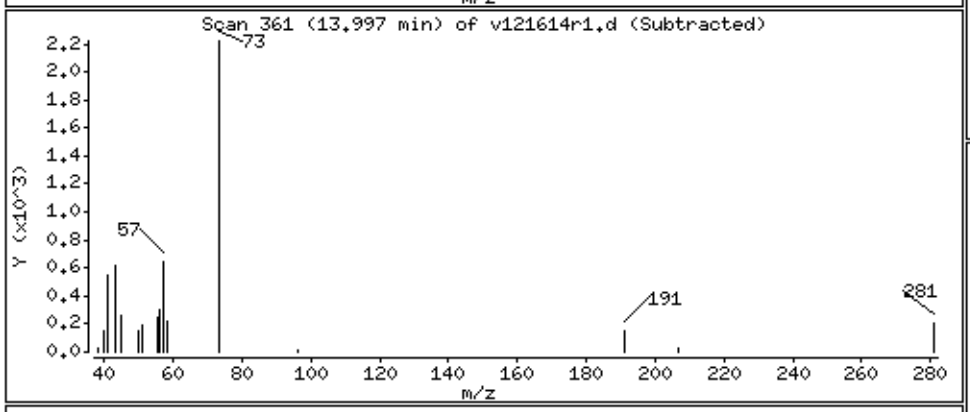
Column phase: RTx-624

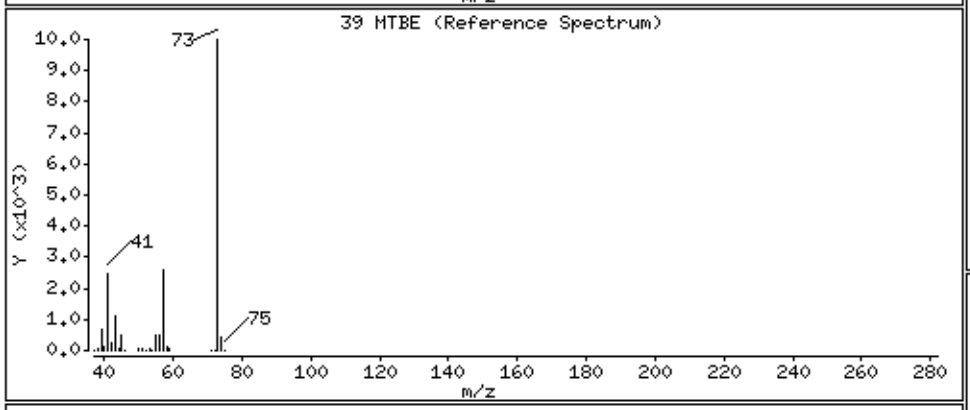
Column diameter: 0.32

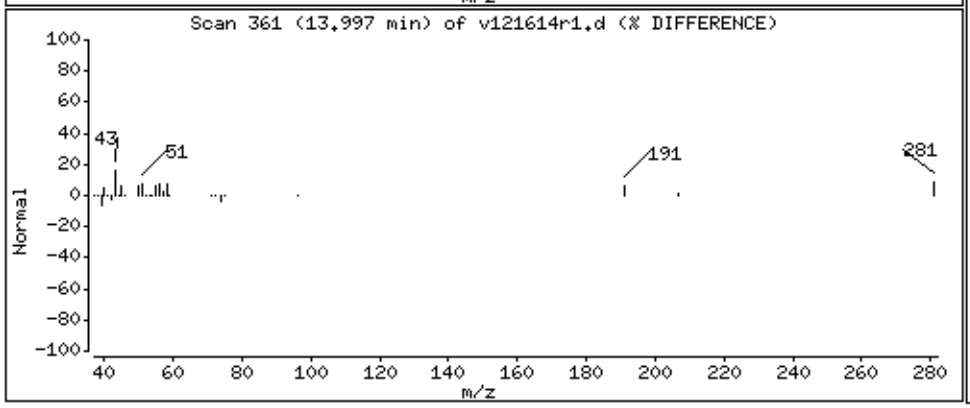
39 MTBE

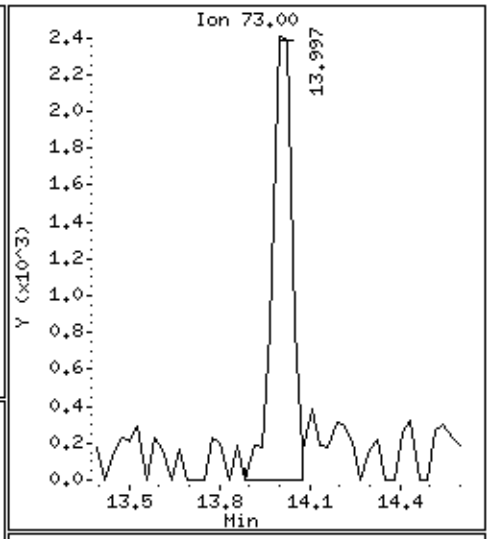
Concentration: 0.2128 PPBV

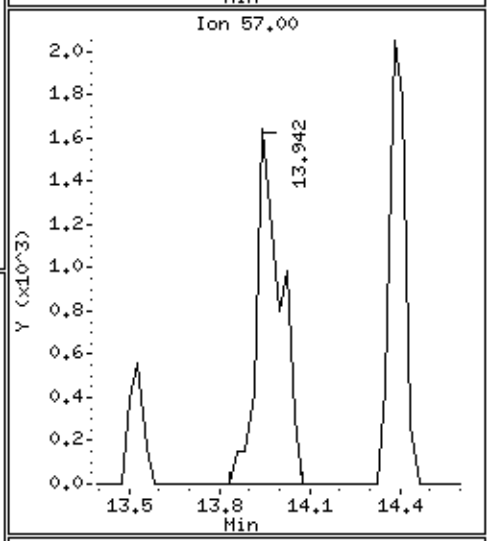


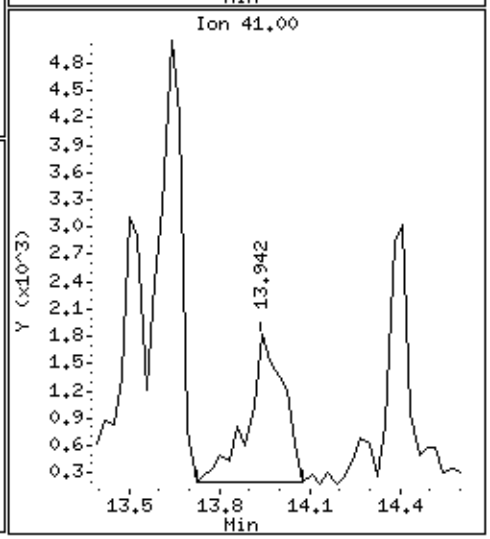



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

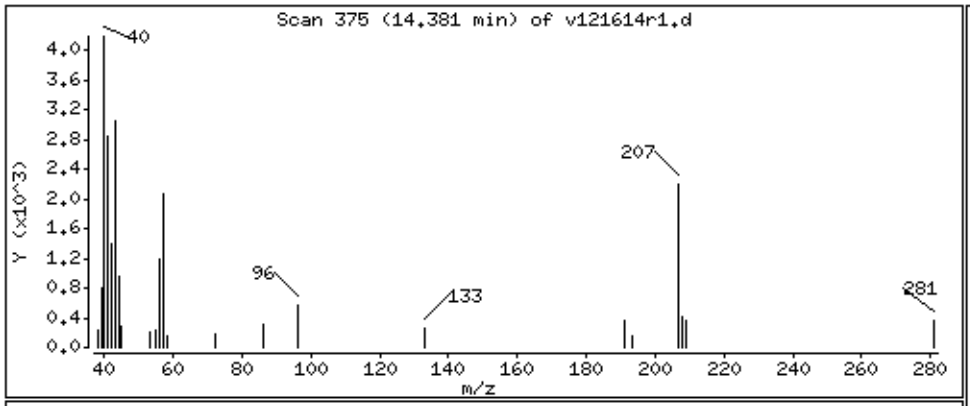
Operator: sn

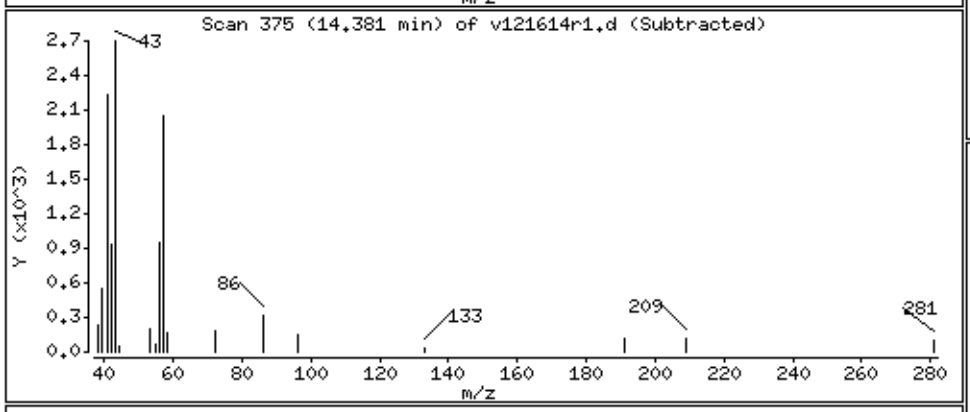
Column phase: RTx-624

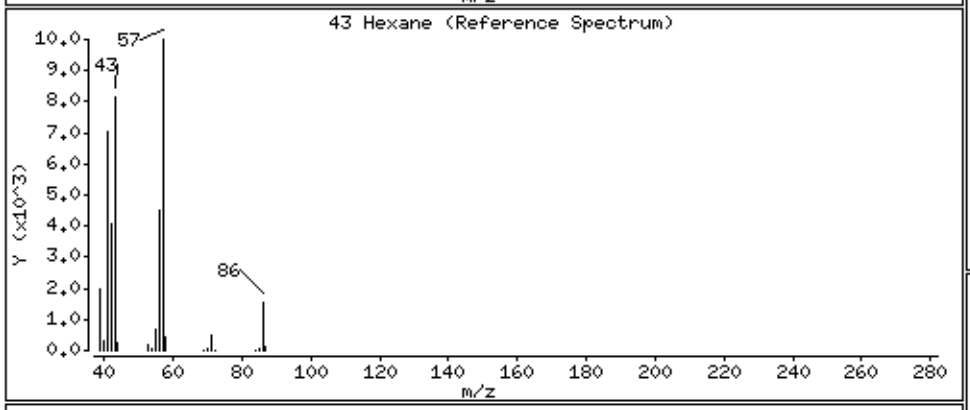
Column diameter: 0.32

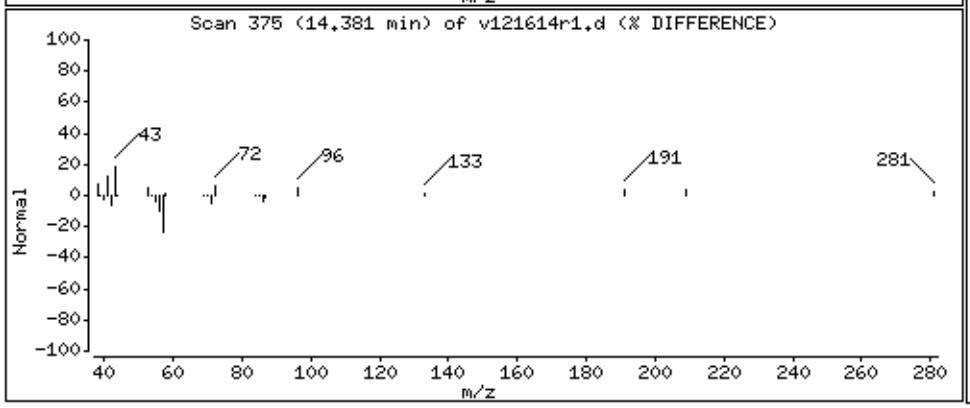
43 Hexane

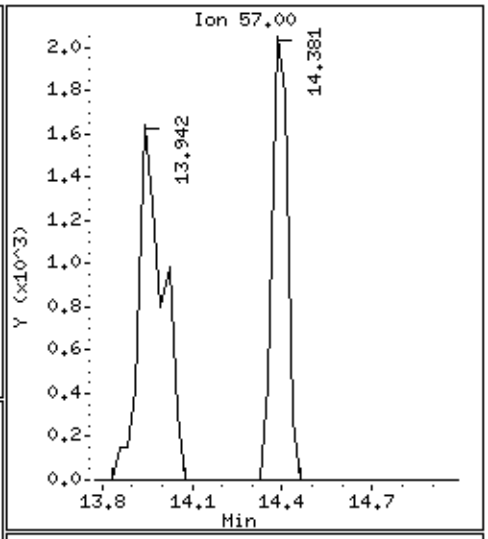
Concentration: 0.1739 PPBV

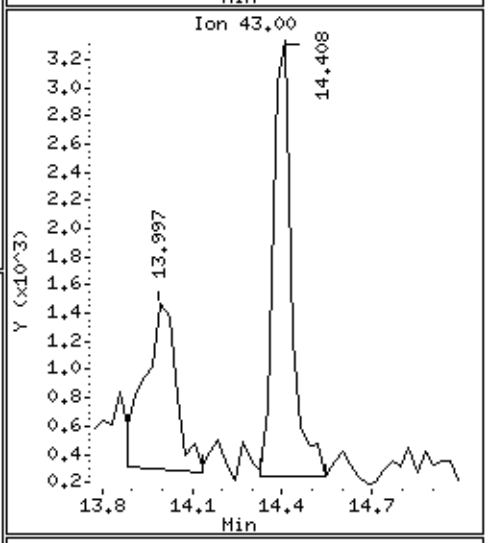


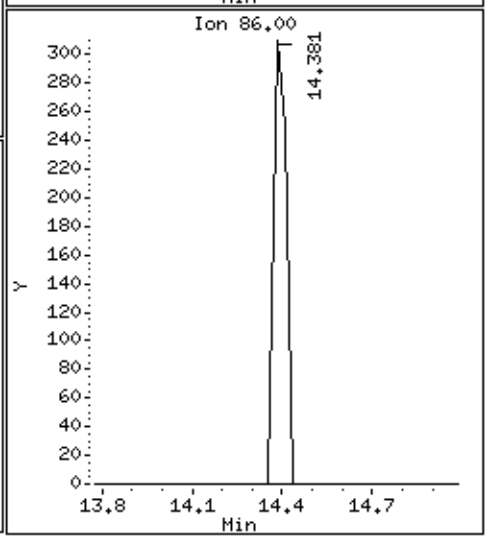



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

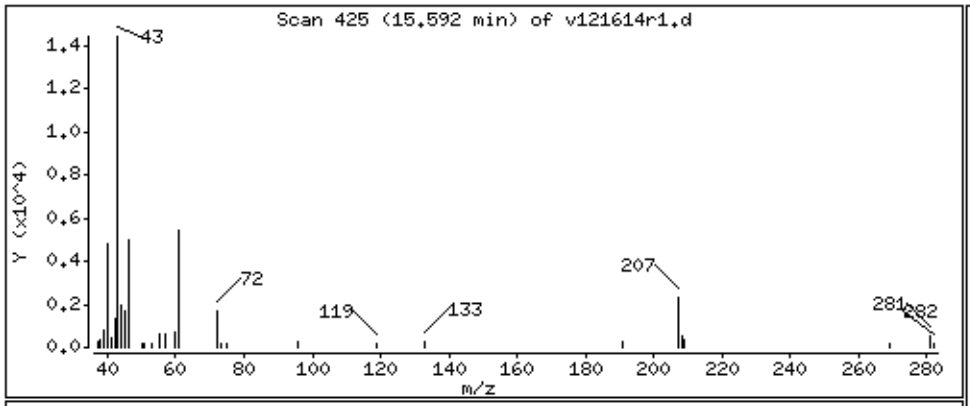
Operator: sn

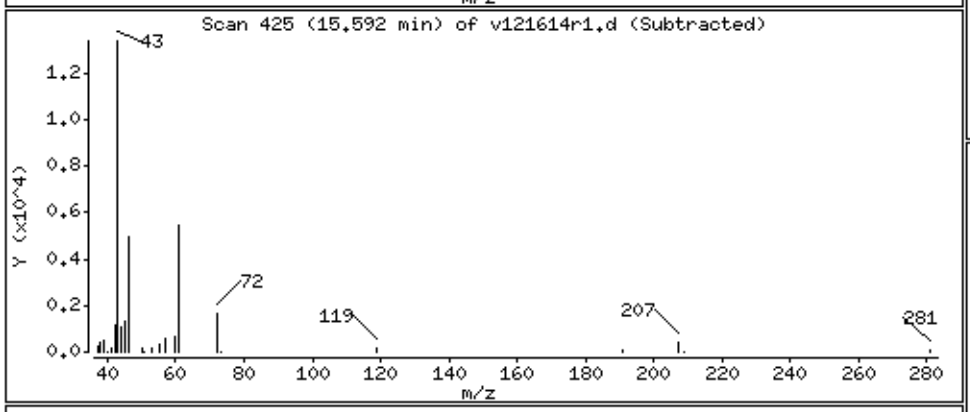
Column phase: RTx-624

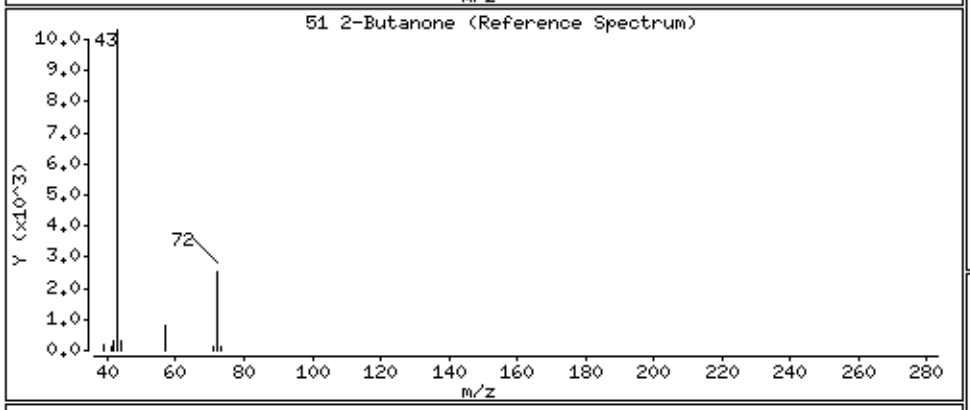
Column diameter: 0.32

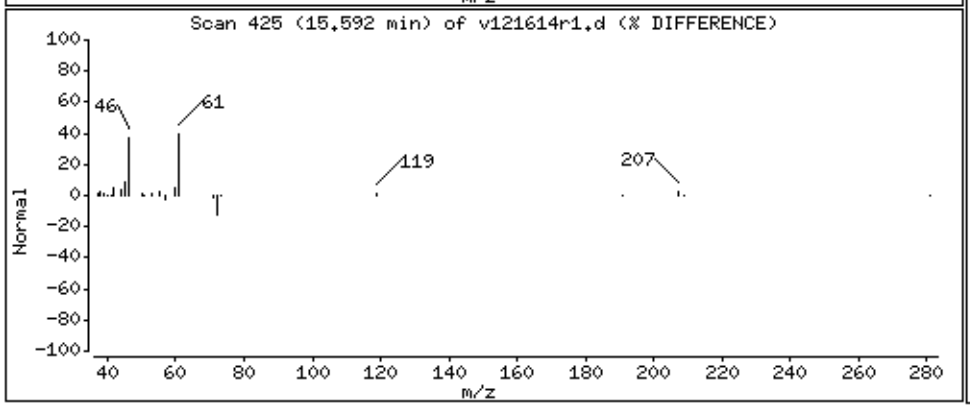
51 2-Butanone

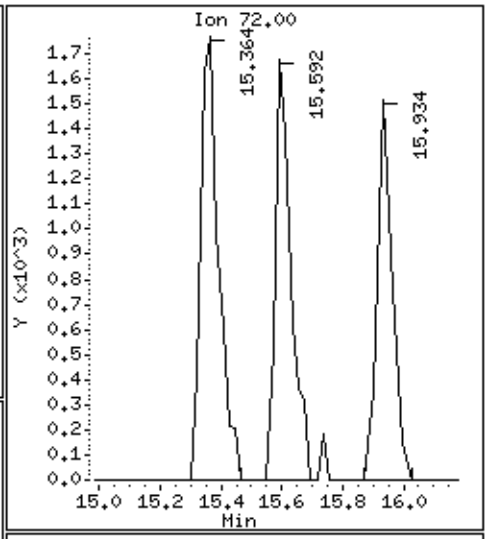
Concentration: 0.6995 PPBV

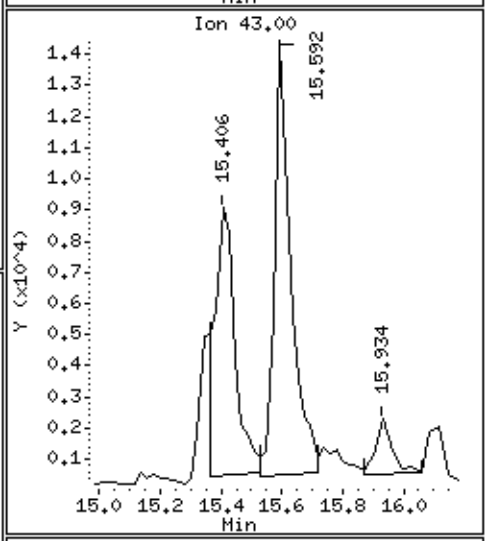


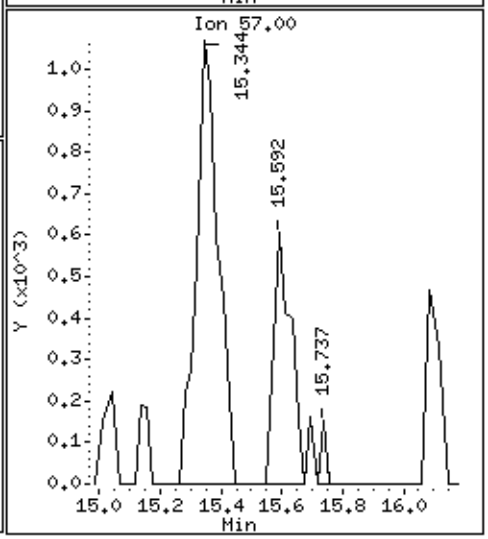



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

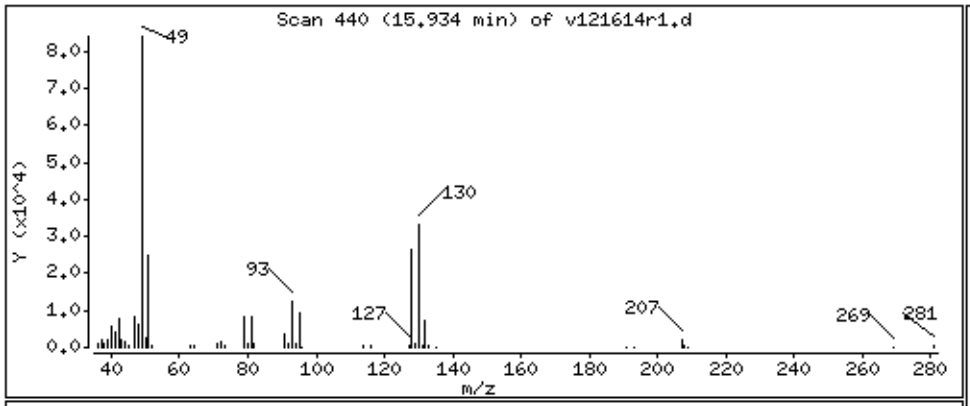
Operator: sn

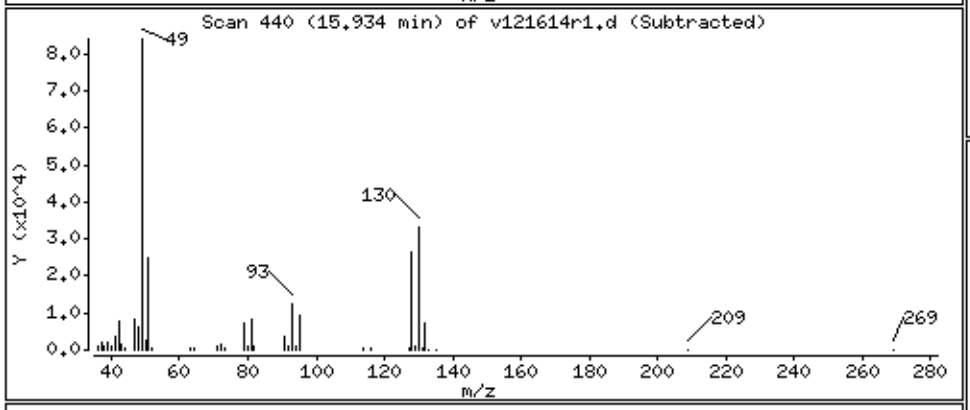
Column phase: RTx-624

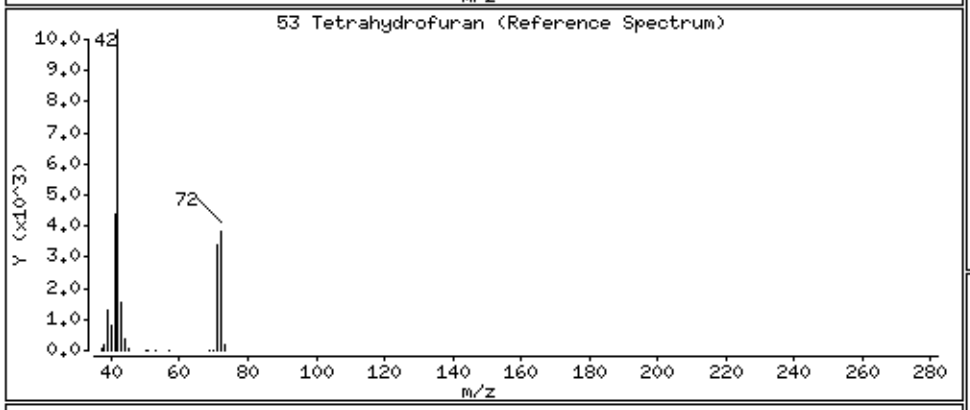
Column diameter: 0.32

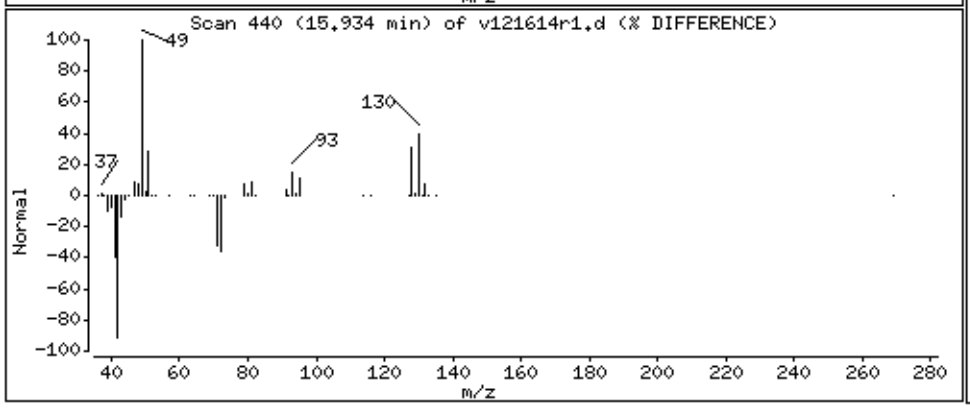
53 Tetrahydrofuran

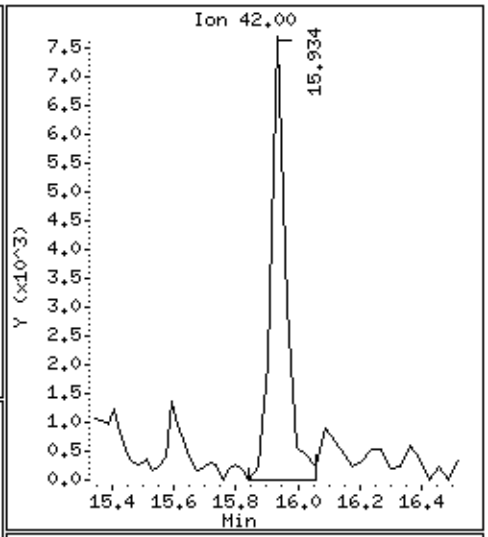
Concentration: 0.5880 PPBV

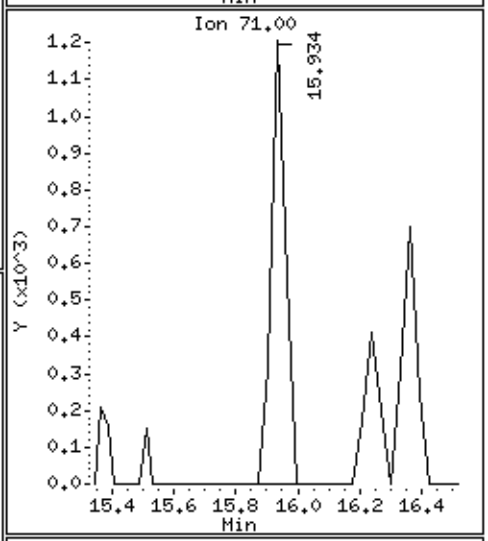


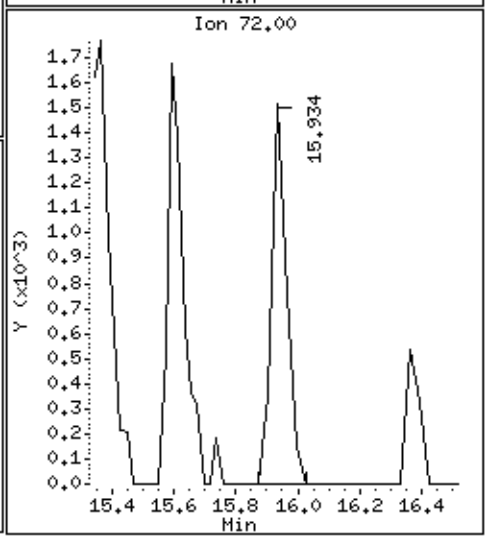



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

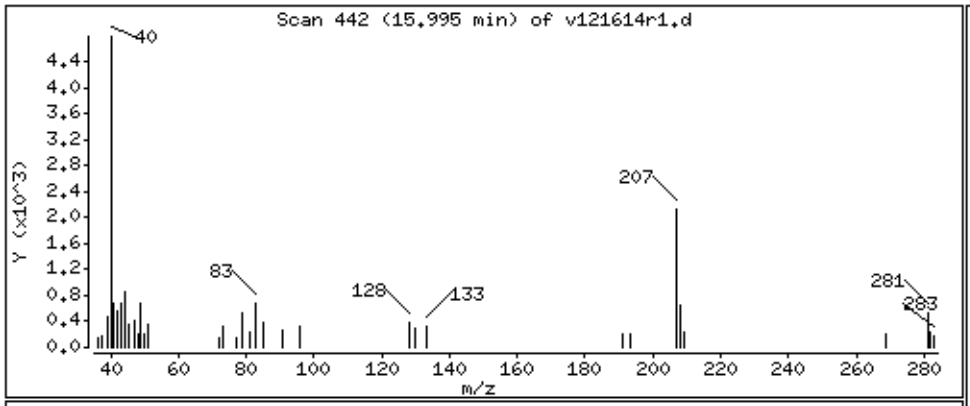
Operator: sn

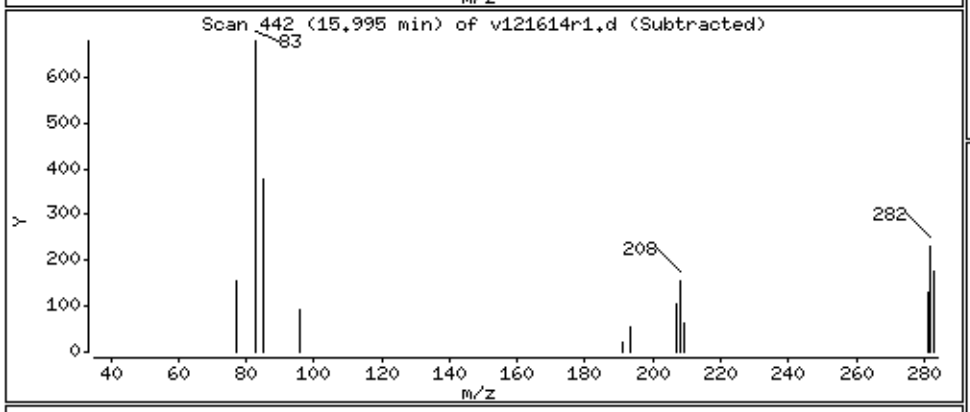
Column phase: RTx-624

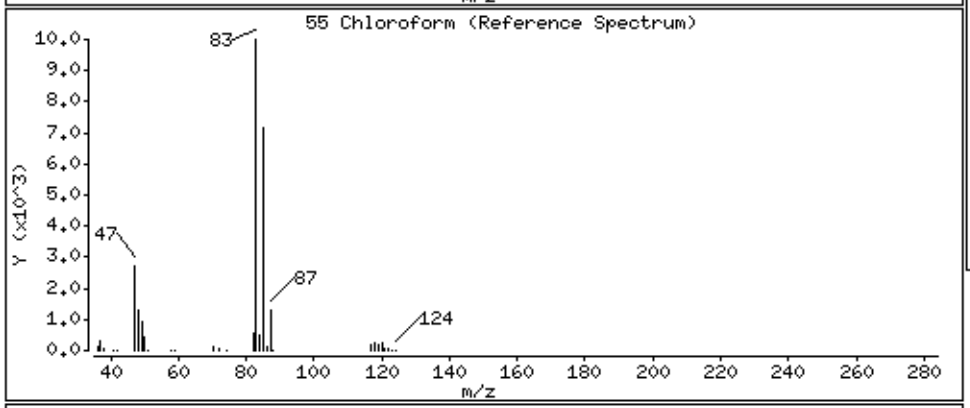
Column diameter: 0.32

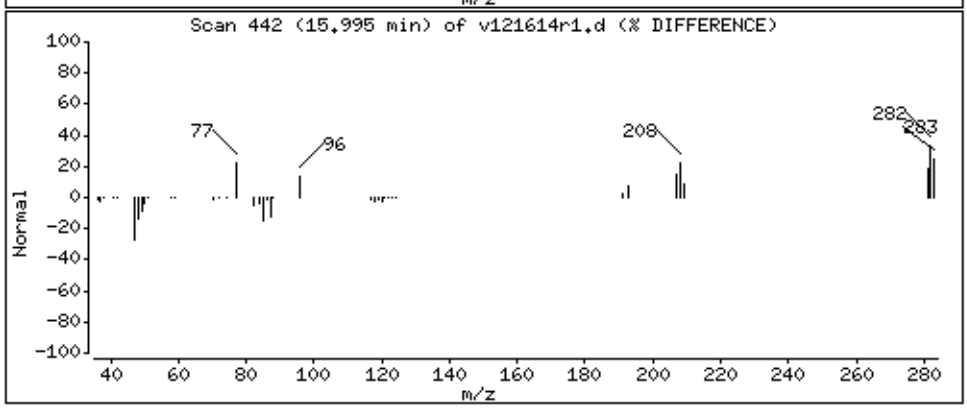
55 Chloroform

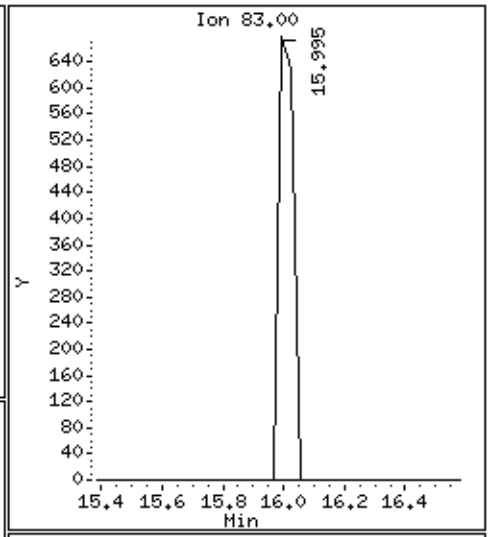
Concentration: 0.05811 PPBV

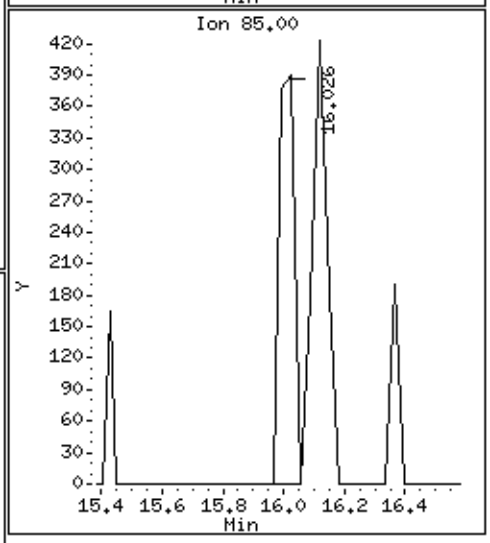


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

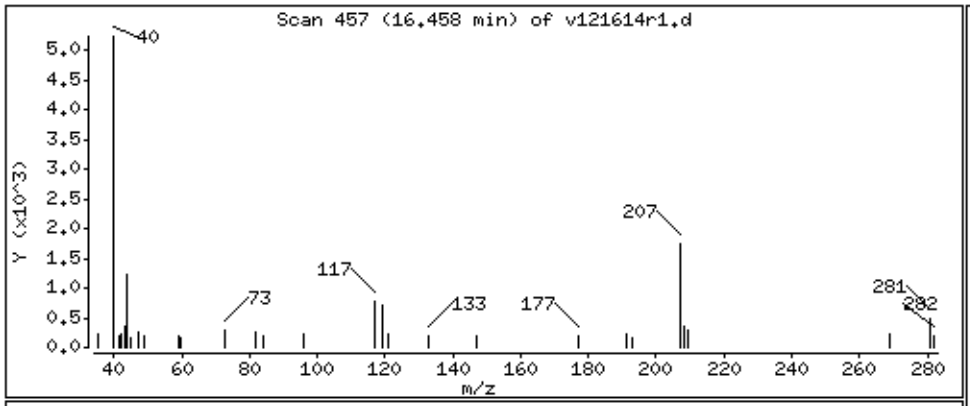
Operator: sn

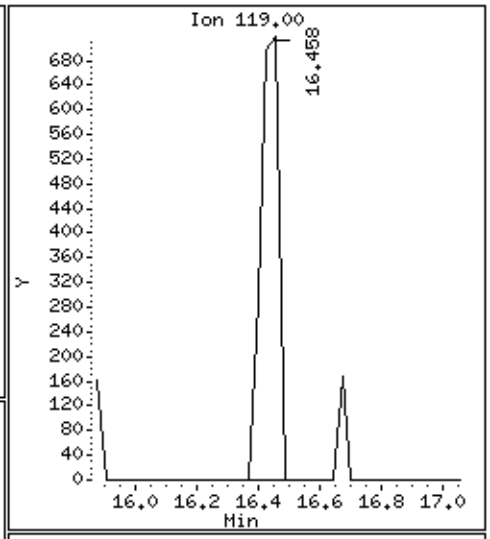
Column phase: RTx-624

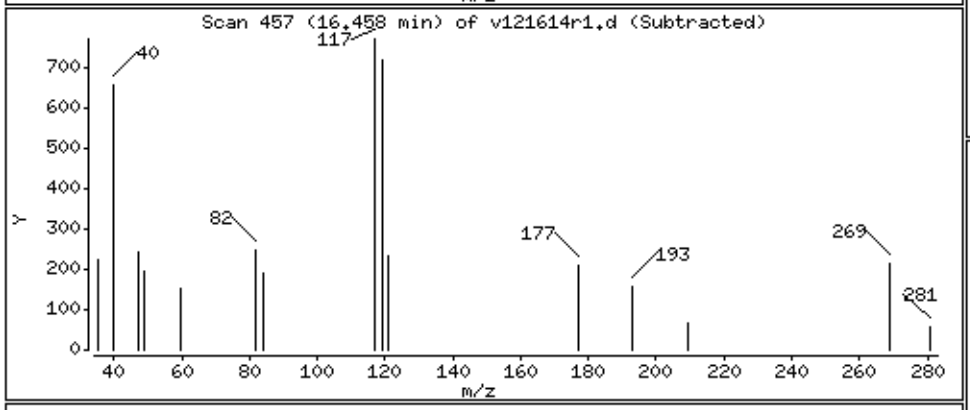
Column diameter: 0.32

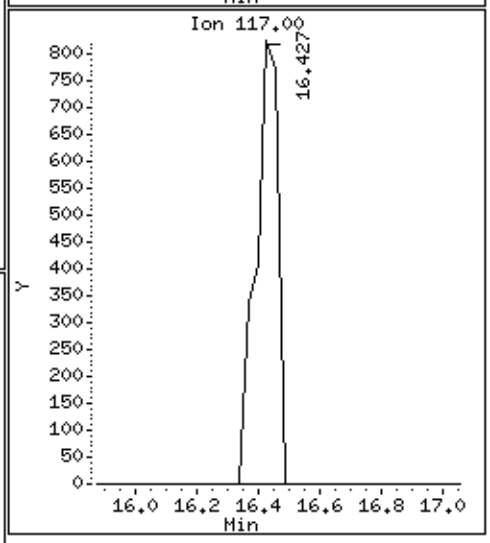
59 Carbon Tetrachloride

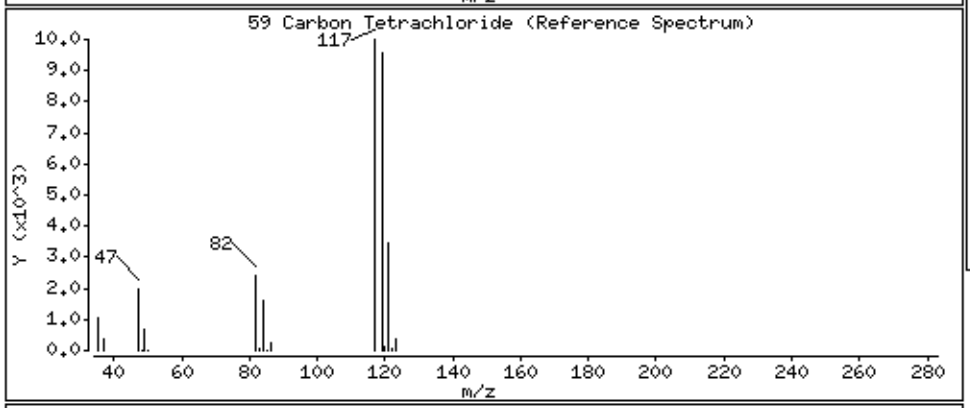
Concentration: 0.07572 PPBV

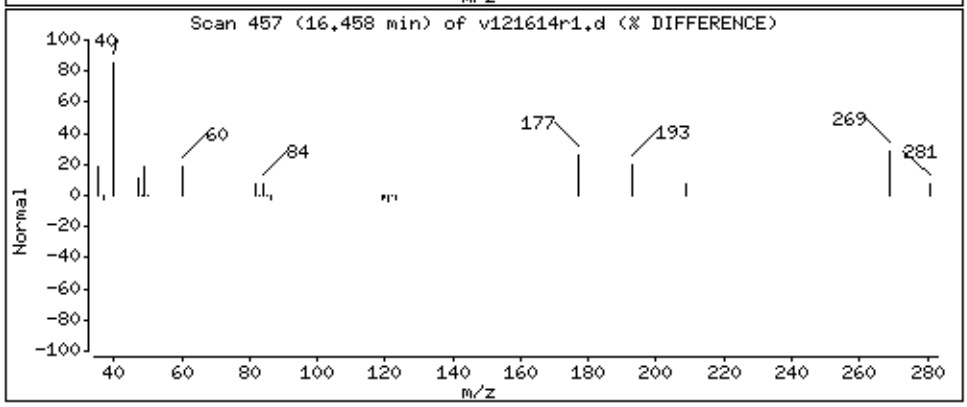


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

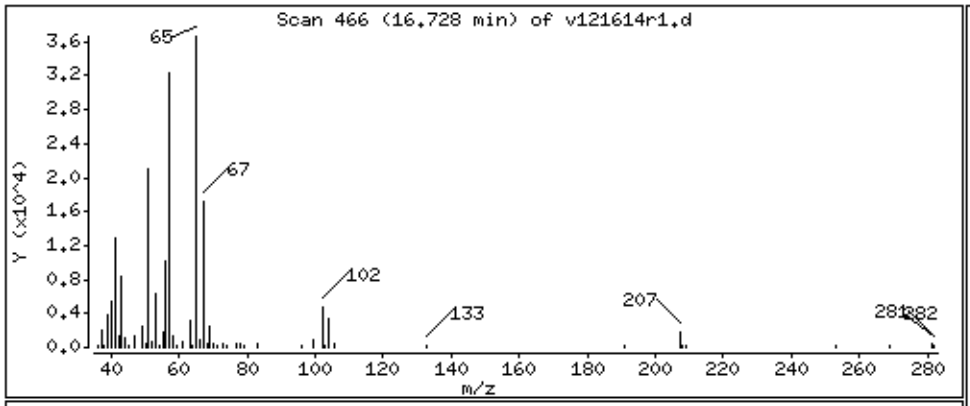
Operator: sn

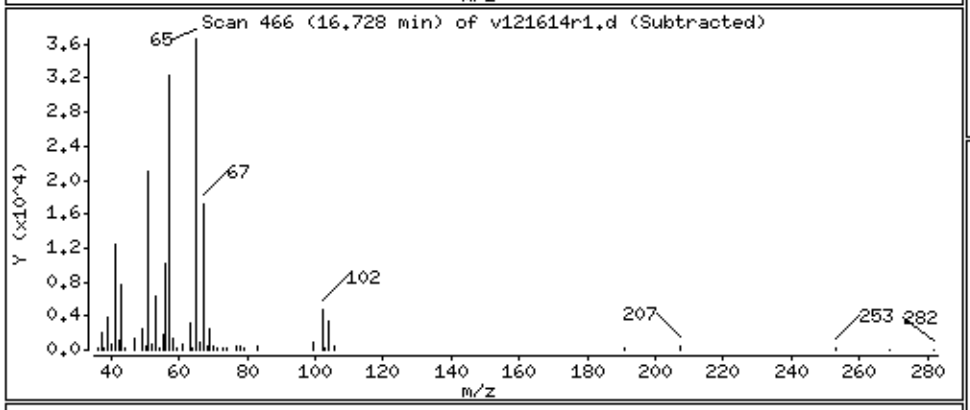
Column phase: RTx-624

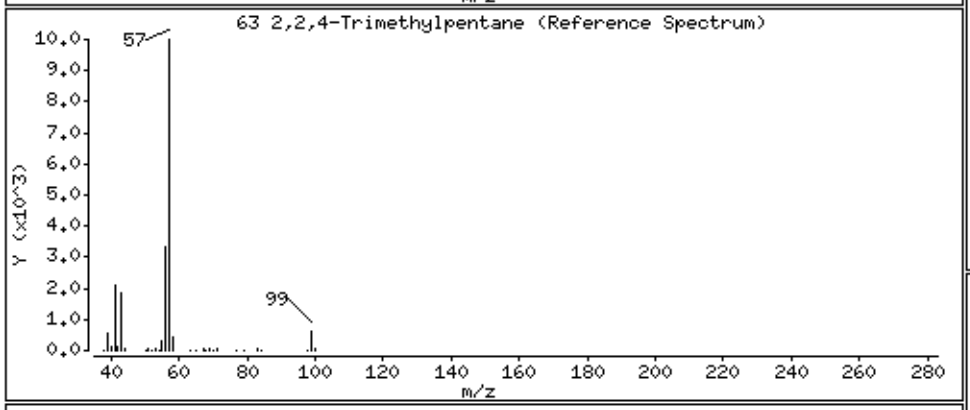
Column diameter: 0.32

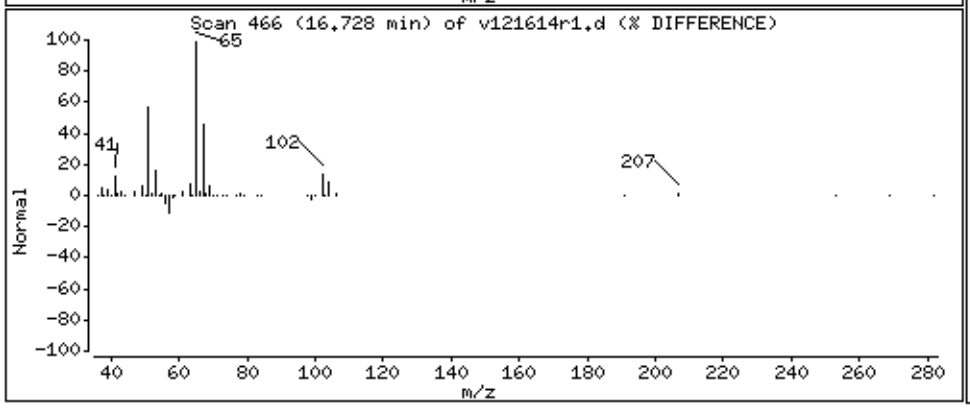
63 2,2,4-Trimethylpentane

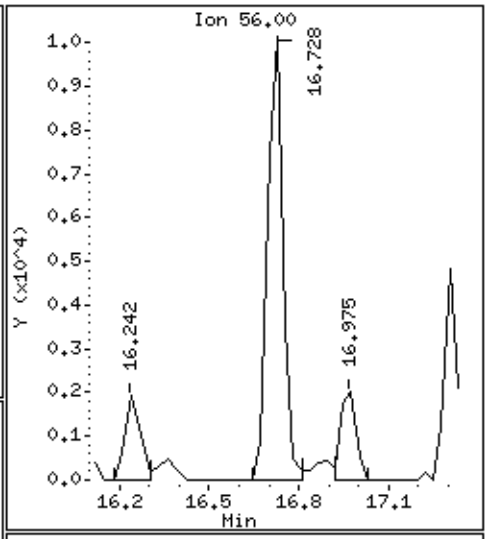
Concentration: 0.8335 PPBV

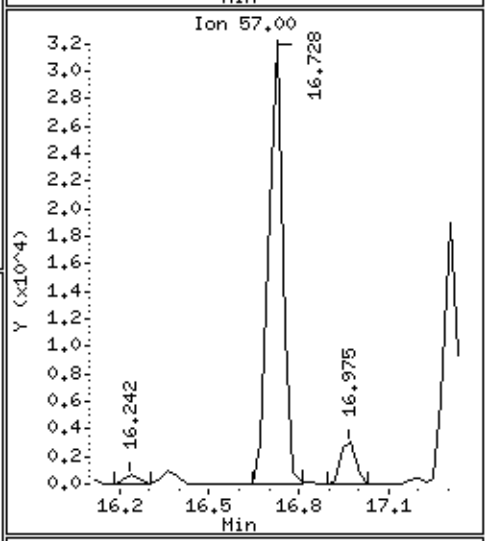


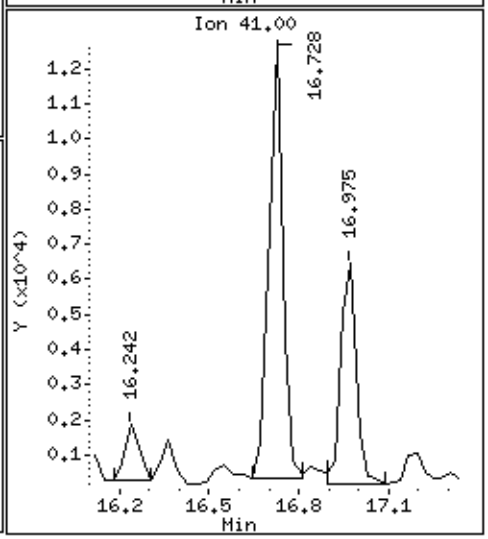



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

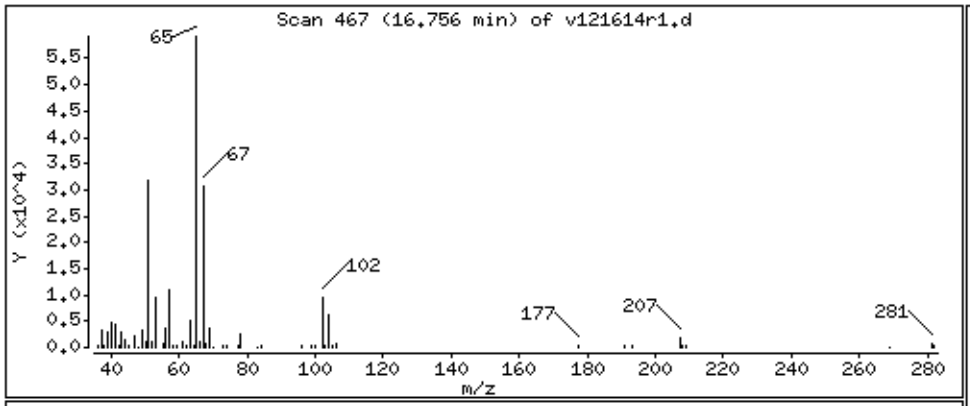
Operator: sn

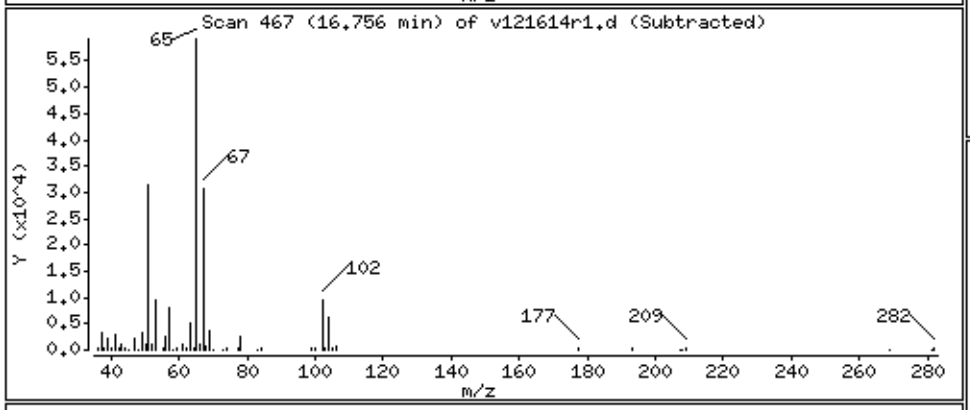
Column phase: RTx-624

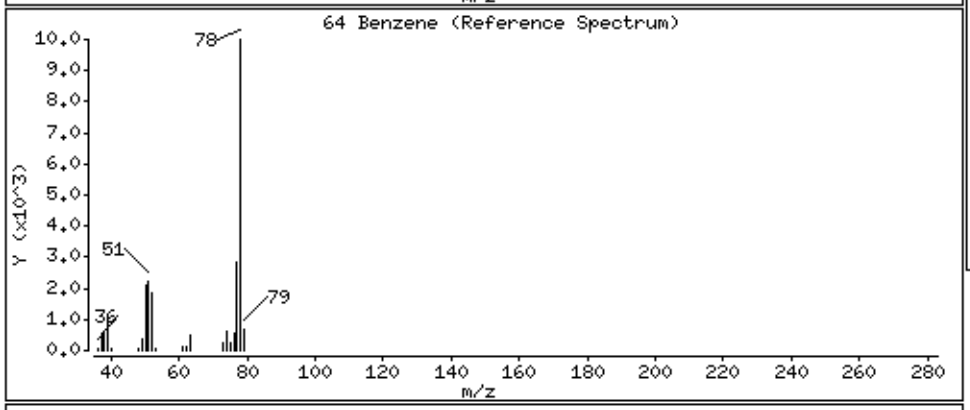
Column diameter: 0.32

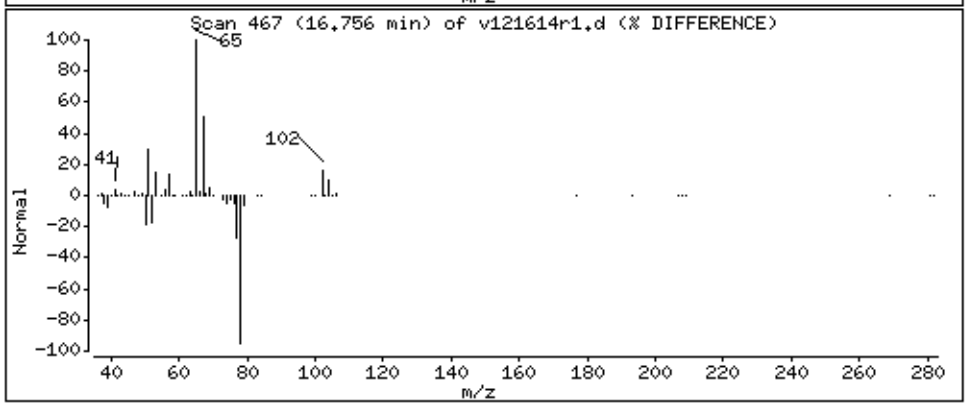
64 Benzene

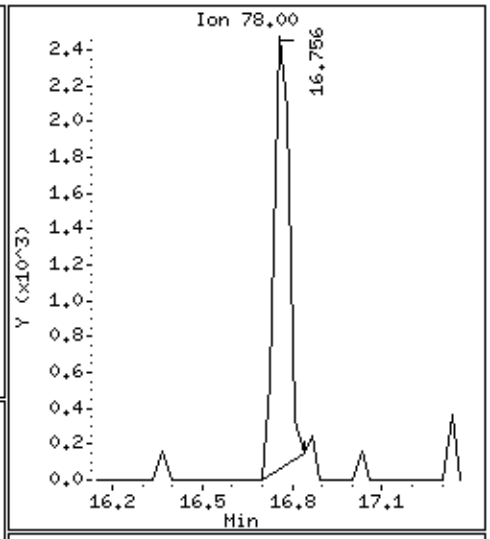
Concentration: 0.1260 PPBV

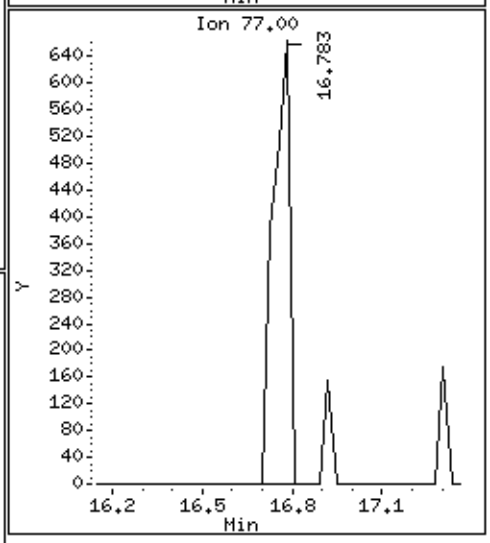


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d

Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

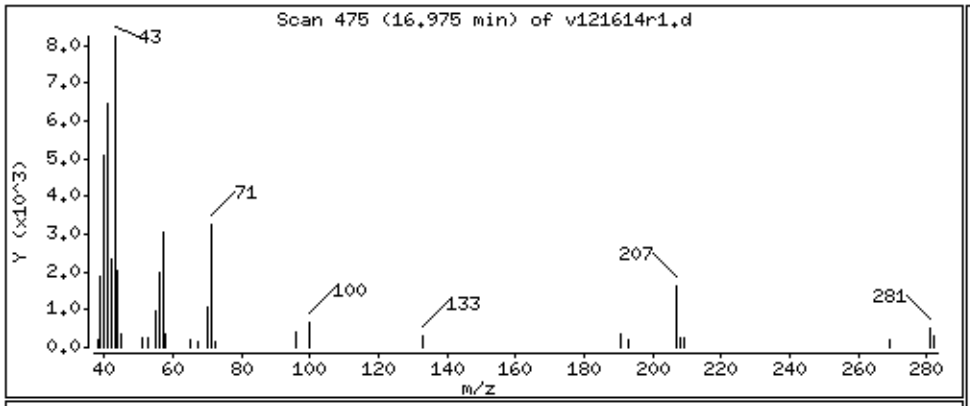
Operator: sn

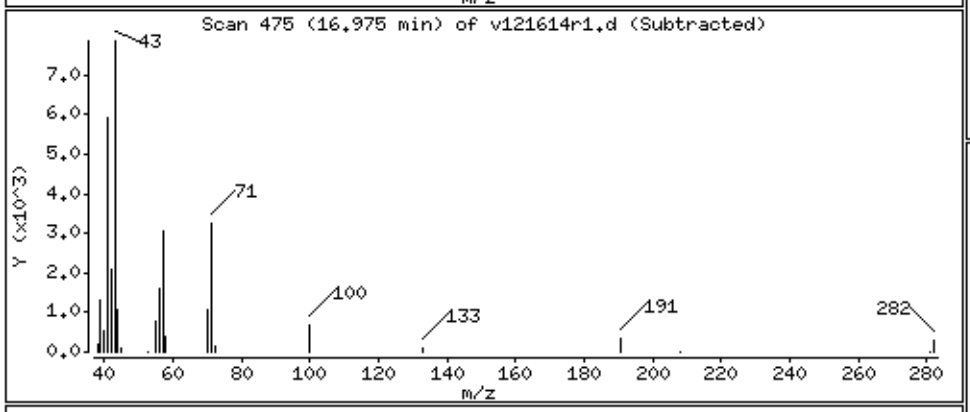
Column phase: RTx-624

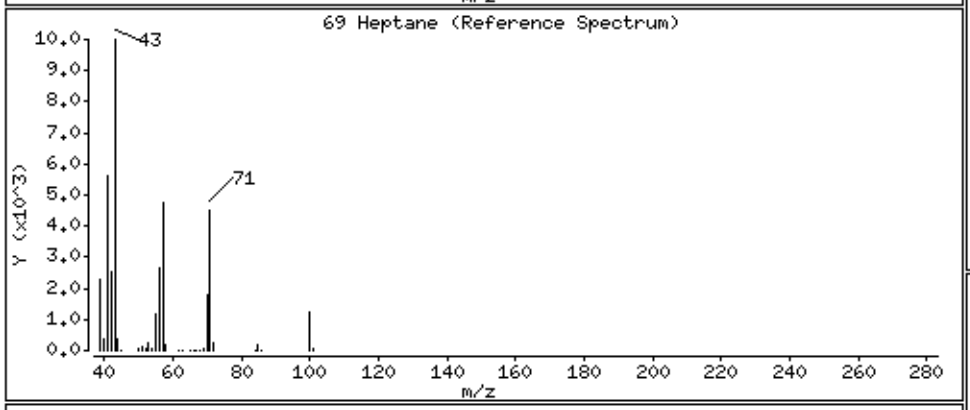
Column diameter: 0.32

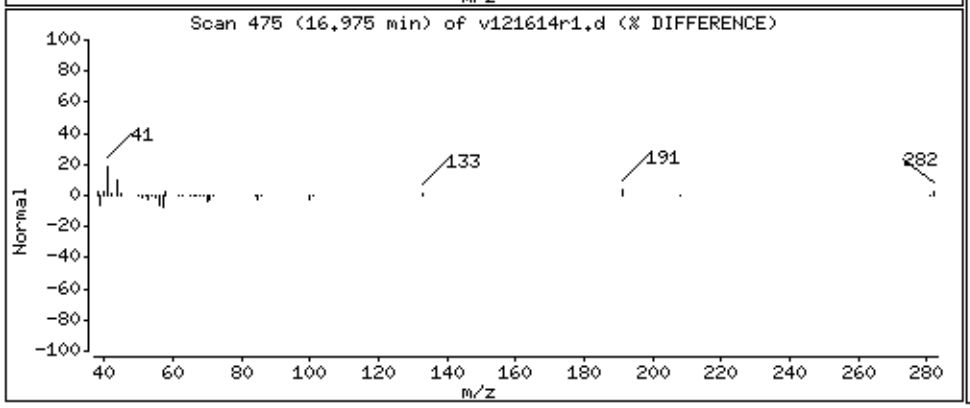
69 Heptane

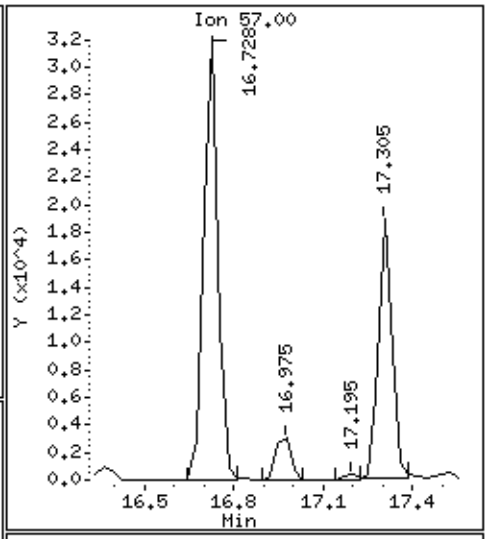
Concentration: 0.3851 PPBV

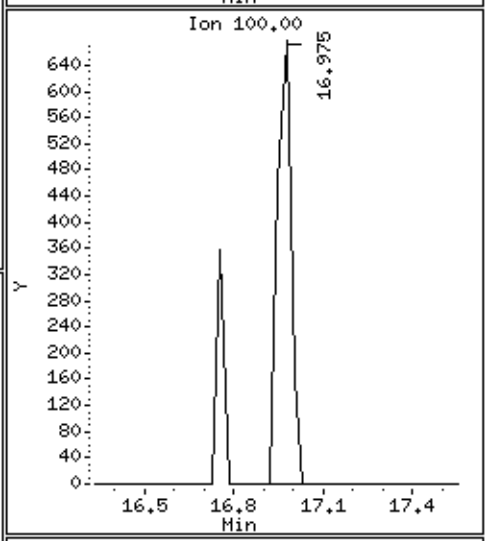


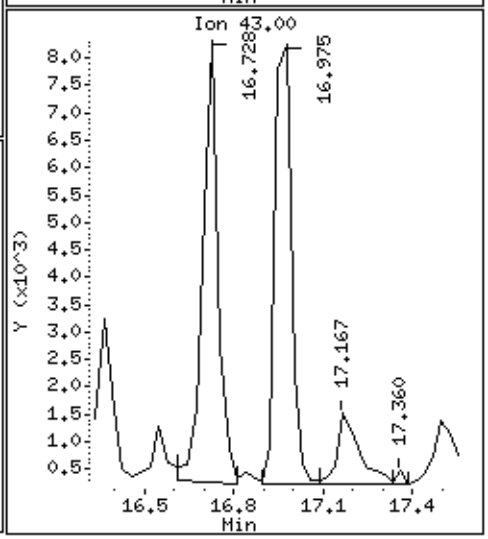



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

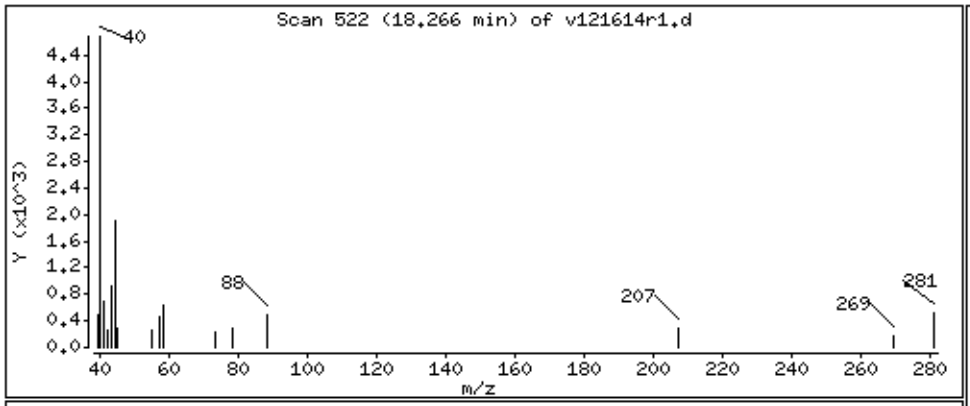
Operator: sn

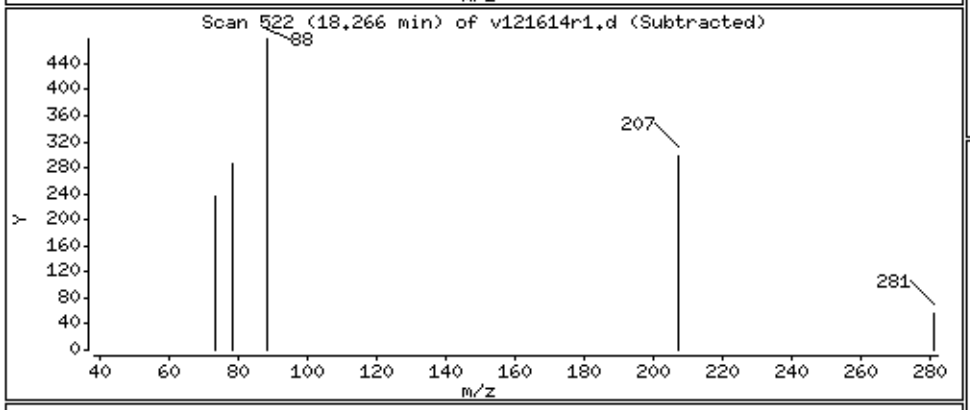
Column phase: RTx-624

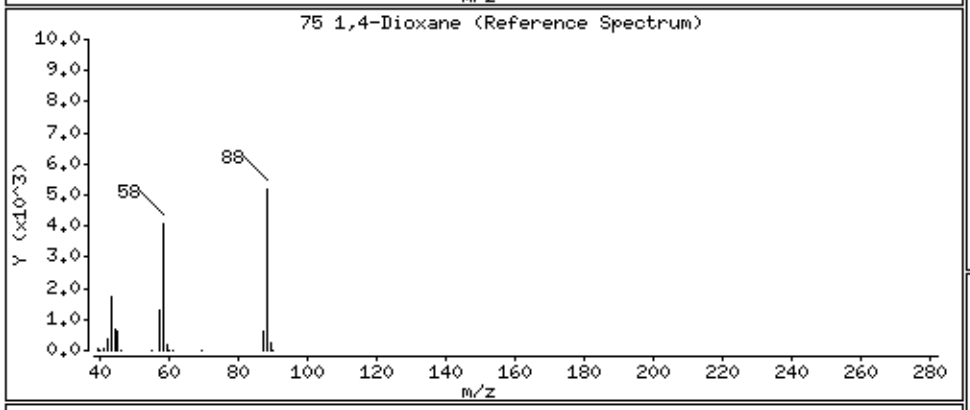
Column diameter: 0.32

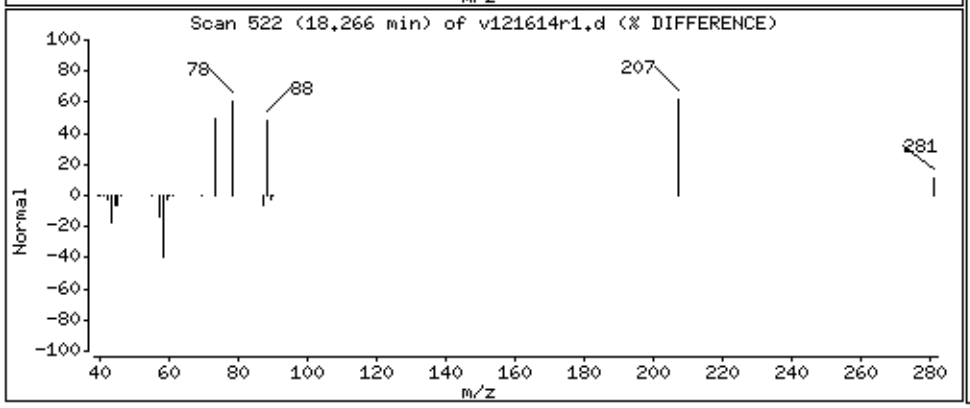
75 1,4-Dioxane

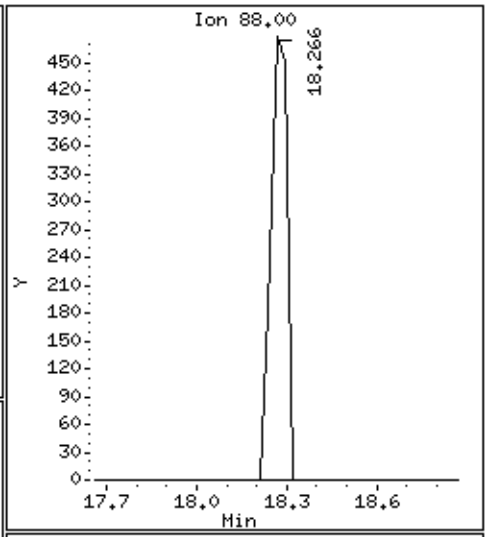
Concentration: 0.1190 PPBV

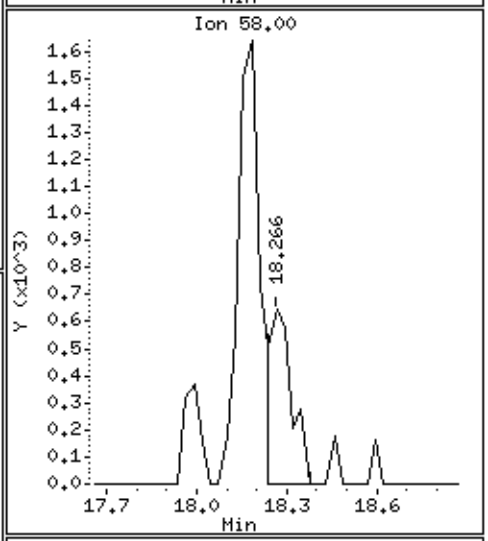


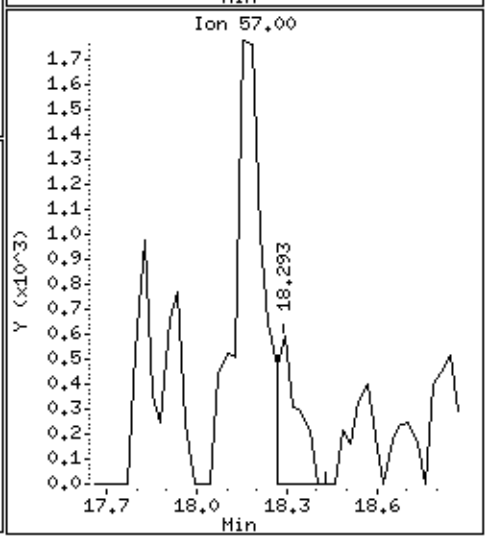



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

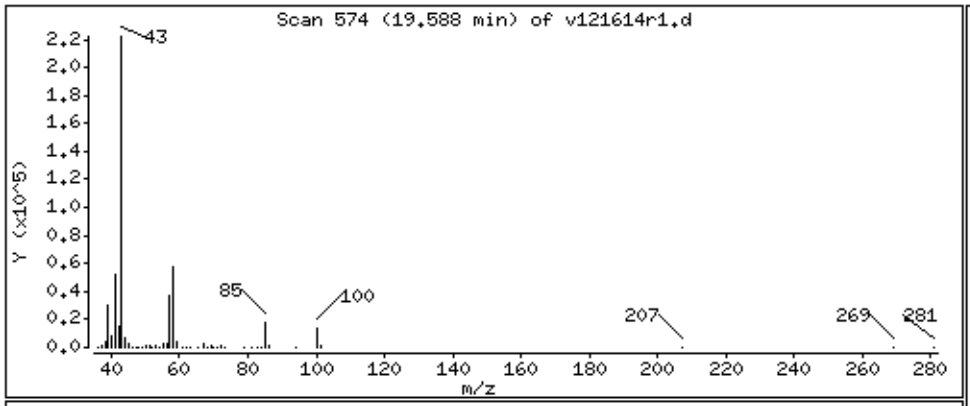
Operator: sn

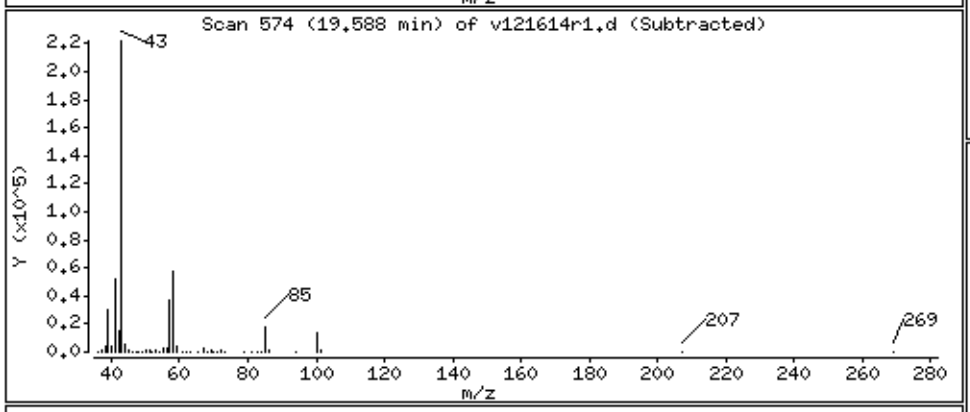
Column phase: RTx-624

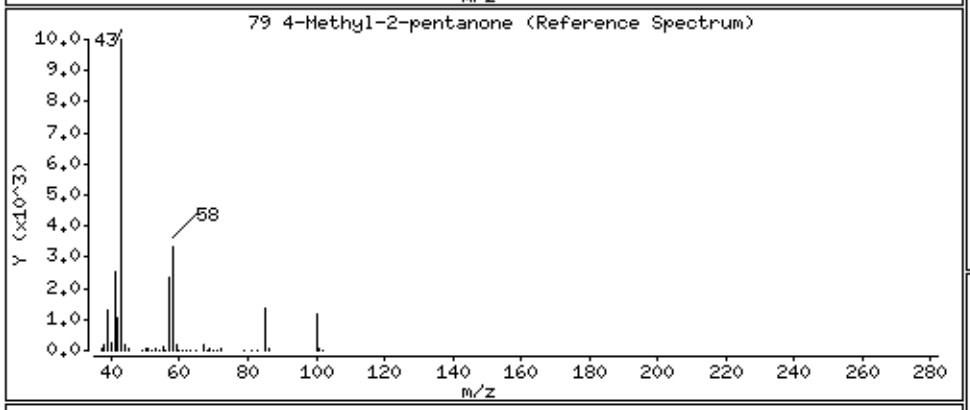
Column diameter: 0.32

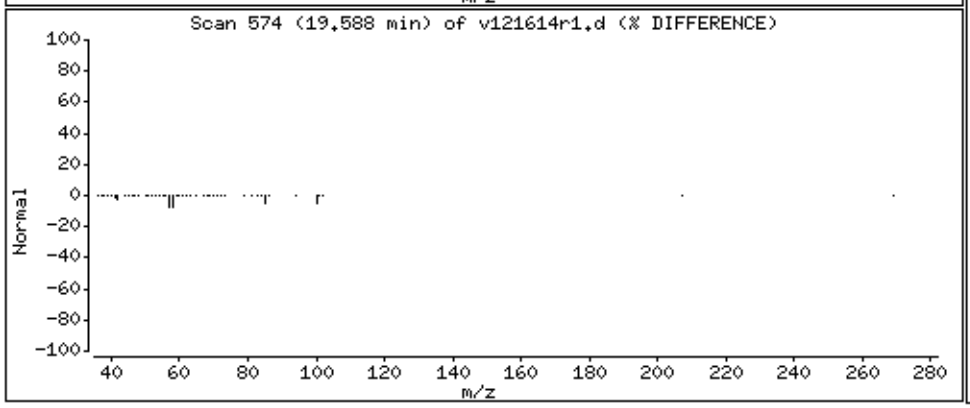
79 4-Methyl-2-pentanone

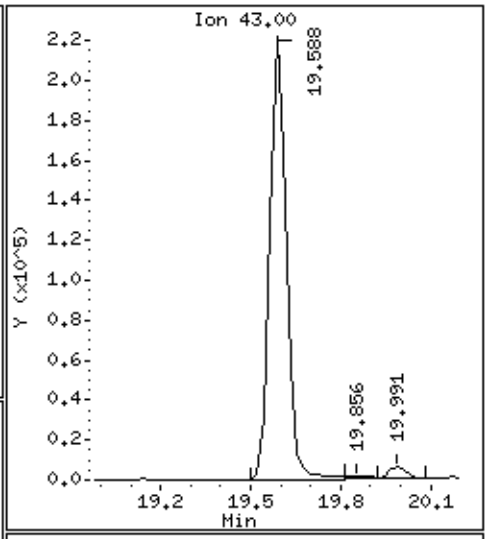
Concentration: 9.043 PPBV

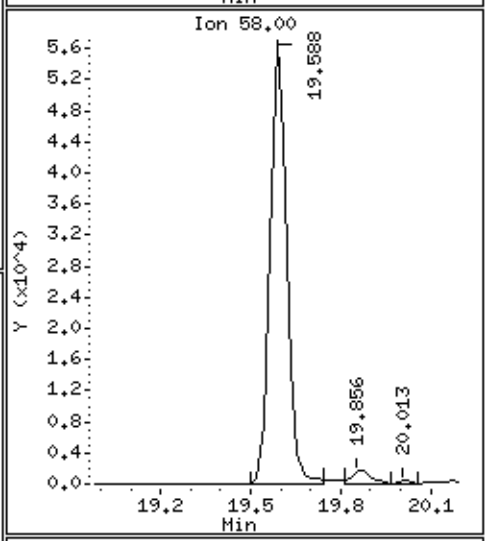


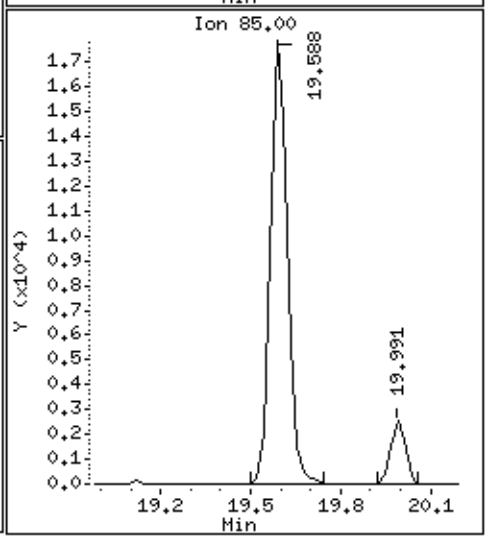



Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d

Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

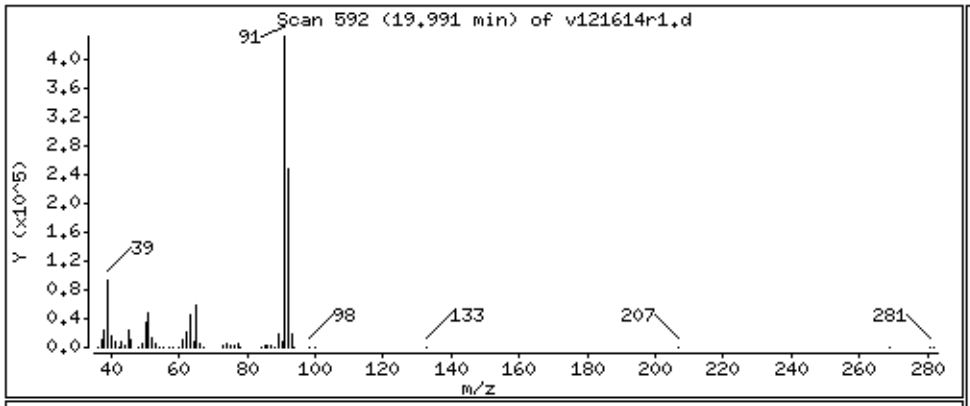
Operator: sn

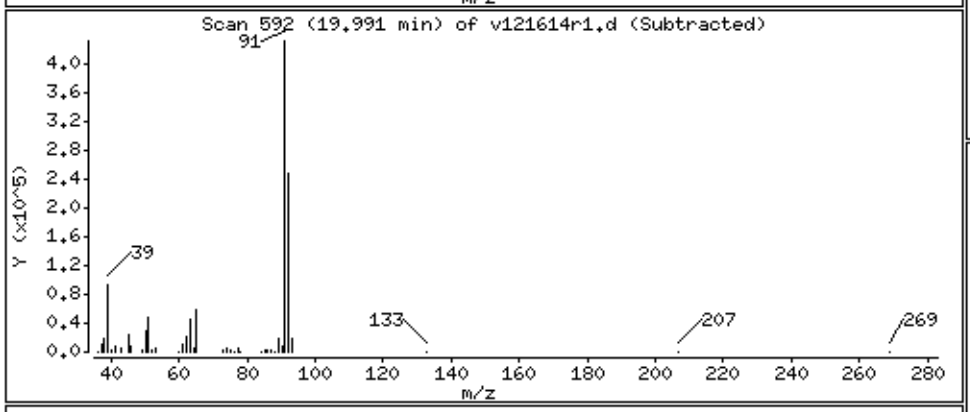
Column phase: RTx-624

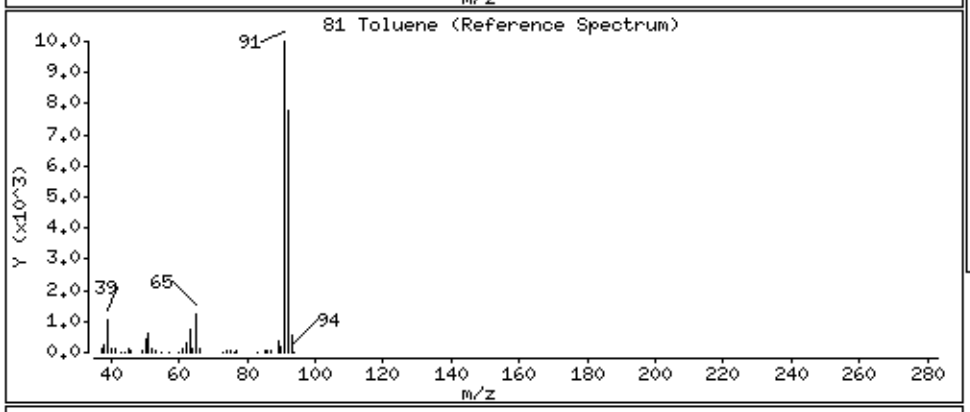
Column diameter: 0.32

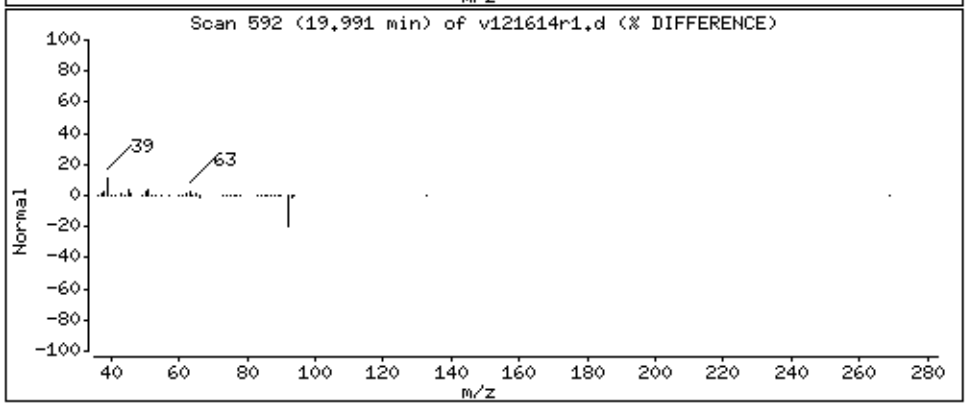
81 Toluene

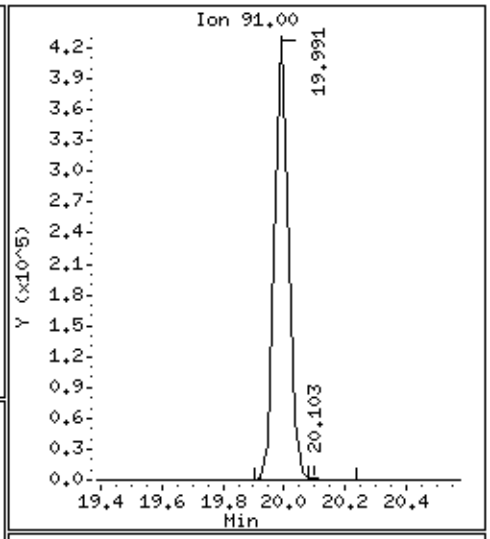
Concentration: 18.801 PPBV

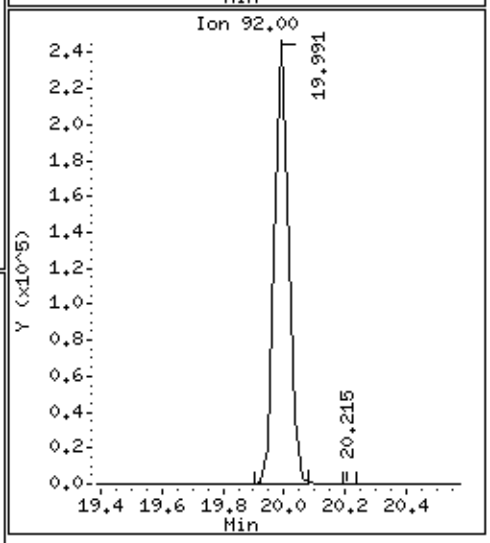


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

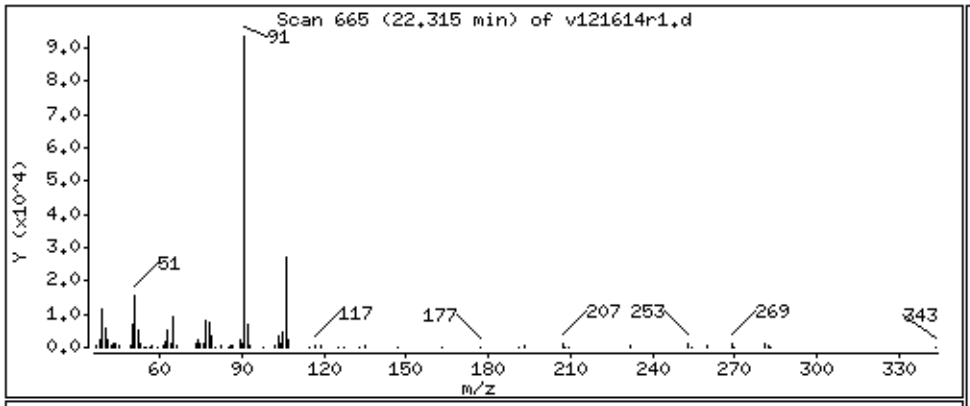
Operator: sn

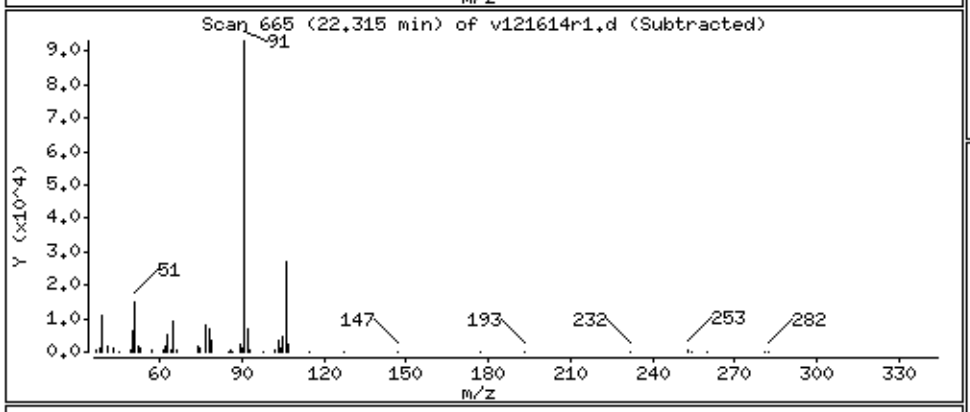
Column phase: RTx-624

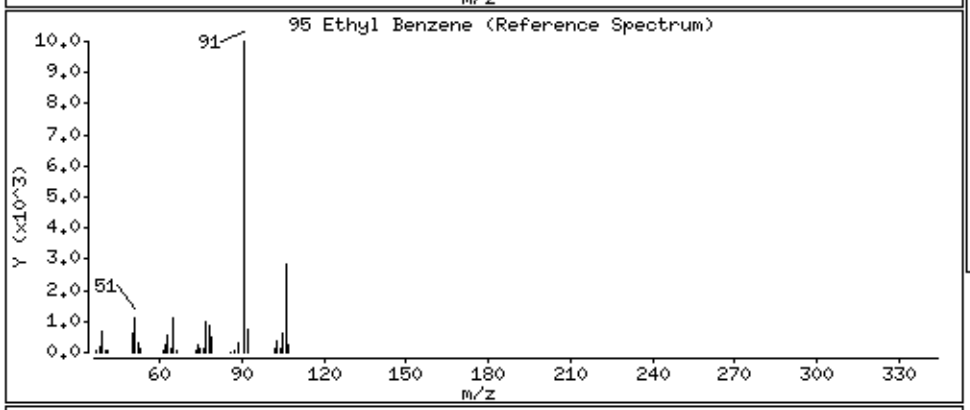
Column diameter: 0.32

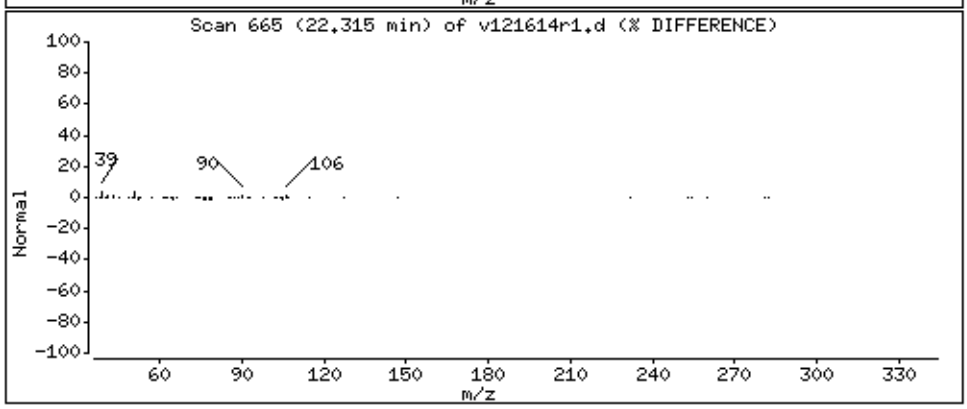
95 Ethyl Benzene

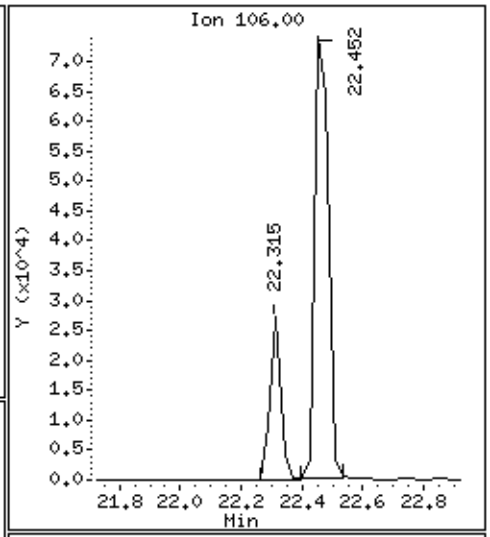
Concentration: 2.482 PPBV

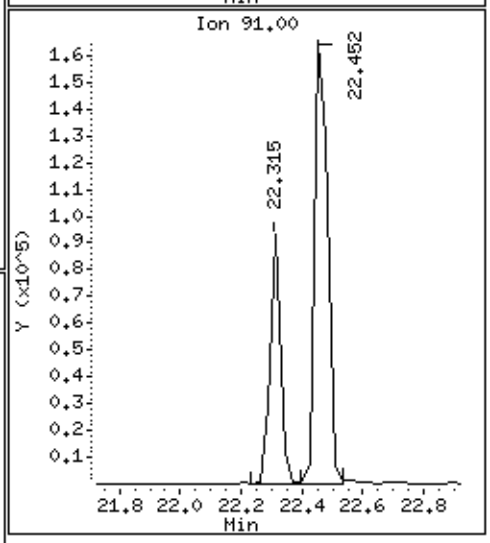


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

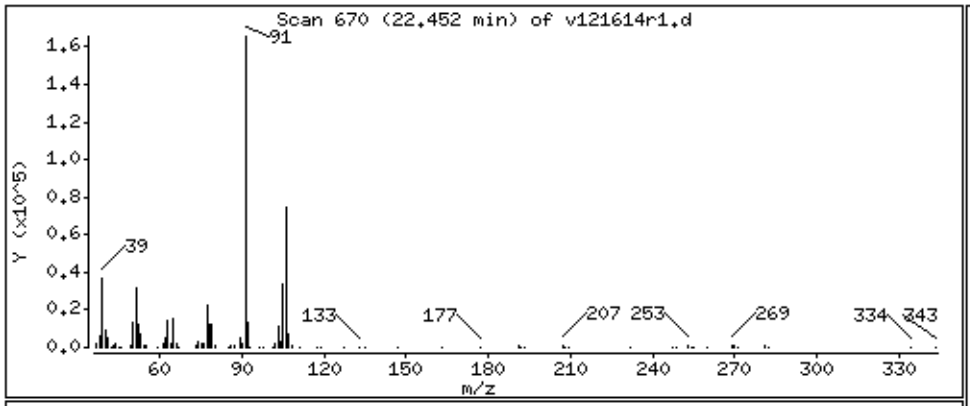
Operator: sn

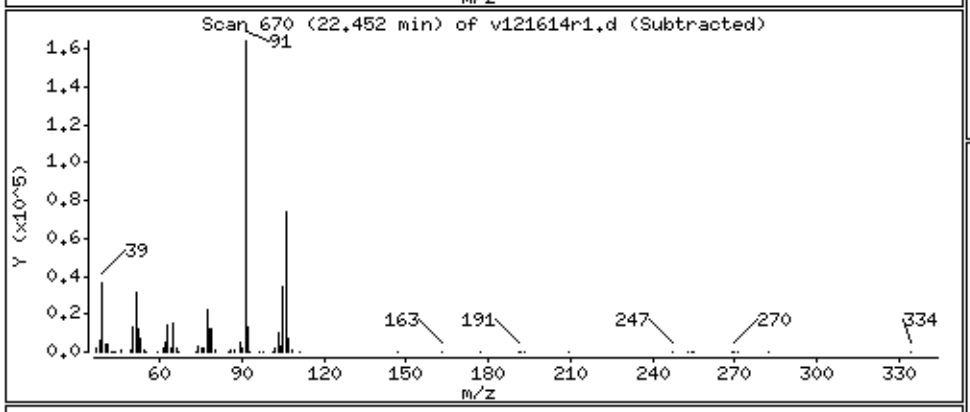
Column phase: RTx-624

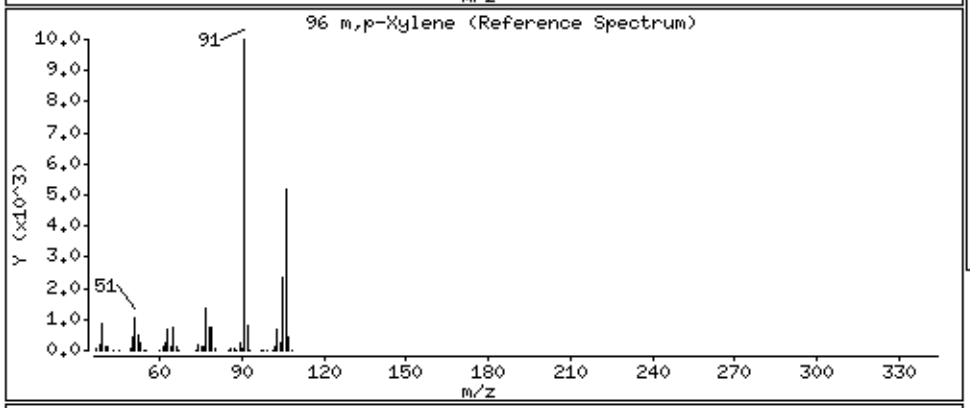
Column diameter: 0.32

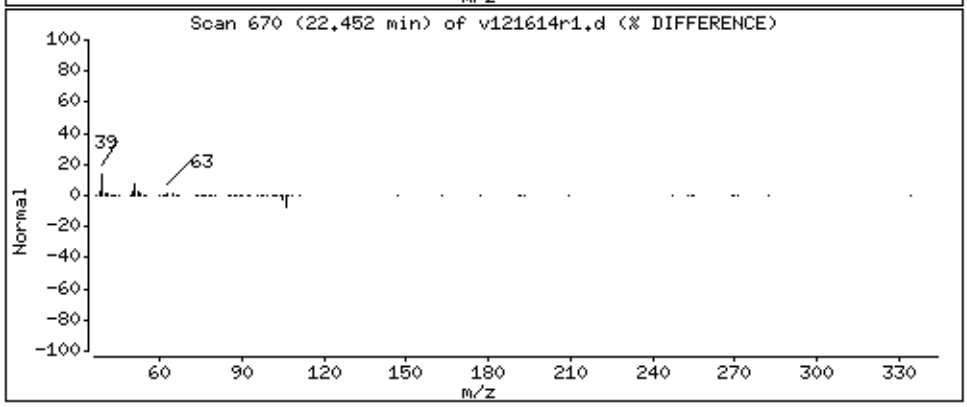
96 m,p-Xylene

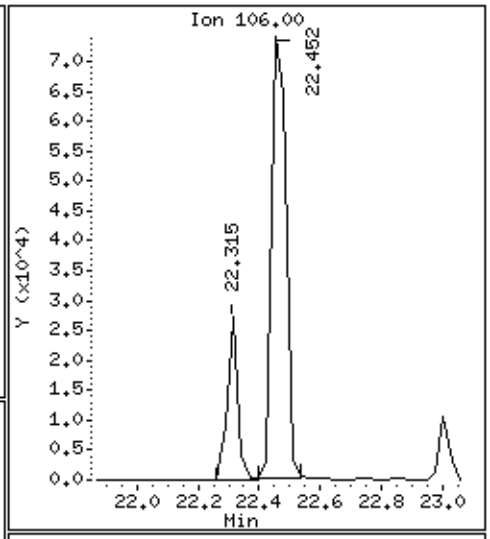
Concentration: 8.946 PPBV

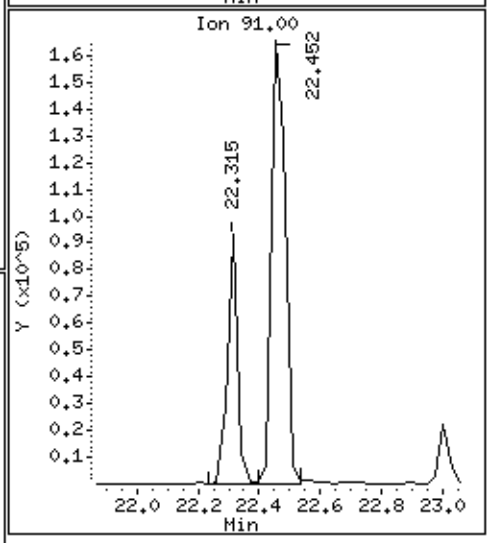


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

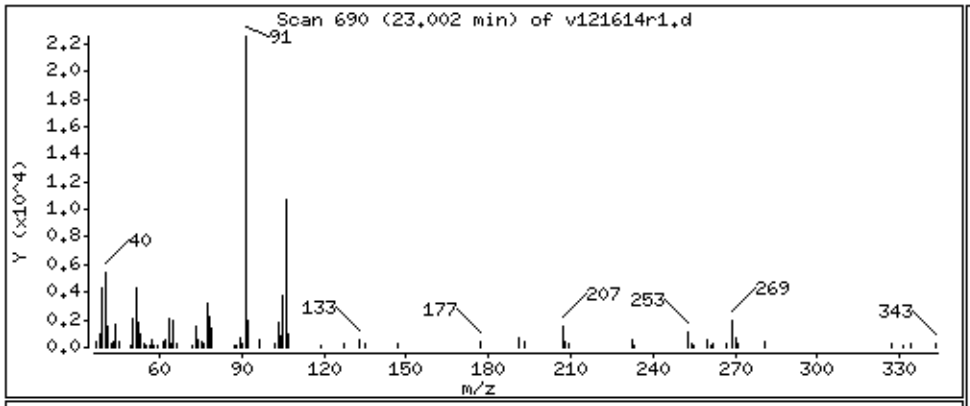
Operator: sn

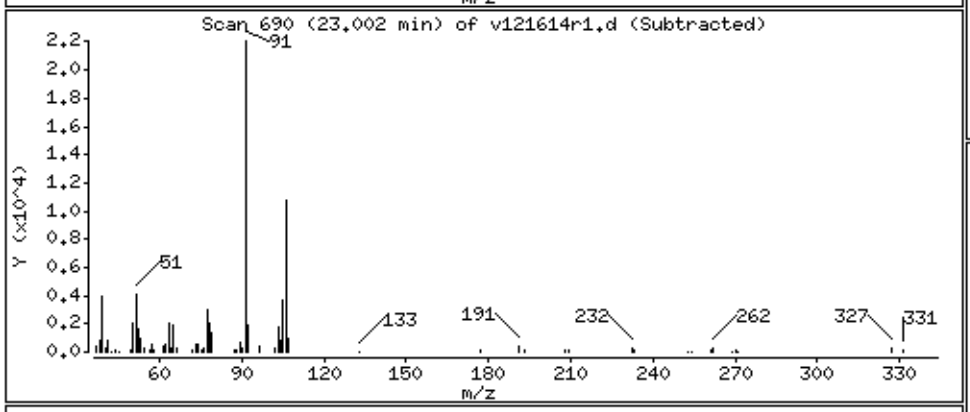
Column phase: RTx-624

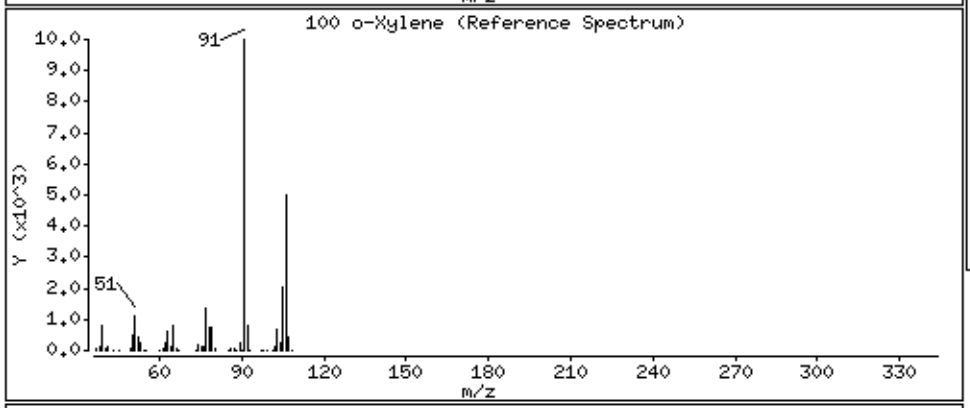
Column diameter: 0.32

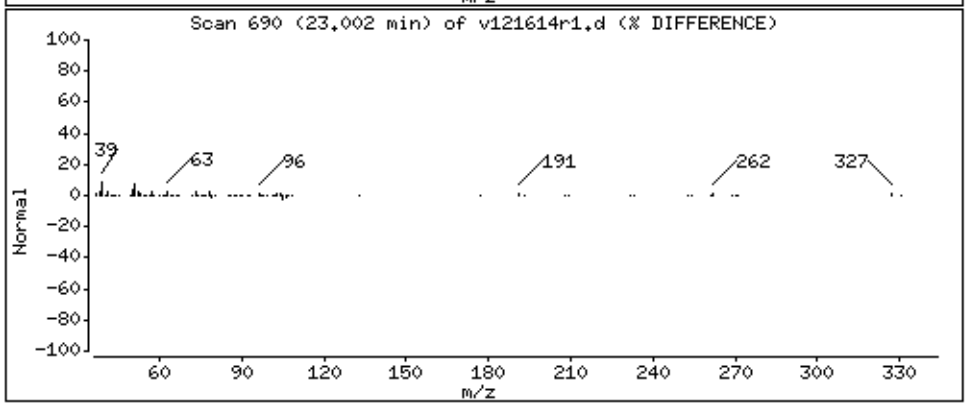
100 o-Xylene

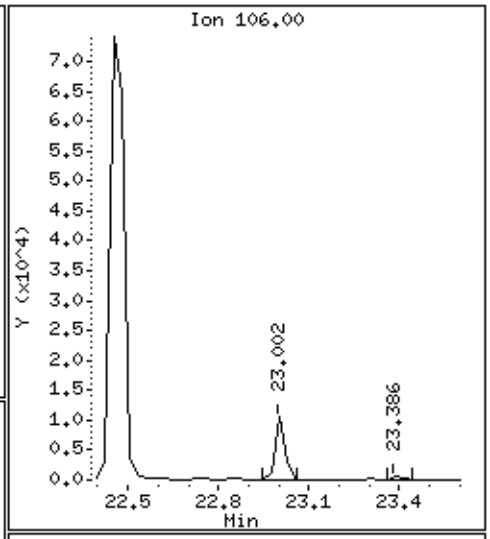
Concentration: 0.9951 PPBV

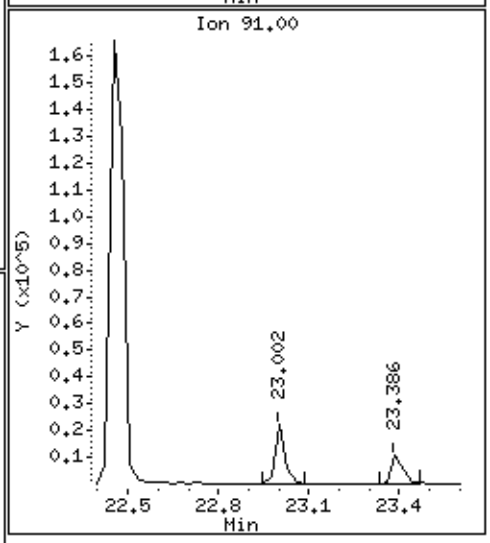


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

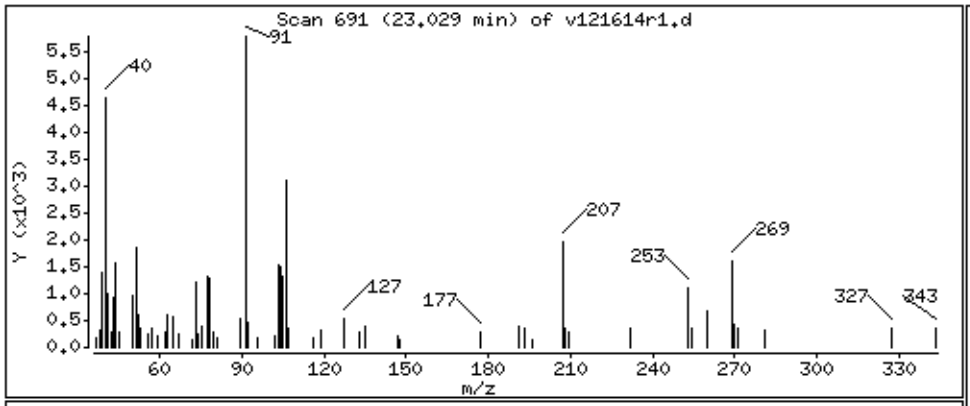
Operator: sn

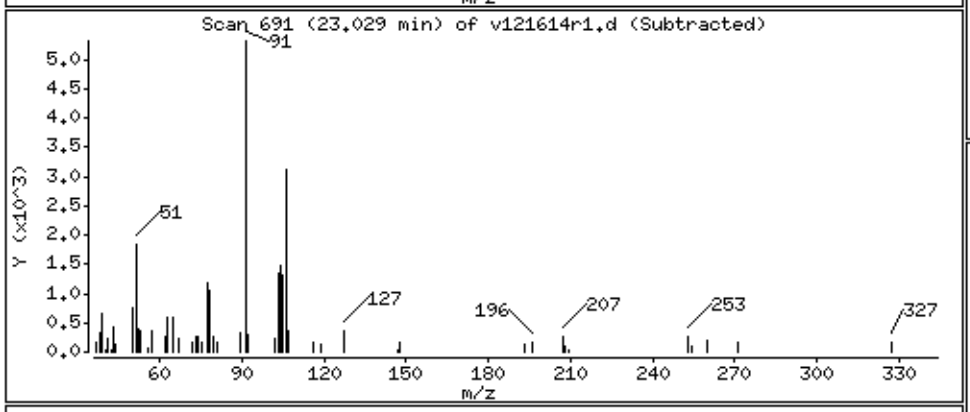
Column phase: RTx-624

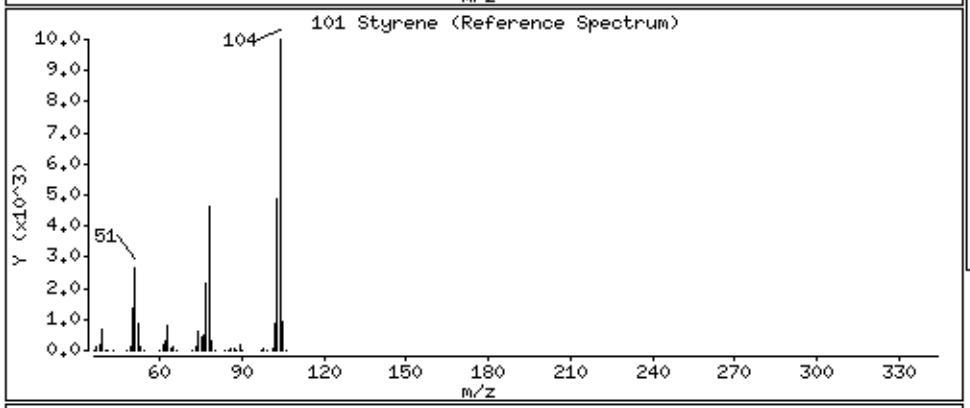
Column diameter: 0.32

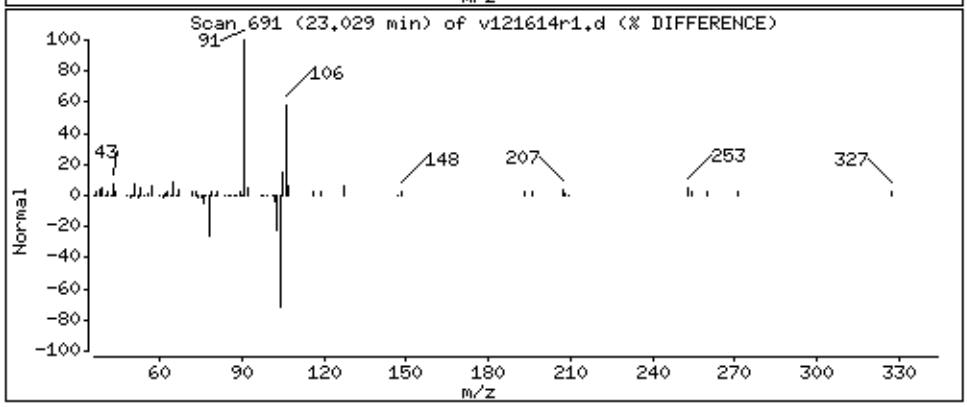
101 Styrene

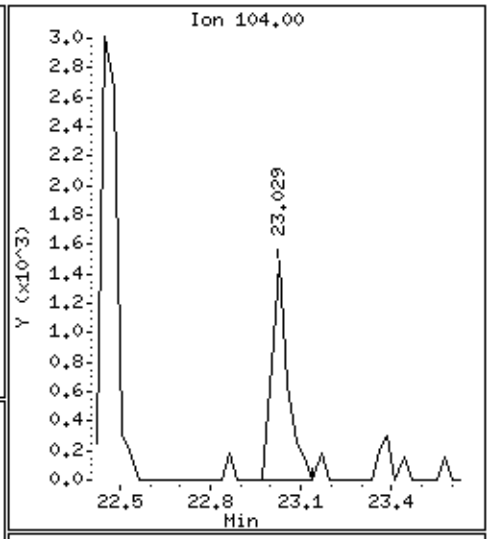
Concentration: 0.1508 PPBV

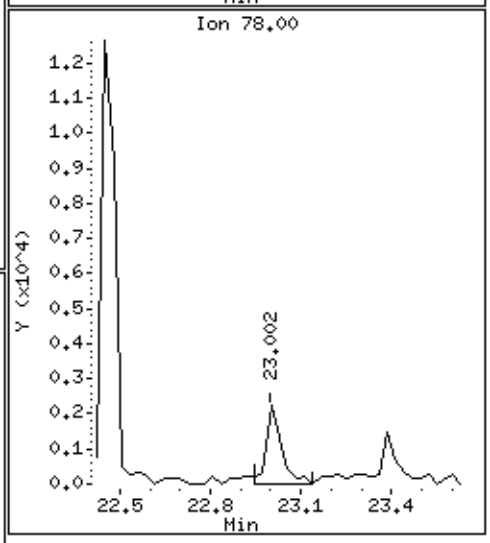


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d



Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

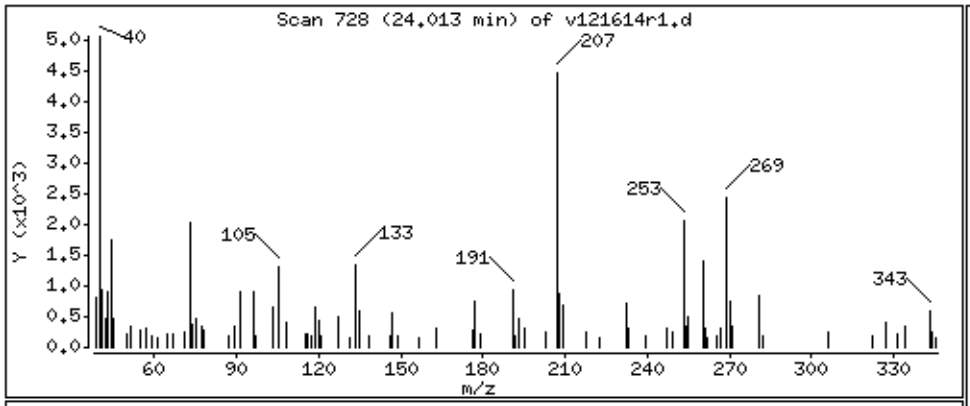
Operator: sn

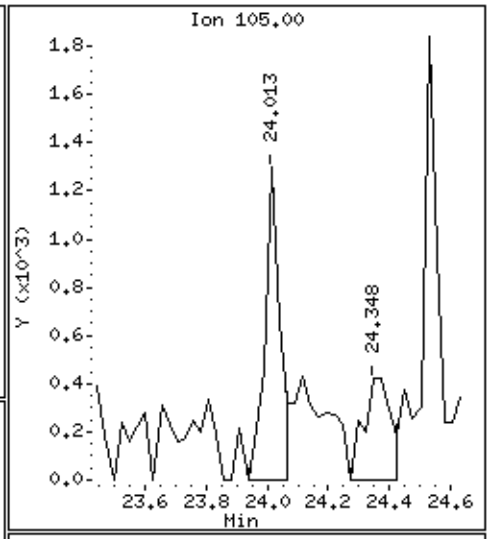
Column phase: RTx-624

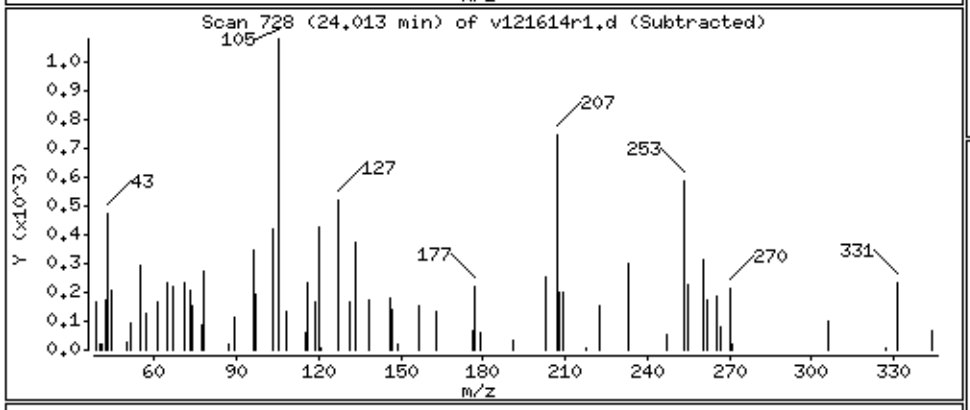
Column diameter: 0.32

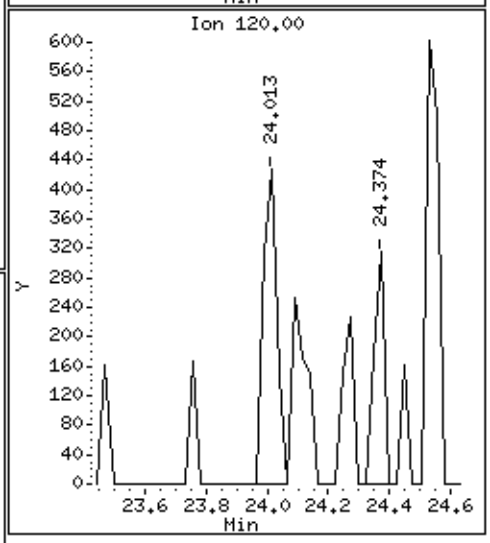
113 4-Ethyltoluene

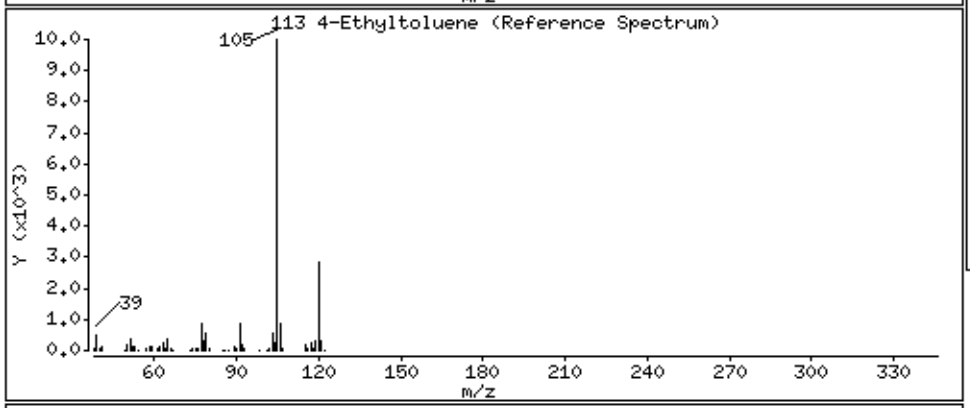
Concentration: 0.09668 PPBV

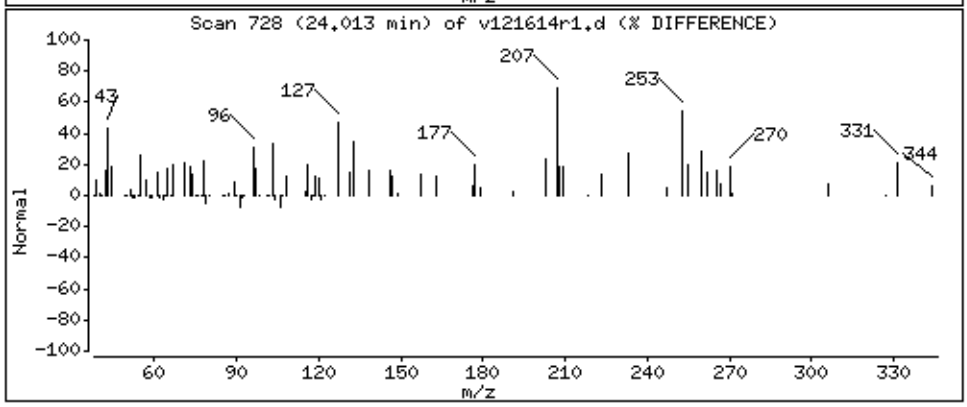


Data File: /chem/msdv.i/16Dec2014.b/v121614r1.d

Date : 16-DEC-2014 17:37

Client ID:

Instrument: msdv.i

Sample Info: 250ml #1651

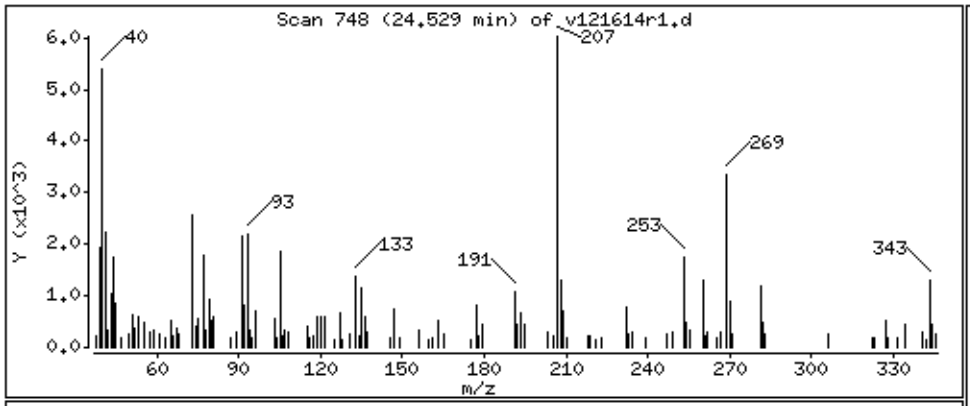
Operator: sn

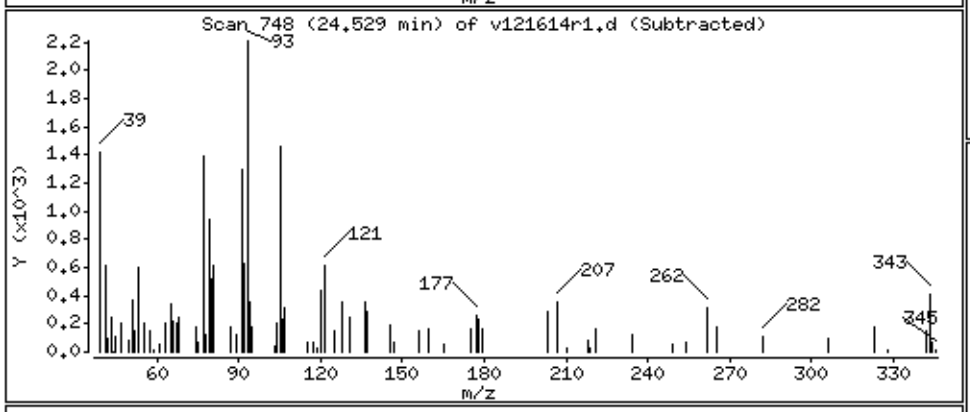
Column phase: RTx-624

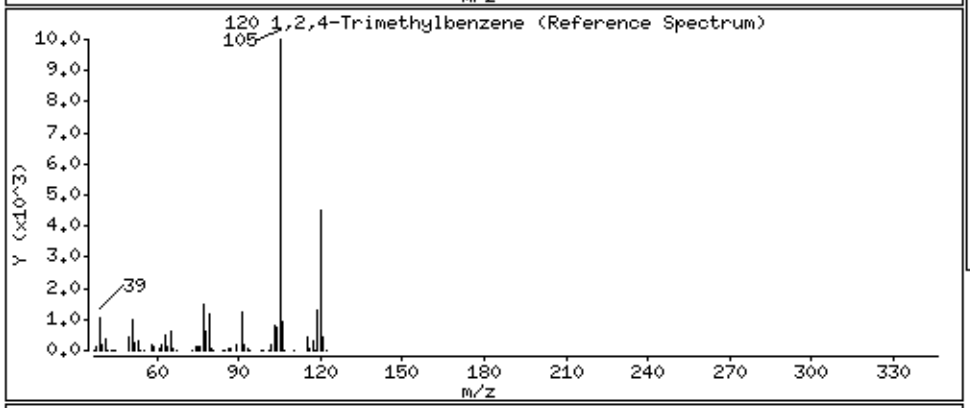
Column diameter: 0.32

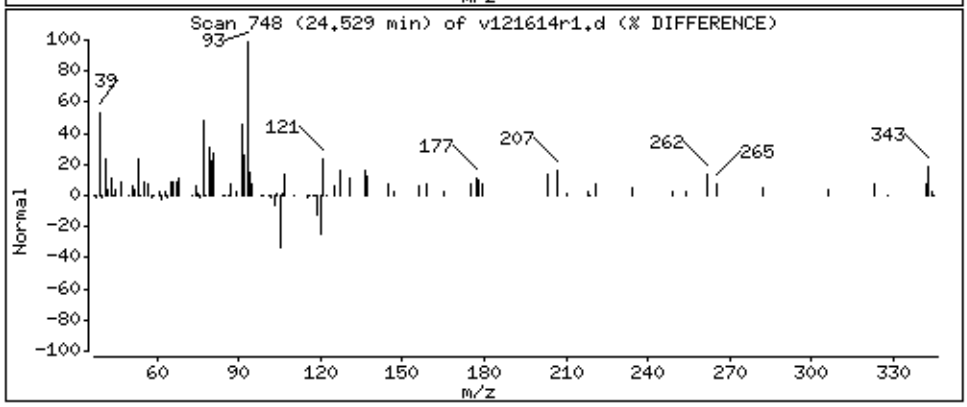
120 1,2,4-Trimethylbenzene

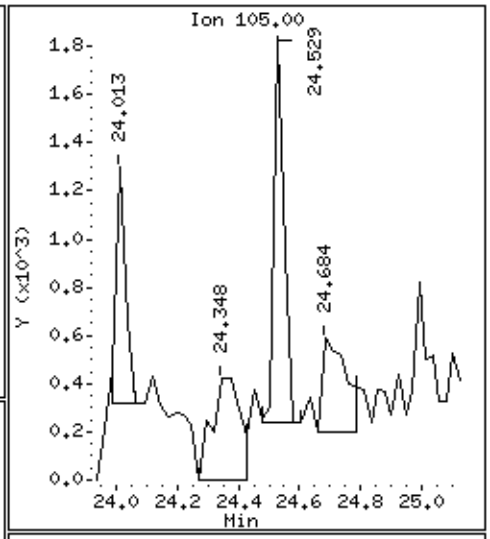
Concentration: 0.1168 PPBV

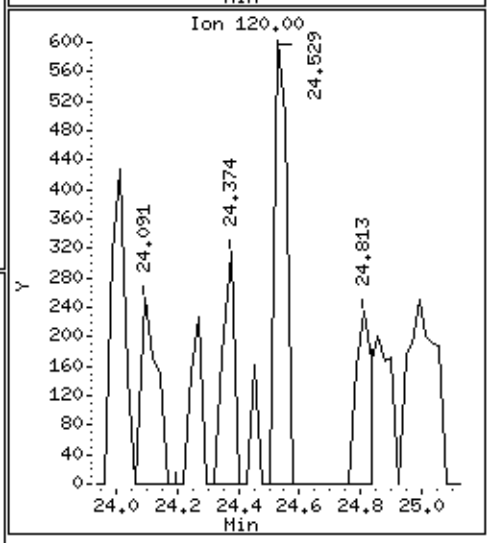


eurofins | Air Toxics

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: BSIA-9 (2014)**

**Lab ID#: 1412151AR1-05A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | 0.51 J | 4.0 | 2.5 J |
| Chloromethane | 0.80 | 0.97 | 1.7 | 2.0 |
| Freon 11 | 0.16 | 0.19 | 0.90 | 1.1 |
| Ethanol | 0.80 | 62 J0 | 1.5 | 120 J0 |
| Freon 113 | 0.16 | 0.068 J | 1.2 | 0.52 J |
| Acetone | 0.80 | 42 | 1.9 | 100 |
| 2-Propanol | 0.80 | 28 | 2.0 | 70 |
| Methylene Chloride | 0.32 | 9.4 | 1.1 | 33 |
| Methyl tert-butyl ether | 0.16 | 0.22 | 0.58 | 0.81 |
| Hexane | 0.16 | 0.20 | 0.57 | 0.70 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 0.82 | 2.4 | 2.4 |
| Tetrahydrofuran | 0.80 | 0.59 J | 2.4 | 1.7 J |
| Chloroform | 0.16 | 0.097 J | 0.79 | 0.47 J |
| Carbon Tetrachloride | 0.16 | 0.098 J | 1.0 | 0.62 J |
| 2,2,4-Trimethylpentane | 0.80 | 0.74 J | 3.8 | 3.5 J |
| Benzene | 0.16 | 0.15 J | 0.51 | 0.47 J |
| Heptane | 0.16 | 0.44 | 0.66 | 1.8 |
| 4-Methyl-2-pentanone | 0.16 | 8.8 | 0.66 | 36 |
| Toluene | 0.16 | 19 | 0.61 | 72 |
| 2-Hexanone | 0.80 | 0.12 J | 3.3 | 0.51 J |
| Ethyl Benzene | 0.16 | 2.6 | 0.70 | 11 |
| m,p-Xylene | 0.16 | 9.3 | 0.70 | 40 |
| o-Xylene | 0.16 | 0.93 | 0.70 | 4.0 |
| Styrene | 0.16 | 0.17 | 0.68 | 0.72 |
| 4-Ethyltoluene | 0.16 | 0.069 J | 0.79 | 0.34 J |
| 1,2,4-Trimethylbenzene | 0.16 | 0.13 J | 0.79 | 0.66 J |

eurofins | Air Toxics

**Client Sample ID: BSIA-9 (2014)**

**Lab ID#: 1412151AR1-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121615r1** | **Date of Collection:** | **12/9/14 10:50:00 AM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **12/16/14 06:14 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | 0.51 J | 4.0 | 2.5 J |
| Freon 114 | 0.16 | Not Detected | 1.1 | Not Detected |
| Chloromethane | 0.80 | 0.97 | 1.7 | 2.0 |
| Vinyl Chloride | 0.16 | Not Detected | 0.41 | Not Detected |
| 1,3-Butadiene | 0.16 | Not Detected | 0.36 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.16 | 0.19 | 0.90 | 1.1 |
| Ethanol | 0.80 | 62 J0 | 1.5 | 120 J0 |
| Freon 113 | 0.16 | 0.068 J | 1.2 | 0.52 J |
| 1,1-Dichloroethene | 0.16 | Not Detected | 0.64 | Not Detected |
| Acetone | 0.80 | 42 | 1.9 | 100 |
| 2-Propanol | 0.80 | 28 | 2.0 | 70 |
| Carbon Disulfide | 0.80 | Not Detected | 2.5 | Not Detected |
| 3-Chloropropene | 0.80 | Not Detected | 2.5 | Not Detected |
| Methylene Chloride | 0.32 | 9.4 | 1.1 | 33 |
| Methyl tert-butyl ether | 0.16 | 0.22 | 0.58 | 0.81 |
| trans-1,2-Dichloroethene | 0.16 | Not Detected | 0.64 | Not Detected |
| Hexane | 0.16 | 0.20 | 0.57 | 0.70 |
| 1,1-Dichloroethane | 0.16 | Not Detected | 0.65 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 0.82 | 2.4 | 2.4 |
| cis-1,2-Dichloroethene | 0.16 | Not Detected | 0.64 | Not Detected |
| Tetrahydrofuran | 0.80 | 0.59 J | 2.4 | 1.7 J |
| Chloroform | 0.16 | 0.097 J | 0.79 | 0.47 J |
| 1,1,1-Trichloroethane | 0.16 | Not Detected | 0.88 | Not Detected |
| Cyclohexane | 0.16 | Not Detected | 0.55 | Not Detected |
| Carbon Tetrachloride | 0.16 | 0.098 J | 1.0 | 0.62 J |
| 2,2,4-Trimethylpentane | 0.80 | 0.74 J | 3.8 | 3.5 J |
| Benzene | 0.16 | 0.15 J | 0.51 | 0.47 J |
| 1,2-Dichloroethane | 0.16 | Not Detected | 0.65 | Not Detected |
| Heptane | 0.16 | 0.44 | 0.66 | 1.8 |
| Trichloroethene | 0.16 | Not Detected | 0.86 | Not Detected |
| 1,2-Dichloropropane | 0.16 | Not Detected | 0.74 | Not Detected |
| 1,4-Dioxane | 0.16 | Not Detected | 0.58 | Not Detected |
| Bromodichloromethane | 0.16 | Not Detected | 1.1 | Not Detected |
| cis-1,3-Dichloropropene | 0.16 | Not Detected | 0.73 | Not Detected |
| 4-Methyl-2-pentanone | 0.16 | 8.8 | 0.66 | 36 |
| Toluene | 0.16 | 19 | 0.61 | 72 |
| trans-1,3-Dichloropropene | 0.16 | Not Detected | 0.73 | Not Detected |
| 1,1,2-Trichloroethane | 0.16 | Not Detected | 0.88 | Not Detected |
| Tetrachloroethene | 0.16 | Not Detected | 1.1 | Not Detected |
| 2-Hexanone | 0.80 | 0.12 J | 3.3 | 0.51 J |

eurofins | Air Toxics

**Client Sample ID: BSIA-9 (2014)**

**Lab ID#: 1412151AR1-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121615r1** | **Date of Collection:** | **12/9/14 10:50:00 AM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **12/16/14 06:14 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.16 | Not Detected | 1.4 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.16 | Not Detected | 1.2 | Not Detected |
| Chlorobenzene | 0.16 | Not Detected | 0.74 | Not Detected |
| Ethyl Benzene | 0.16 | 2.6 | 0.70 | 11 |
| m,p-Xylene | 0.16 | 9.3 | 0.70 | 40 |
| o-Xylene | 0.16 | 0.93 | 0.70 | 4.0 |
| Styrene | 0.16 | 0.17 | 0.68 | 0.72 |
| Bromoform | 0.16 | Not Detected | 1.7 | Not Detected |
| Cumene | 0.16 | Not Detected | 0.79 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.16 | Not Detected | 1.1 | Not Detected |
| Propylbenzene | 0.16 | Not Detected | 0.79 | Not Detected |
| 4-Ethyltoluene | 0.16 | 0.069 J | 0.79 | 0.34 J |
| 1,3,5-Trimethylbenzene | 0.16 | Not Detected | 0.79 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.16 | 0.13 J | 0.79 | 0.66 J |
| 1,3-Dichlorobenzene | 0.16 | Not Detected UJ | 0.97 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.16 | Not Detected UJ | 0.97 | Not Detected UJ |
| alpha-Chlorotoluene | 0.80 | Not Detected UJ | 4.2 | Not Detected UJ |
| 1,2-Dichlorobenzene | 0.16 | Not Detected UJ | 0.97 | Not Detected UJ |
| 1,2,4-Trichlorobenzene | 0.80 | Not Detected | 6.0 | Not Detected |
| Hexachlorobutadiene | 0.80 | Not Detected UJ | 8.6 | Not Detected UJ |
| Naphthalene | 0.80 | Not Detected | 4.2 | Not Detected |

J = Estimated value.
J0 = Estimated value due to bias in the CCV.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: 6 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121615r1.d
Lab Smp Id: 1412151AR1-05A
Inj Date : 16-DEC-2014 18:14
Operator : sn Inst ID: msdv.i
Smp Info : 250ml #34440
Misc Info : 5.0"Hg -> 5.0psi
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.933 (1.000) | 130 | 90136 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.933 (1.000) | 128 | 71462 | | | 47.55- 107.55 | 79.28 |
| 15.934 | 15.933 (1.000) | 49 | 242554 | | | 213.64- 273.64 | 269.10 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 417430 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 67820 | | | 0.00- 46.17 | 16.25 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 329278 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 210470 | | | 28.56- 88.56 | 63.92 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 185610 | 5.61093 | 5.611 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 91046 | | | 28.37- 88.37 | 49.05 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.857 | 19.879 (1.147) | 98 | 416069 | 5.18426 | 5.184 | 80.00- 120.00 | 100.00 |
| 19.857 | 19.879 (1.147) | 70 | 54886 | | | 0.00- 41.90 | 13.19 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.857  19.879 (1.147)   100    263181                    34.60-  94.60    63.25
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    133461 4.71301    4.713  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    196209                  113.85- 173.85   147.02
 23.704  23.704 (1.067)   176    133649                    68.89- 128.89   100.14
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.202 (0.329)    85     26569 0.31462   0.5065  80.00- 120.00   100.00(a)
  5.278   5.202 (0.331)    87      7496                     1.57-  61.57    28.21
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.128   7.052 (0.447)    50     30765 0.60453   0.9733  80.00- 120.00   100.00
  7.128   7.052 (0.447)    52     10766                     1.81-  61.81    34.99
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.184  11.183 (0.702)   101     10249 0.11791   0.1898  80.00- 120.00   100.00
 11.160  11.183 (0.700)   103      7894                    34.11-  94.11    77.02
-------------------------------------------------------------------------------
   24 Ethanol                                       CAS #: 64-17-5
 12.102  12.101 (0.760)    45    712618 38.6733   62.264  80.00- 120.00   100.00
 12.102  12.101 (0.760)    46    275066                     8.51-  68.51    38.60
 12.102  12.101 (0.760)    43    150833                     0.00-  54.10    21.17
-------------------------------------------------------------------------------
   28 Freon 113                                     CAS #: 76-13-1
 12.569  12.568 (0.789)   151      2205 0.04214  0.06785  80.00- 120.00   100.00(a)
 12.596  12.568 (0.791)   153       873                    33.65-  93.65    39.59
 12.569  12.568 (0.789)   101      2180                    96.37- 156.37    98.87
-------------------------------------------------------------------------------
   31 Acetone                                       CAS #: 67-64-1
 12.816  12.816 (0.804)    58    562168 26.3974   42.500  80.00- 120.00   100.00
 12.816  12.816 (0.804)    43   2534143                  413.15- 473.15   450.78
-------------------------------------------------------------------------------
   34 2-Propanol                                    CAS #: 67-63-0
 13.173  13.173 (0.827)    45   1745931 17.7045   28.504  80.00- 120.00   100.00
 13.173  13.173 (0.827)    43    342141                     0.00-  50.74    19.60
 13.173  13.173 (0.827)    59     48765                     0.00-  32.83     2.79
-------------------------------------------------------------------------------
   37 Methylene Chloride                            CAS #: 75-09-2
 13.640  13.640 (0.856)    84    160755 5.86640    9.445  80.00- 120.00   100.00
 13.640  13.640 (0.856)    49    375991                  212.37- 272.37   233.89
 13.640  13.640 (0.856)    51    109028                    43.31- 103.31    67.82
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.997  13.996 (0.878)    73     13763 0.13999   0.2254  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   39 MTBE (continued)
 13.942  13.996 (0.875)    57     11669                     2.99-  62.99    84.79
 13.942  13.996 (0.875)    41     13881                    12.12-  72.12   100.86
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57      9720 0.12356   0.1989  80.00- 120.00   100.00
 14.381  14.381 (0.903)    43     14538                    57.65- 117.65   149.57
 14.408  14.381 (0.904)    86       846                     0.00-  40.67     8.70
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.571 (0.979)    72      8074 0.50937   0.8201  80.00- 120.00   100.00
 15.592  15.571 (0.979)    43     87684                   794.80- 854.80  1086.00
 15.592  15.571 (0.979)    57      4225                    18.01-  78.01    52.33
-------------------------------------------------------------------------------
   53 Tetrahydrofuran                               CAS #: 109-99-9
 15.934  15.933 (1.000)    42     29973 0.36695   0.5908  80.00- 120.00   100.00(a)
 15.934  15.933 (1.000)    71      5839                     0.00-  49.03    19.48
 15.934  15.933 (1.000)    72      7018                     0.00-  51.35    23.41
-------------------------------------------------------------------------------
   55 Chloroform                                    CAS #: 67-66-3
 15.995  15.995 (1.004)    83      4575 0.06023  0.09697  80.00- 120.00   100.00(a)
 15.995  15.995 (1.004)    85      2786                    33.33-  93.33    60.90
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                          CAS #: 56-23-5
 16.458  16.457 (1.033)   119      4630 0.06085  0.09797  80.00- 120.00   100.00(a)
 16.427  16.457 (1.031)   117      5389                    69.67- 129.67   116.39
                   Sum of Peak Concentrations =  0.09797
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.728  16.728 (1.050)    56     38365 0.46082   0.7419  80.00- 120.00   100.00(a)
 16.728  16.728 (1.050)    57    108089                   258.69- 318.69   281.74
 16.728  16.728 (1.050)    41     38324                    79.91- 139.91    99.89
-------------------------------------------------------------------------------
   64 Benzene                                       CAS #: 71-43-2
 16.756  16.756 (0.968)    78     11331 0.09198   0.1481  80.00- 120.00   100.00(a)
 16.756  16.756 (0.968)    77      2519                     0.00-  53.73    22.23
-------------------------------------------------------------------------------
   69 Heptane                                       CAS #: 142-82-5
 16.975  16.948 (0.981)    57     14491 0.27294   0.4394  80.00- 120.00   100.00
 16.948  16.948 (0.979)   100      3267                     0.00-  51.27    22.55
 16.975  16.948 (0.981)    43     38202                   235.24- 295.24   263.63
-------------------------------------------------------------------------------
   79 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.588  19.587 (1.132)    43    946858 5.44558    8.767  80.00- 120.00   100.00
 19.588  19.587 (1.132)    58    250144                     0.00-  57.24    26.42
 19.588  19.587 (1.132)    85     79133                     0.00-  38.20     8.36
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 1623218 | 11.9376 | 19.220 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 935495 | | | 28.60- 88.60 | 57.63 |
| 87 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 21.045 | 21.044 (0.948) | 58 | 4509 | 0.07769 | 0.1251 | 80.00- 120.00 | 100.00(a) |
| 21.045 | 21.044 (0.948) | 43 | 6348 | | | 242.48- 302.48 | 140.79 |
| 0.000 | 21.044 (0.000) | 100 | 0 | | | 0.00- 43.88 | 0.00 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 79630 | 1.64071 | 2.642 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 249929 | | | 292.36- 352.36 | 313.86 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 276428 | 5.77610 | 9.300 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 570525 | | | 164.15- 224.15 | 206.39 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.002 | 23.001 (1.036) | 106 | 25699 | 0.57709 | 0.9291 | 80.00- 120.00 | 100.00 |
| 23.002 | 23.001 (1.036) | 91 | 56523 | | | 186.63- 246.63 | 219.94 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 6879 | 0.10559 | 0.1700 | 80.00- 120.00 | 100.00 |
| 23.002 | 23.029 (1.036) | 78 | 7590 | | | 28.70- 88.70 | 110.34 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.013 | 24.039 (1.081) | 105 | 3607 | 0.04262 | 0.06862 | 80.00- 120.00 | 100.00(a) |
| 24.013 | 24.039 (1.081) | 120 | 967 | | | 0.18- 60.18 | 26.81 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 4792 | 0.08374 | 0.1348 | 80.00- 120.00 | 100.00(a) |
| 24.529 | 24.529 (1.105) | 120 | 2482 | | | 19.27- 79.27 | 51.79 |

## QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121615r1.d
Lab Smp Id: 1412151AR1-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0"Hg -> 5.0psi

Calibration Date: 16-DEC-2014
Calibration Time: 08:42

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 90136 | -17.85 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 417430 | -6.30 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 329278 | -8.81 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1412151AR1-05A
Level: LOW
Operator: sn
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0"Hg -> 5.0psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.611 | 112.22 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.184 | 103.69 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.713 | 94.26 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

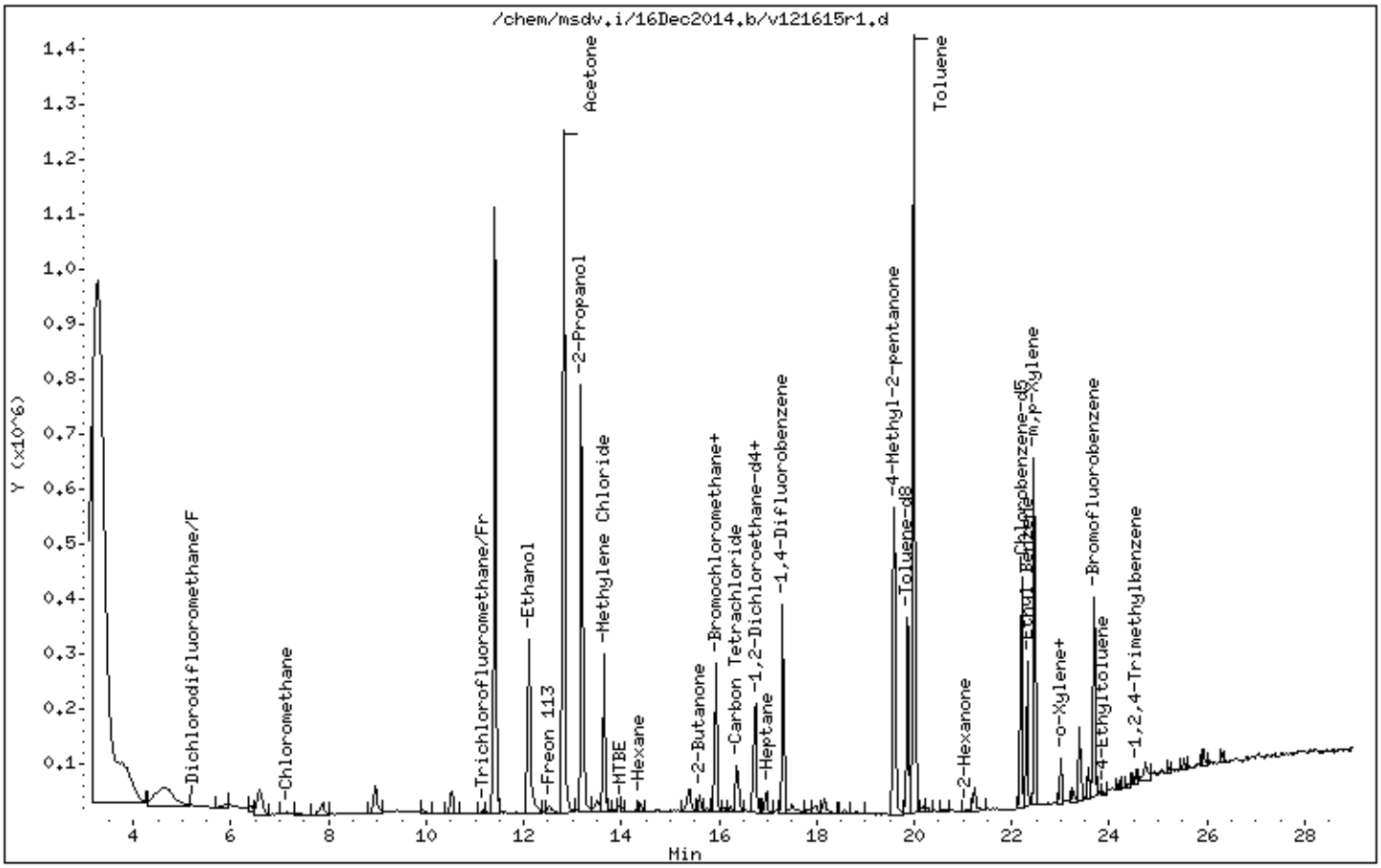
Instrument: msdv.i

Sample Info: 250ml #34440

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

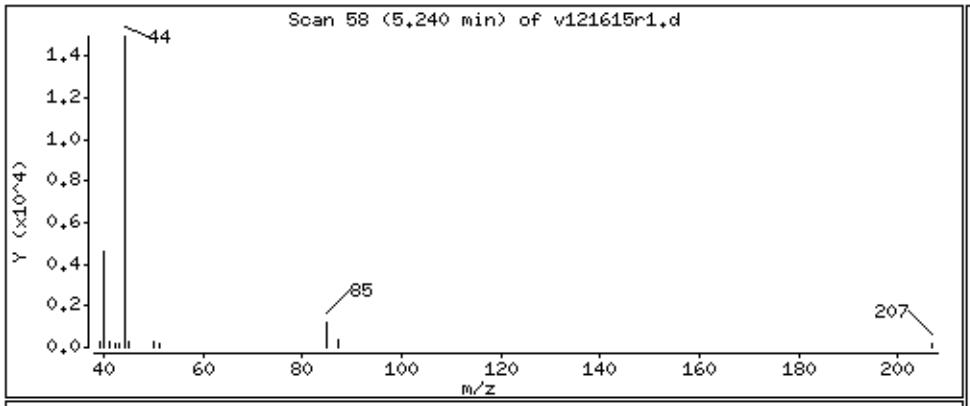
Operator: sn

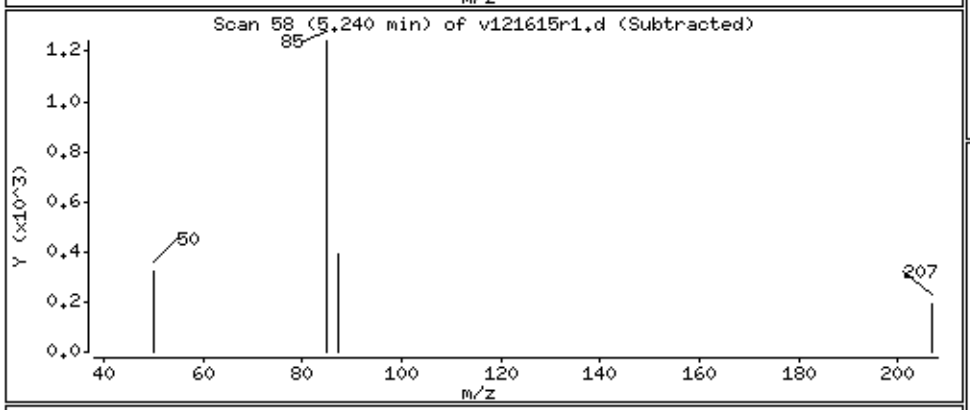
Column phase: RTx-624

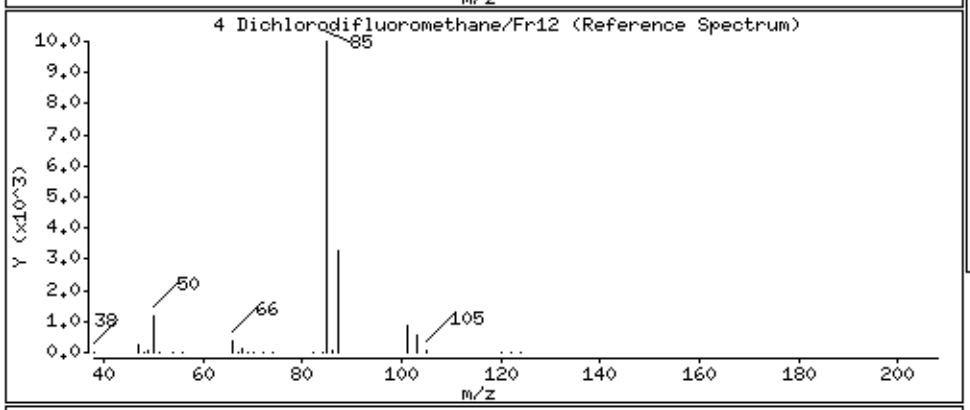
Column diameter: 0.32

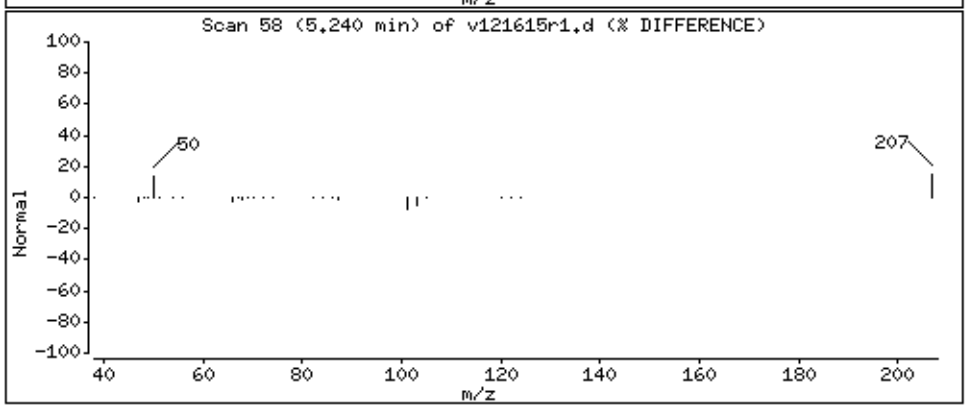
4 Dichlorodifluoromethane/Fr12

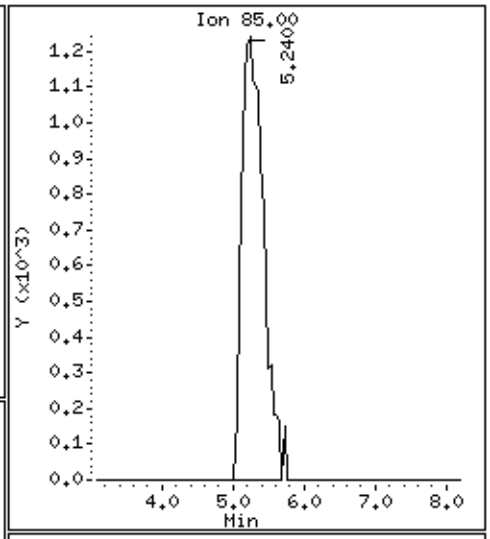
Concentration: 0.5065 PPBV

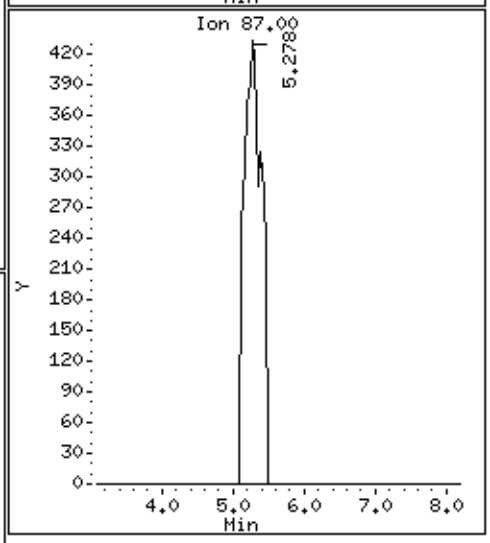


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

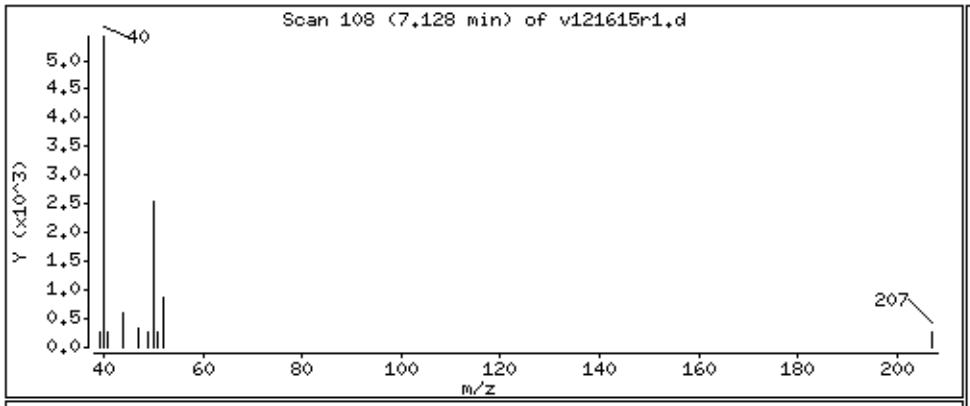
Operator: sn

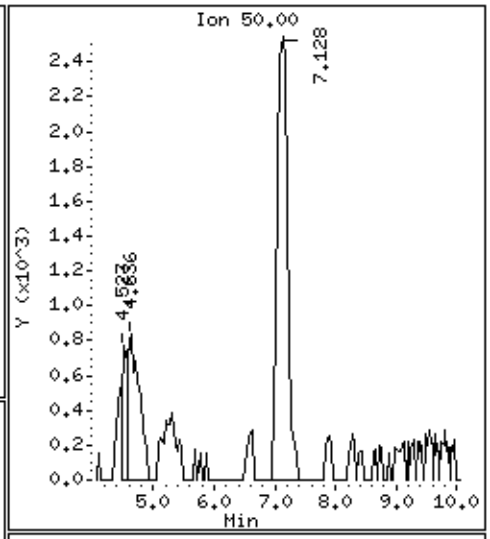
Column phase: RTx-624

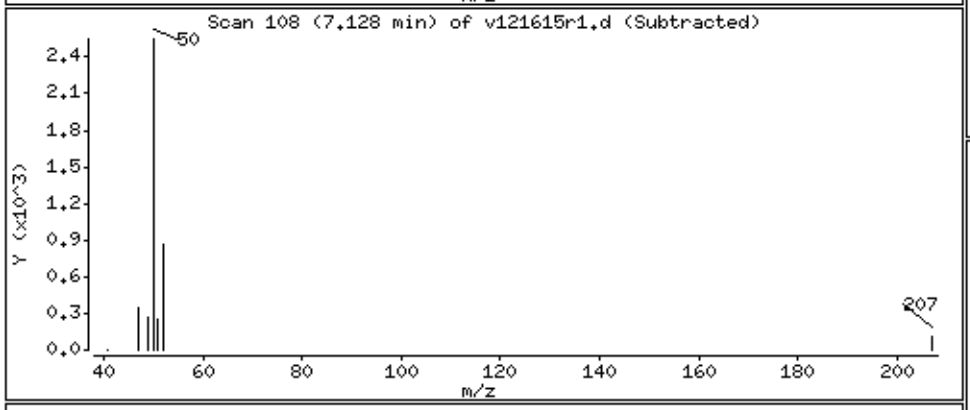
Column diameter: 0.32

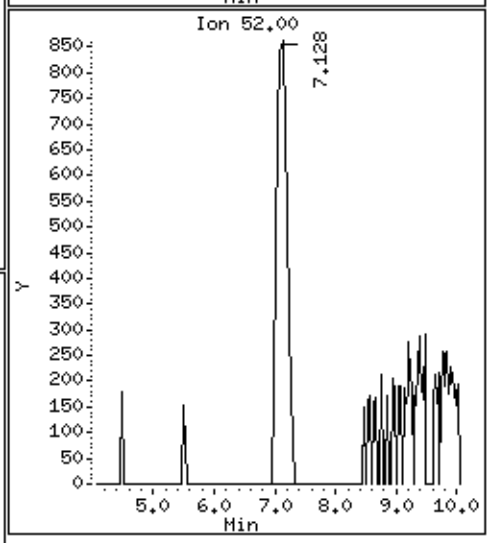
8 Chloromethane

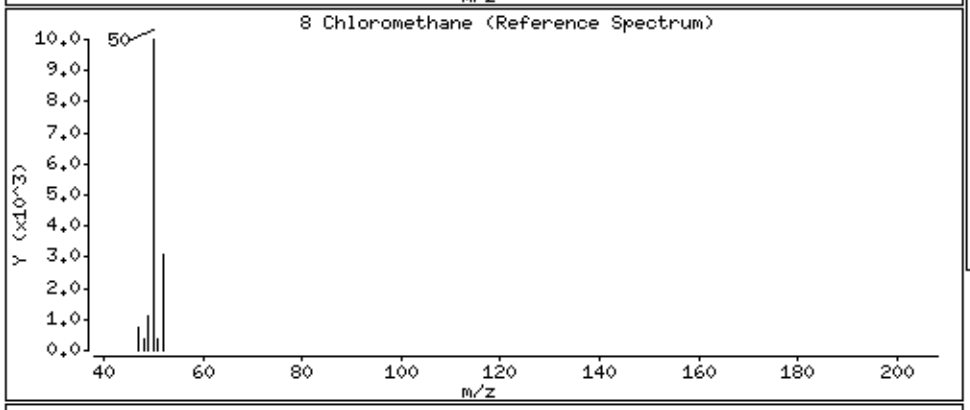
Concentration: 0.9733 PPBV

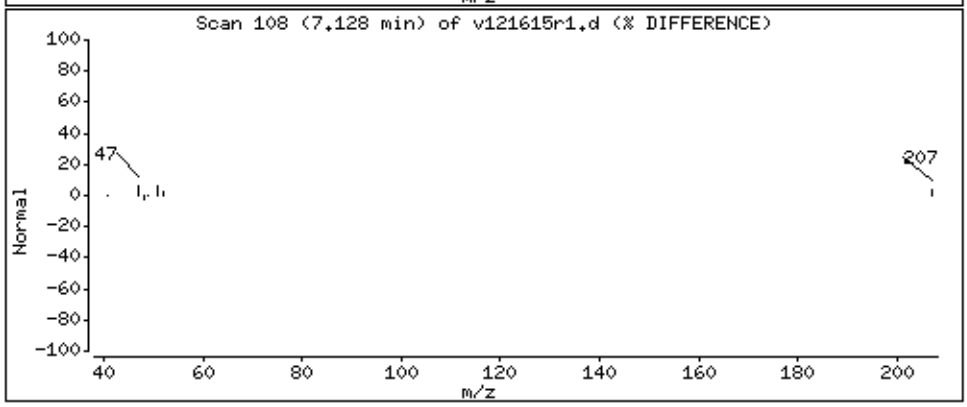


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

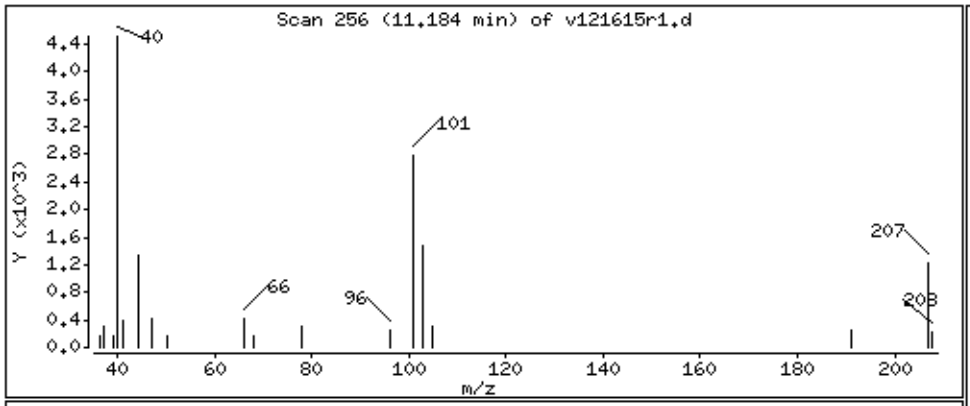
Operator: sn

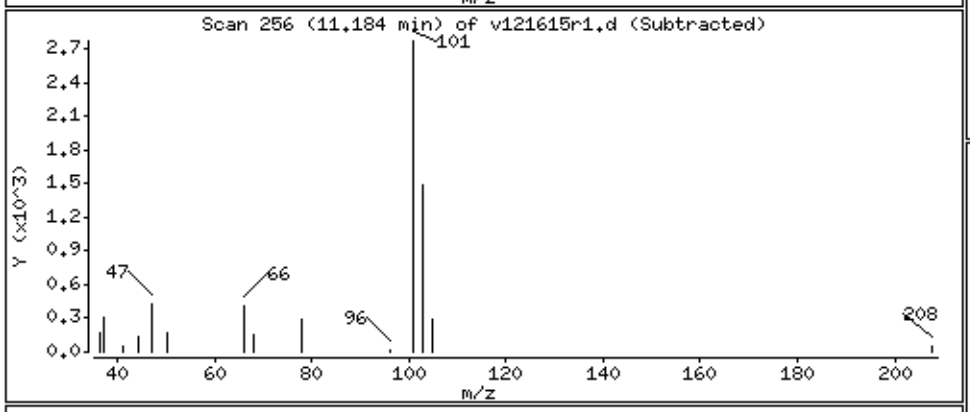
Column phase: RTx-624

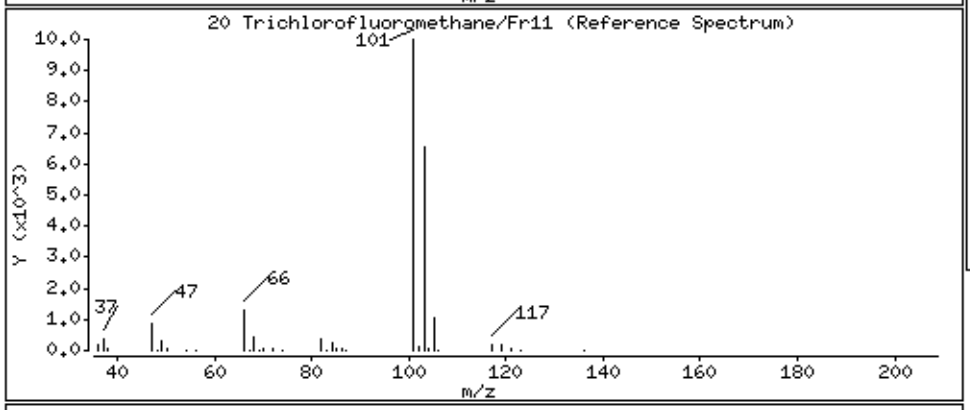
Column diameter: 0.32

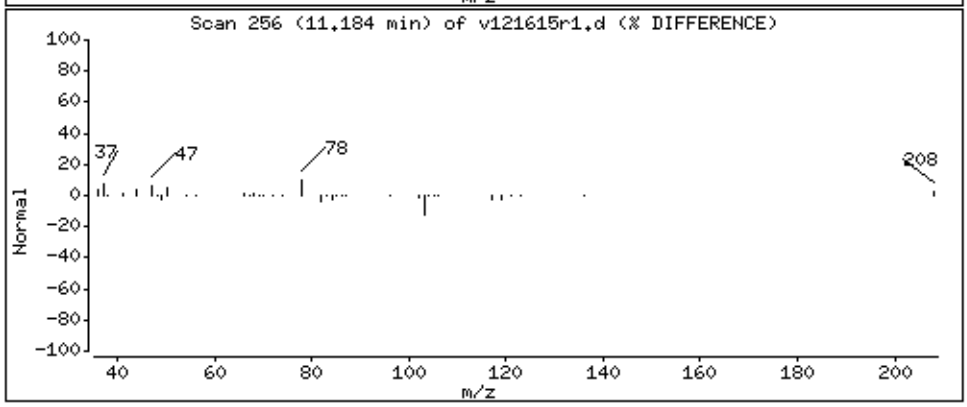
20 Trichlorofluoromethane/Fr11

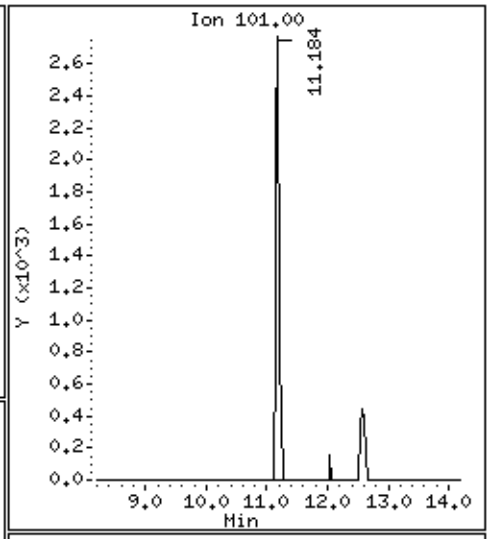
Concentration: 0.1898 PPBV

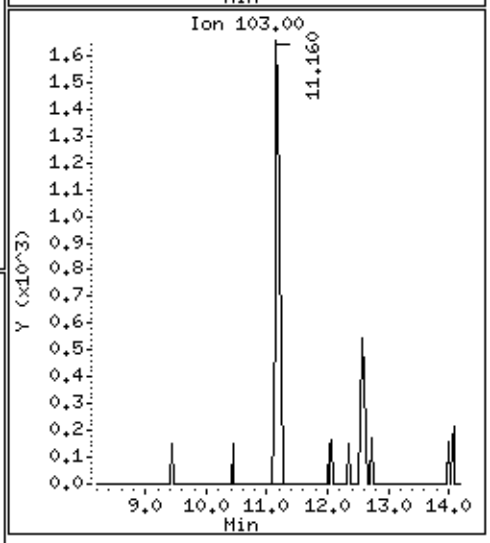


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

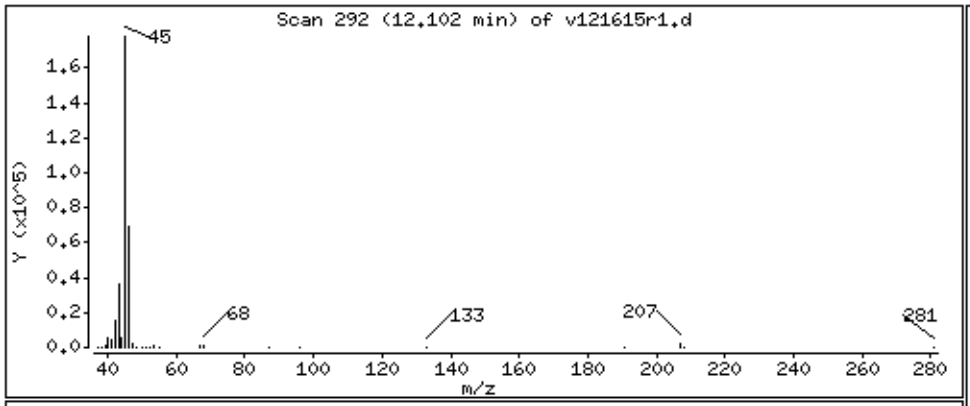
Operator: sn

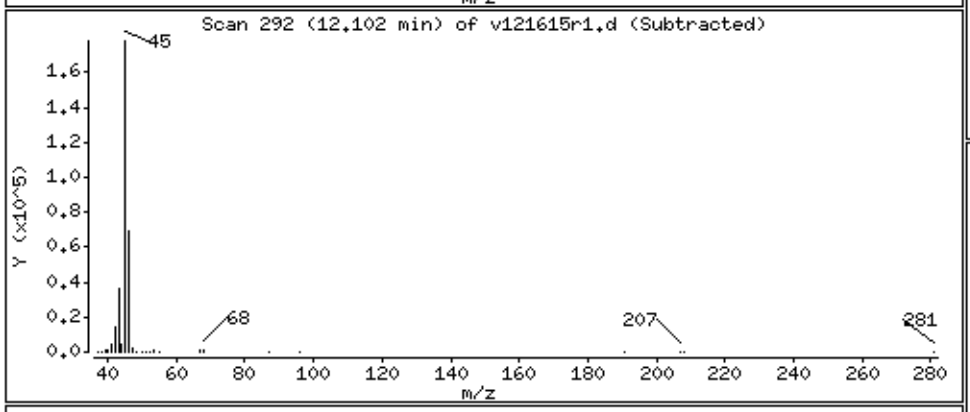
Column phase: RTx-624

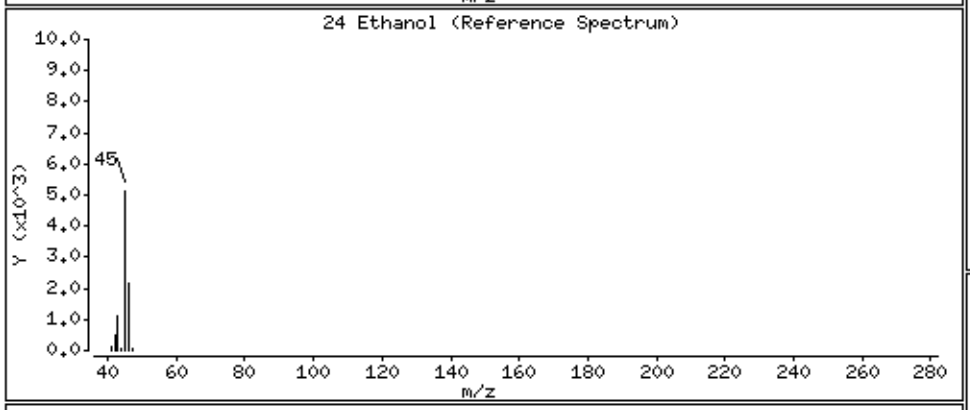
Column diameter: 0.32

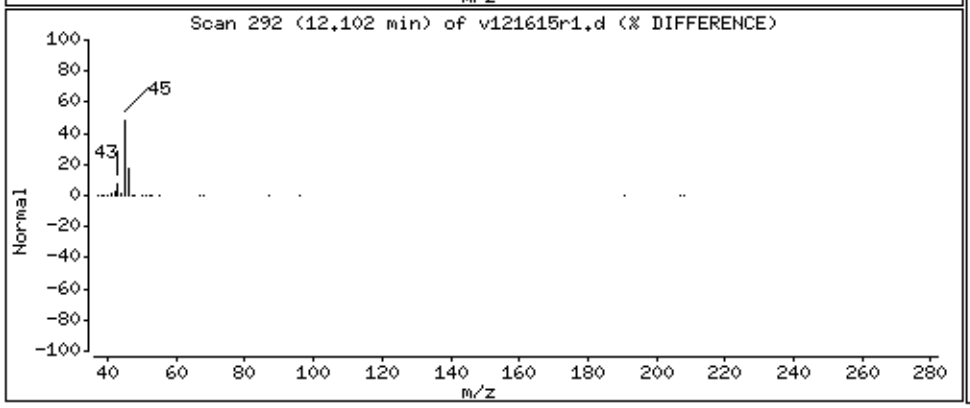
24 Ethanol

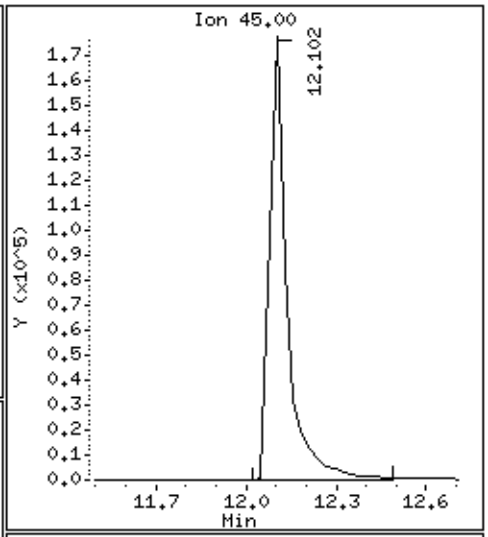
Concentration: 62.264 PPBV

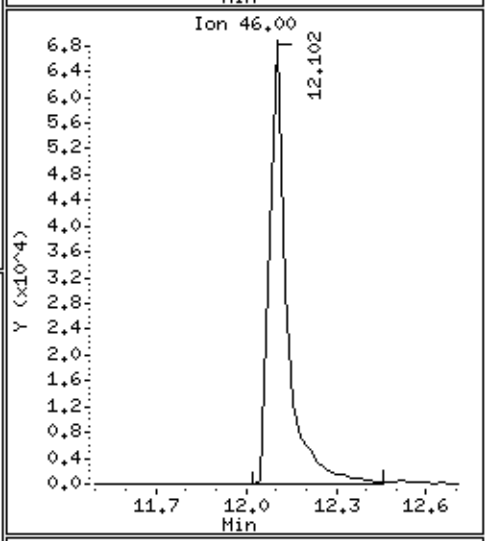


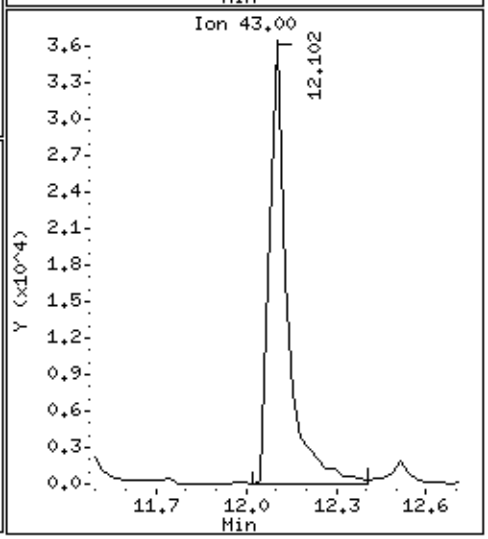



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

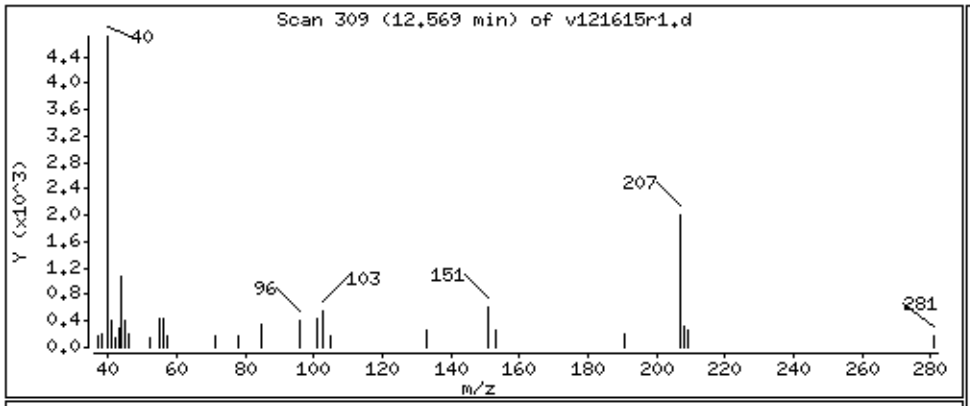
Operator: sn

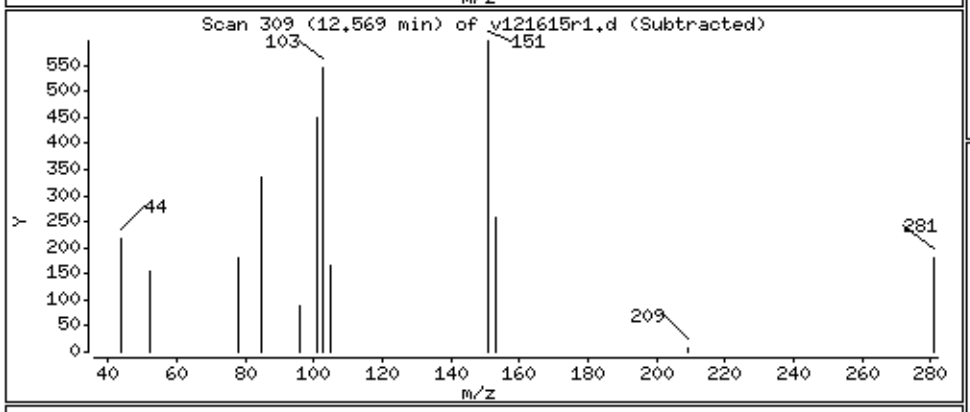
Column phase: RTx-624

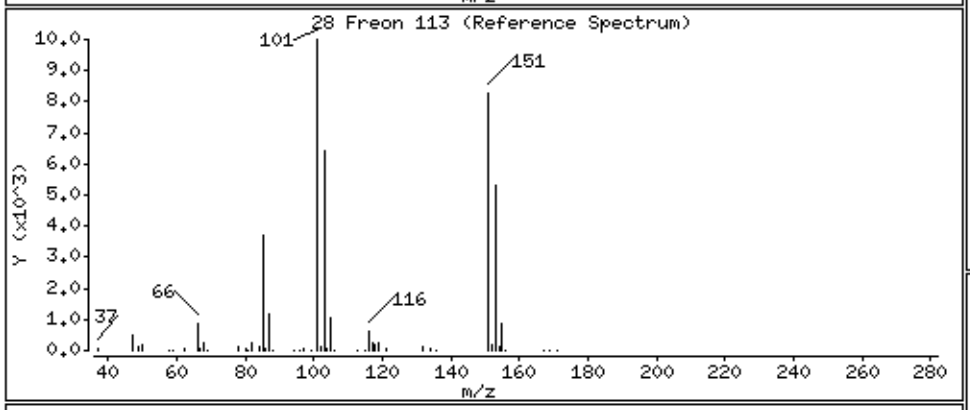
Column diameter: 0.32

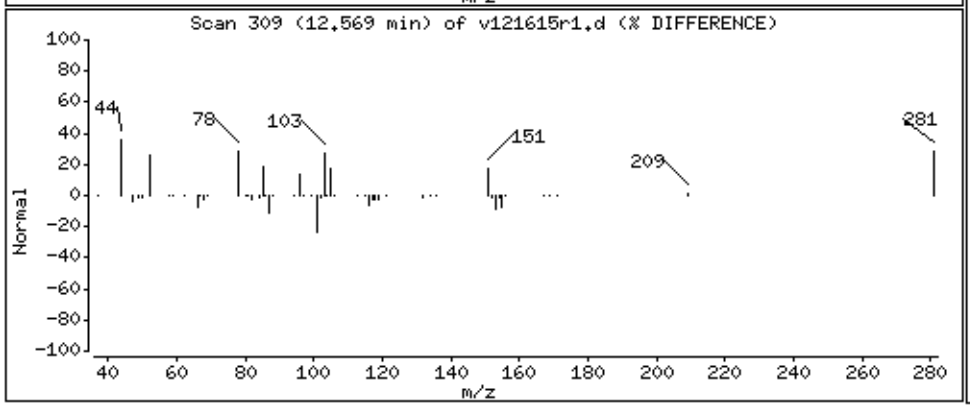
28 Freon 113

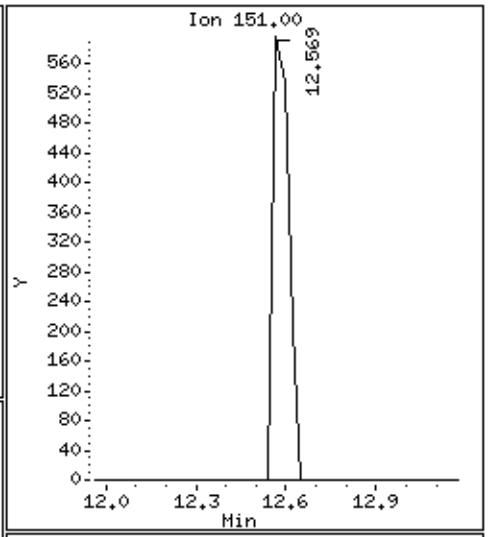
Concentration: 0.06785 PPBV

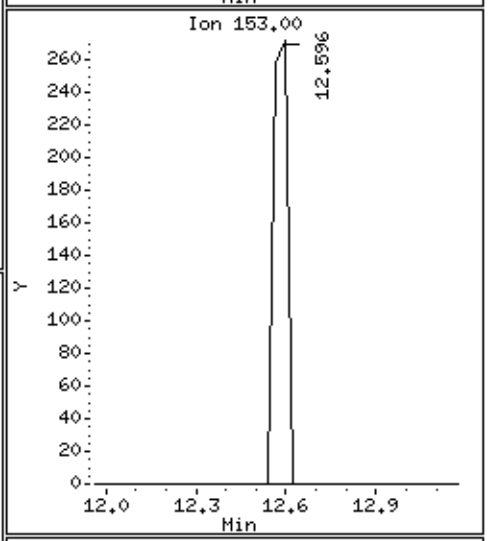


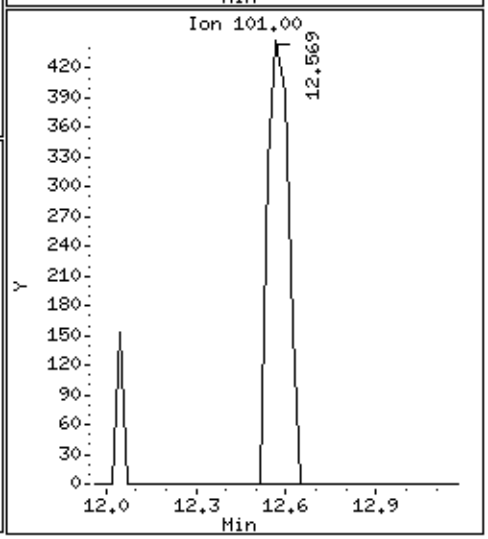



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

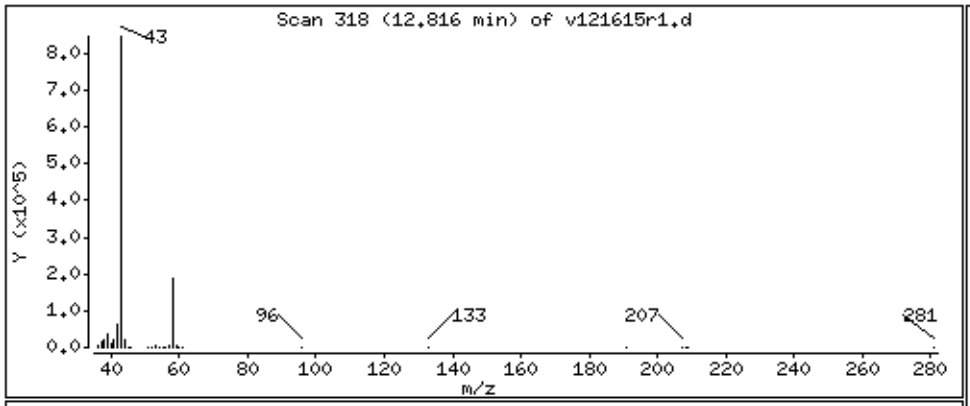
Operator: sn

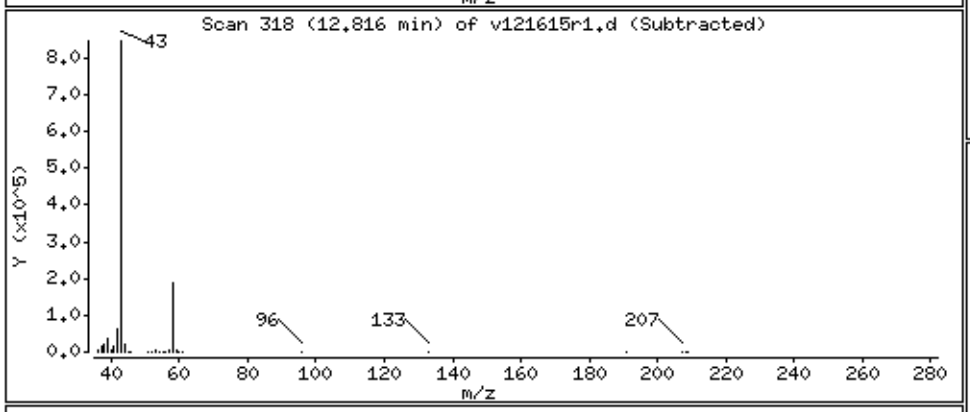
Column phase: RTx-624

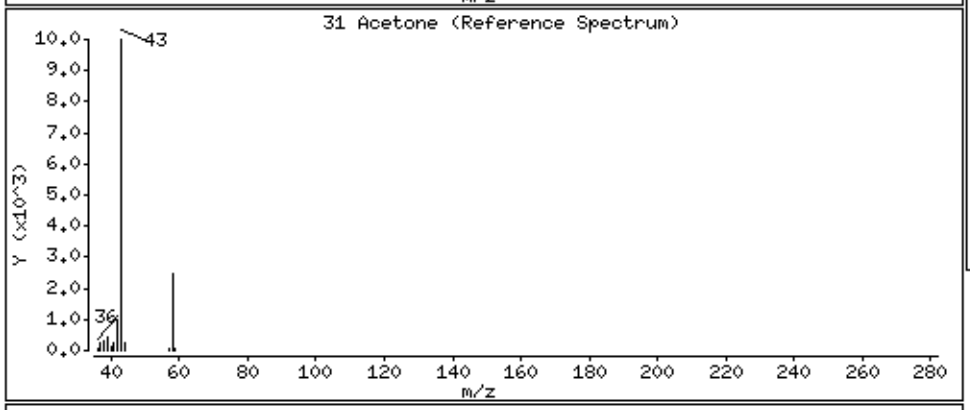
Column diameter: 0.32

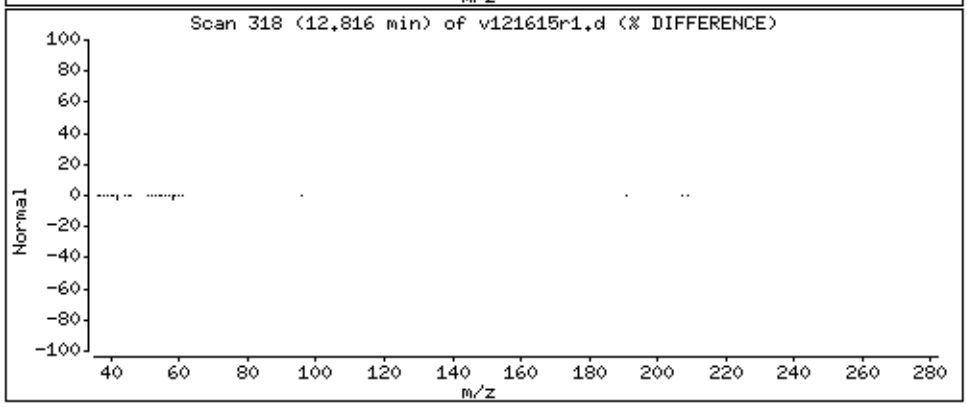
31 Acetone

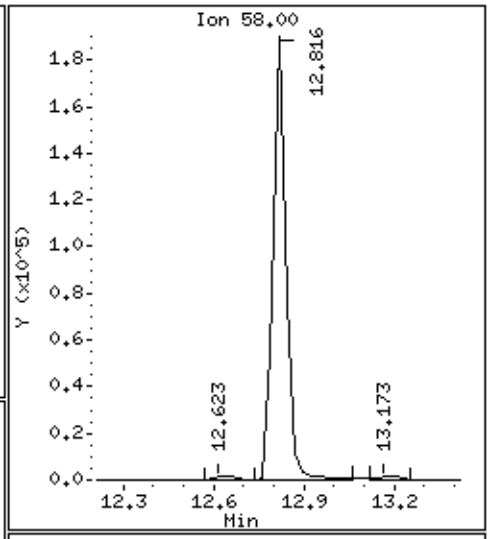
Concentration: 42.500 PPBV

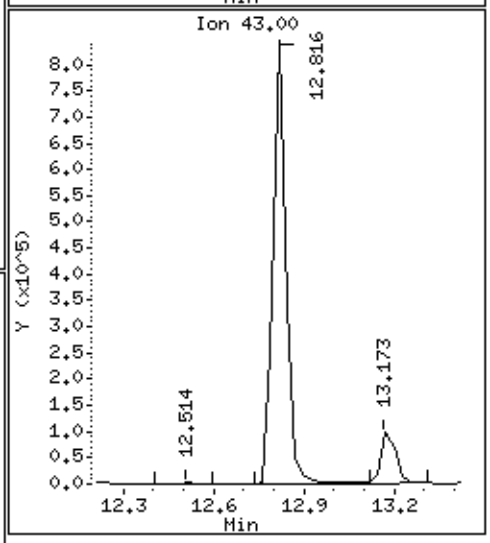


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

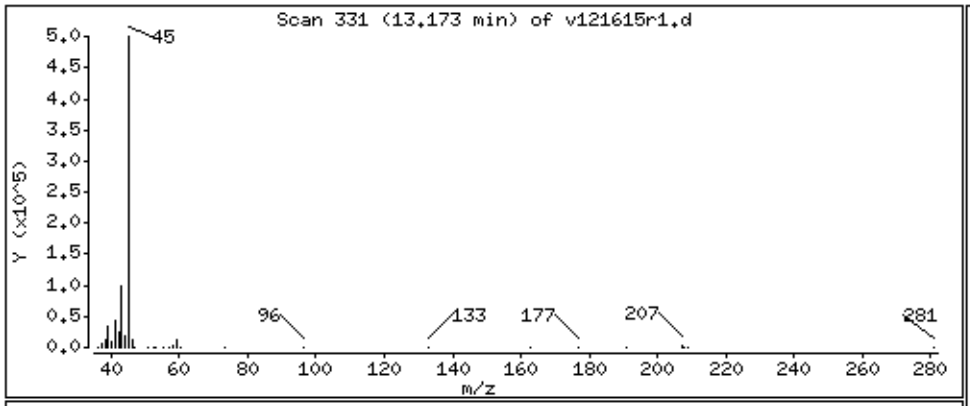
Operator: sn

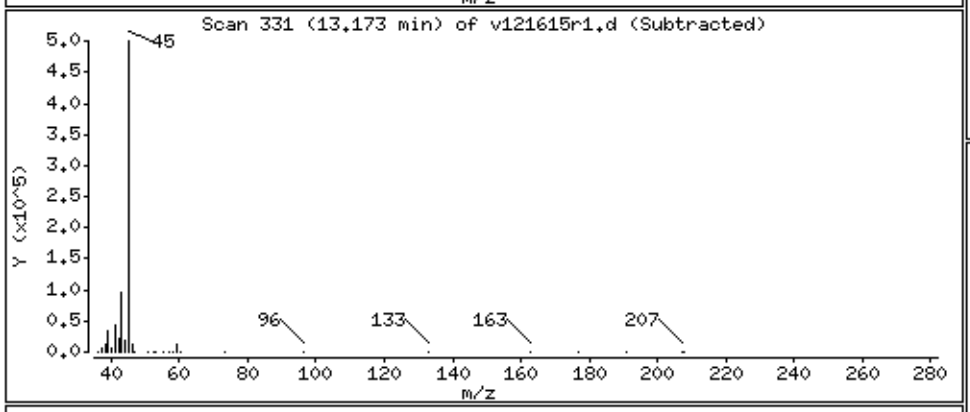
Column phase: RTx-624

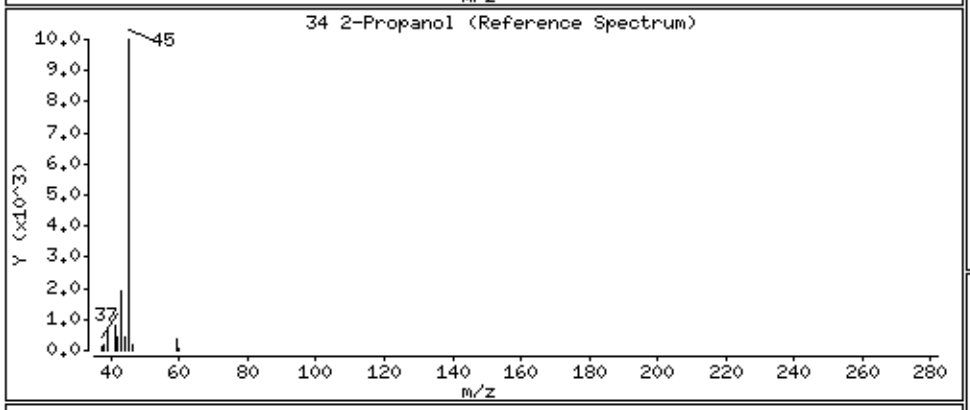
Column diameter: 0.32

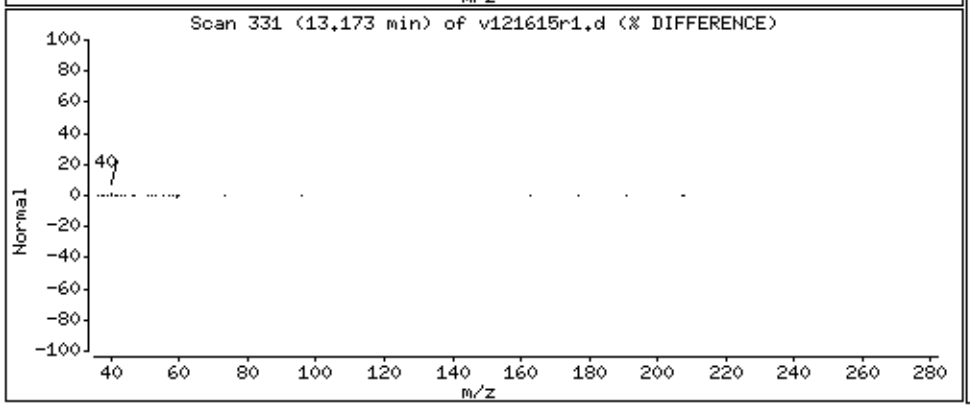
34 2-Propanol

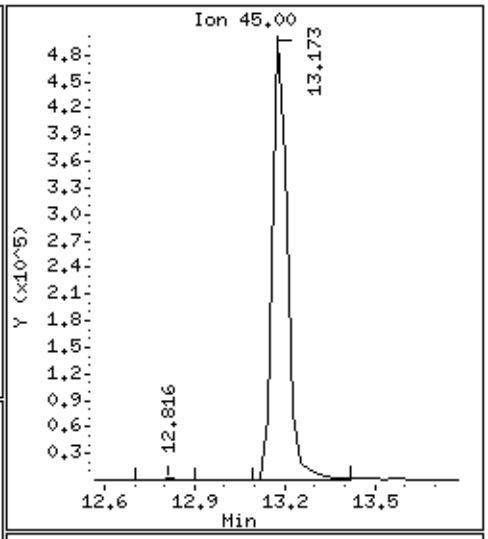
Concentration: 28.504 PPBV

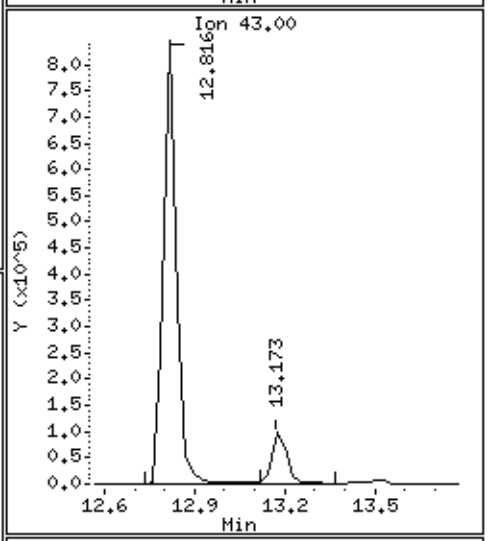


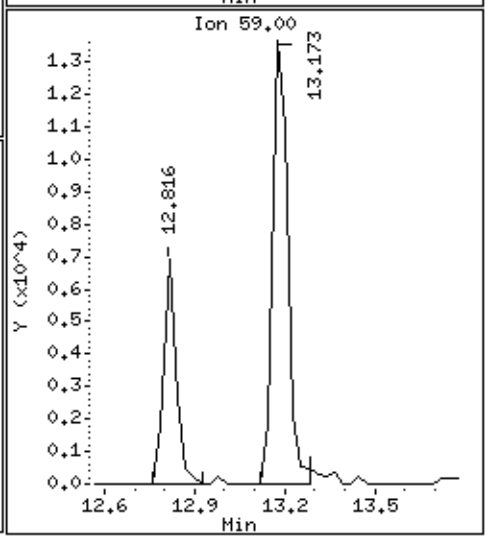



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

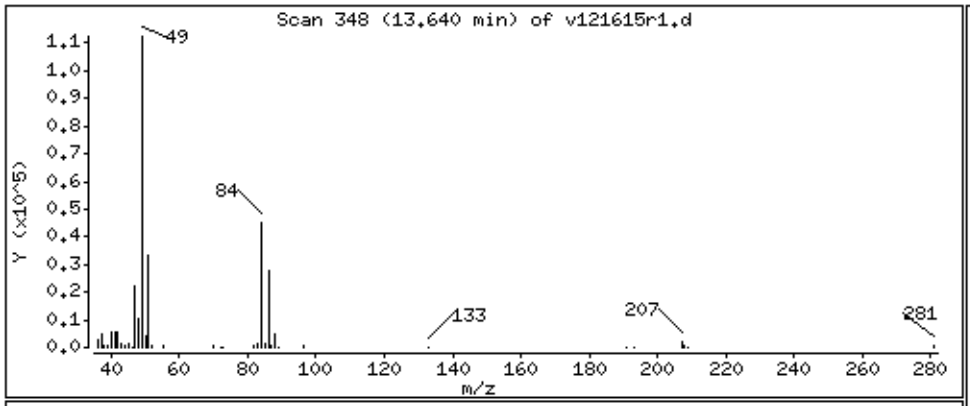
Operator: sn

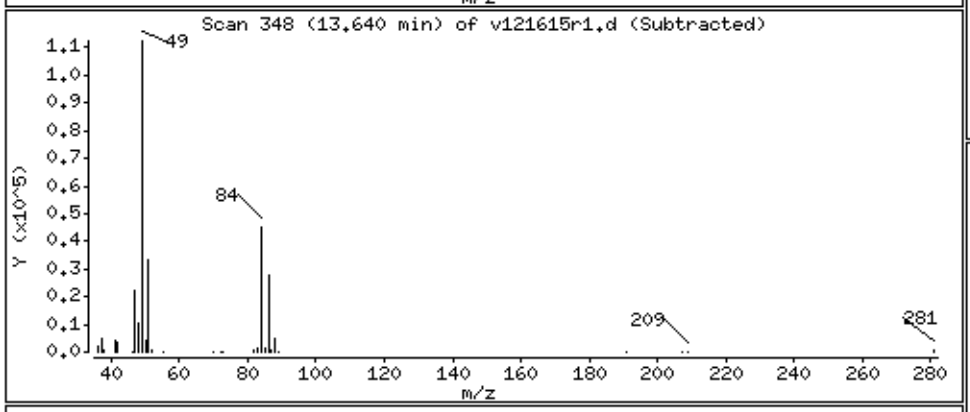
Column phase: RTx-624

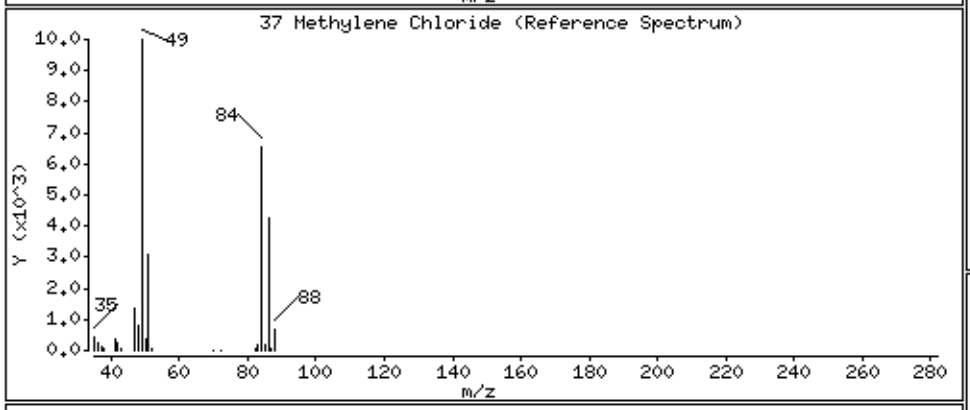
Column diameter: 0.32

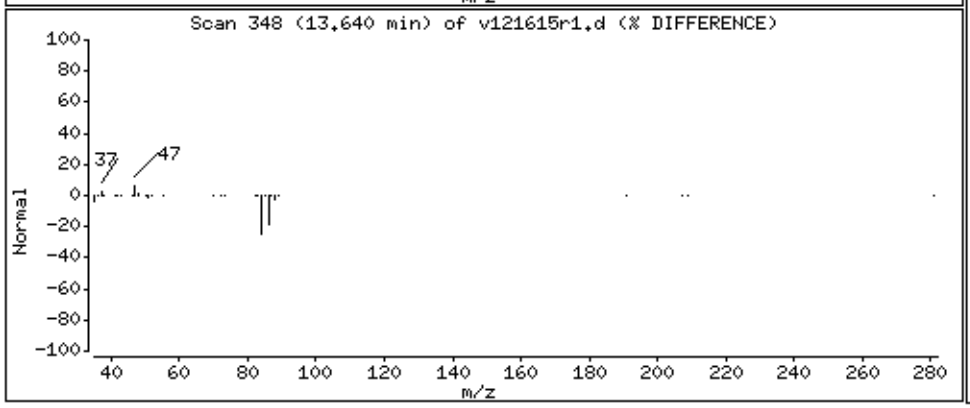
37 Methylene Chloride

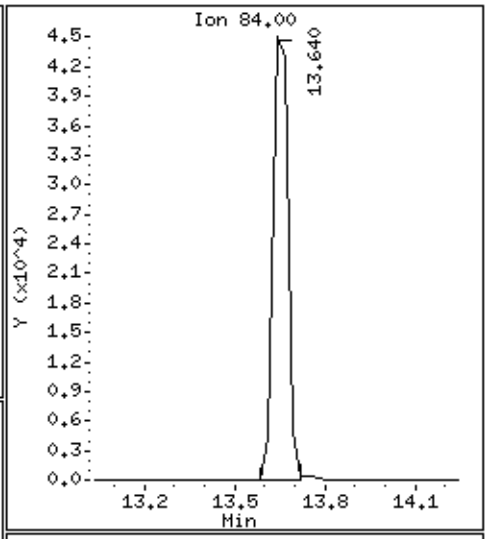
Concentration: 9.445 PPBV

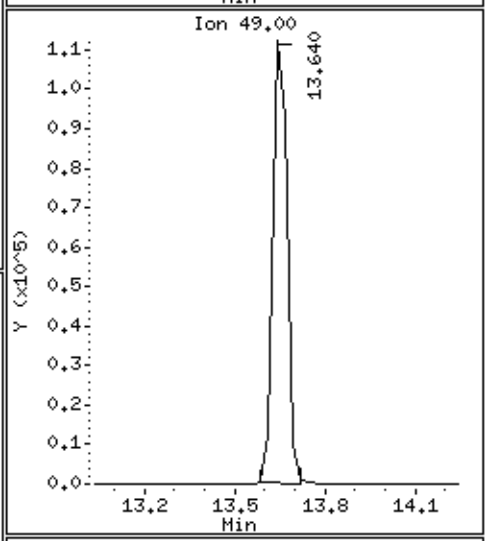


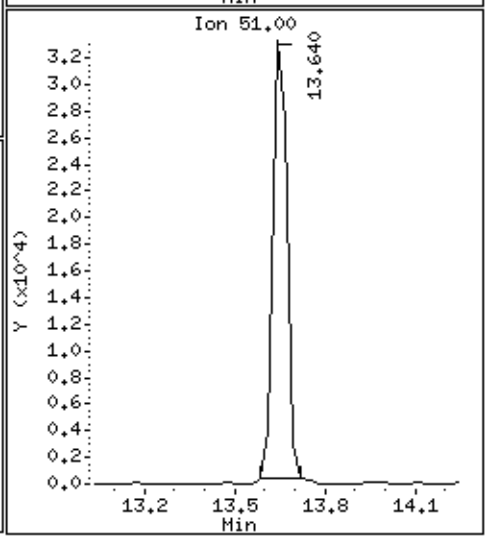



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

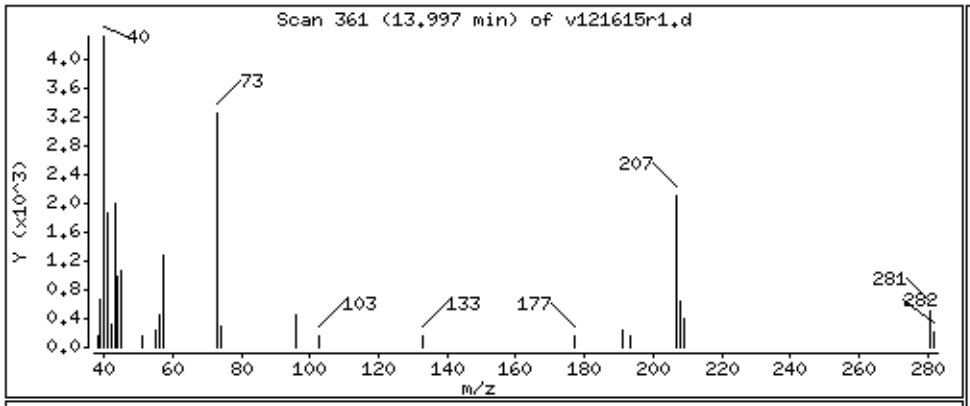
Operator: sn

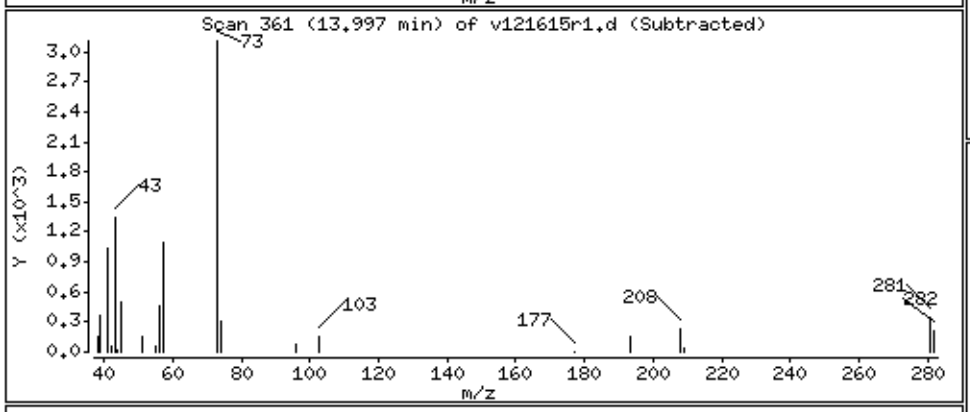
Column phase: RTx-624

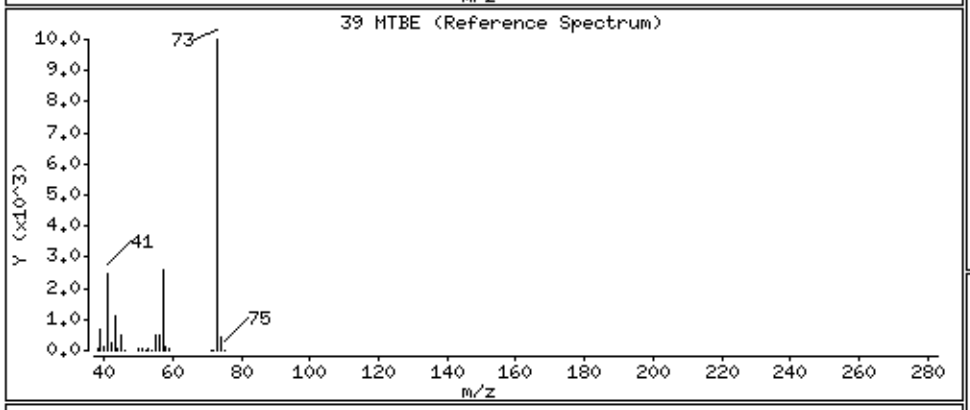
Column diameter: 0.32

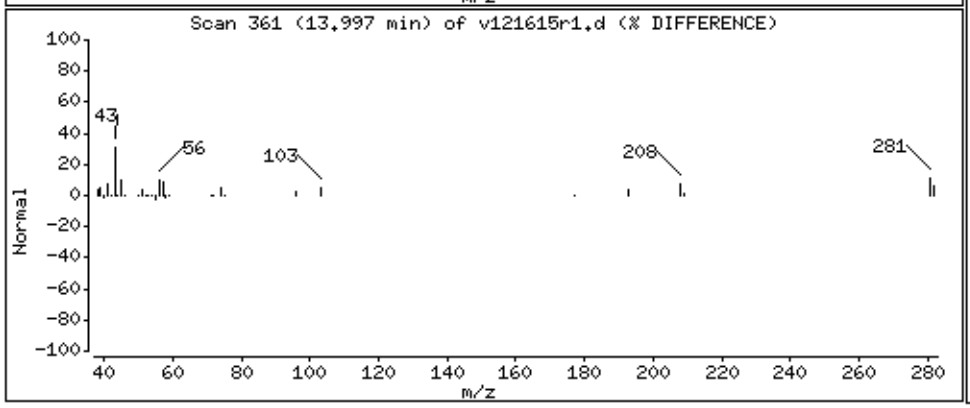
39 MTBE

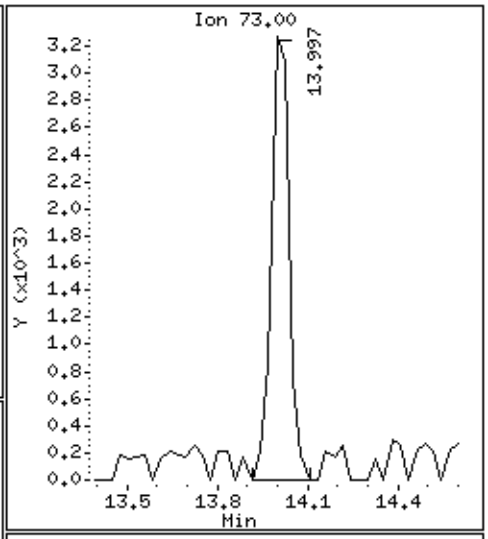
Concentration: 0.2254 PPBV

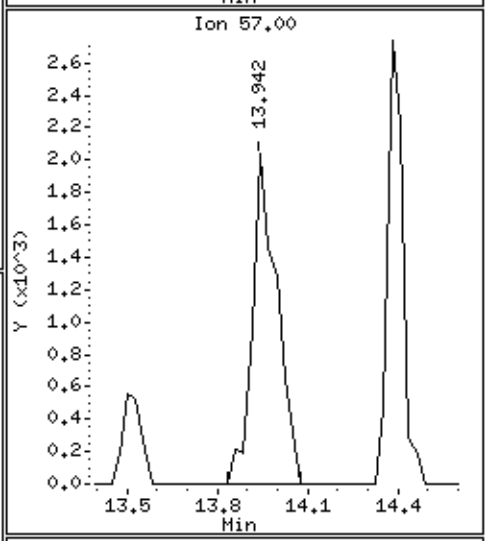


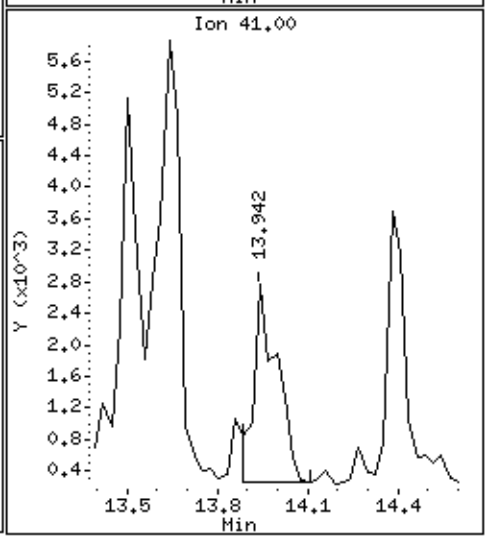



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

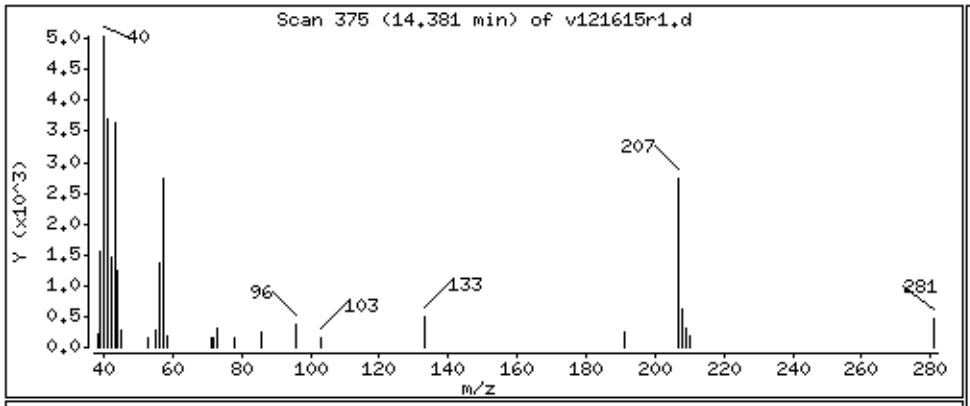
Operator: sn

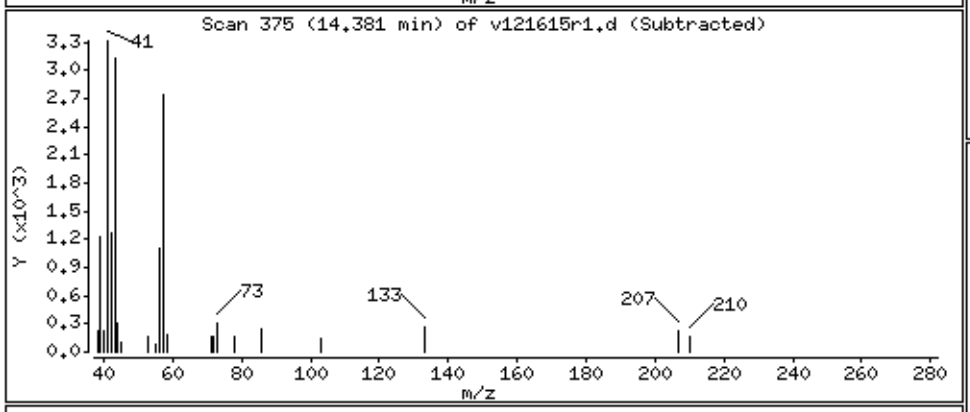
Column phase: RTx-624

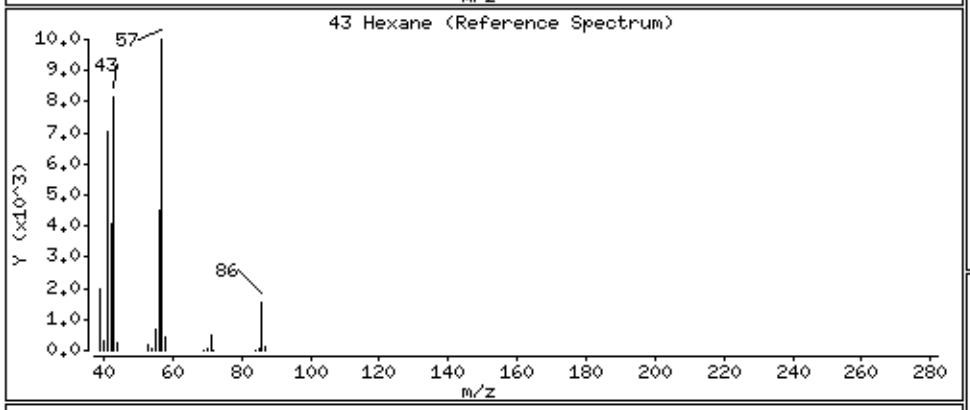
Column diameter: 0.32

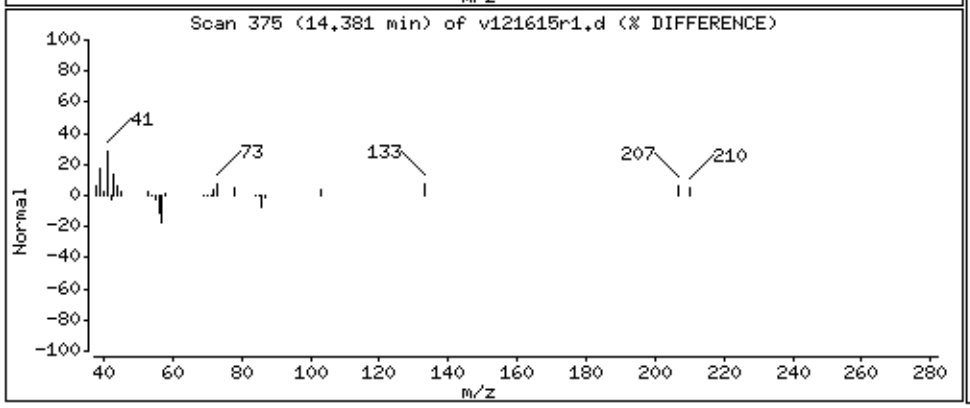
43 Hexane

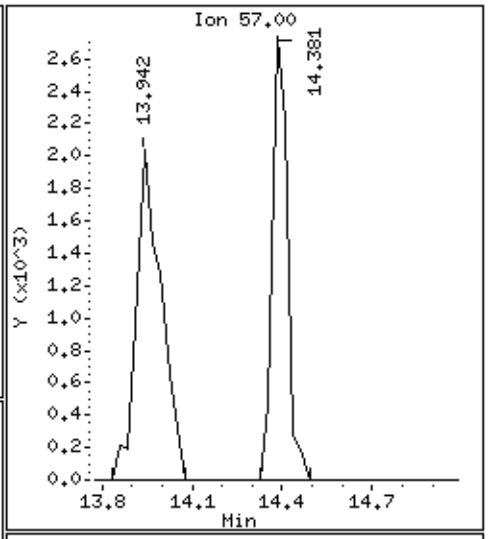
Concentration: 0.1989 PPBV

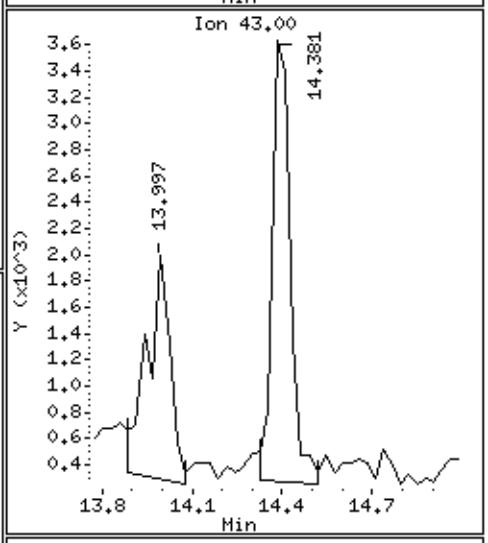


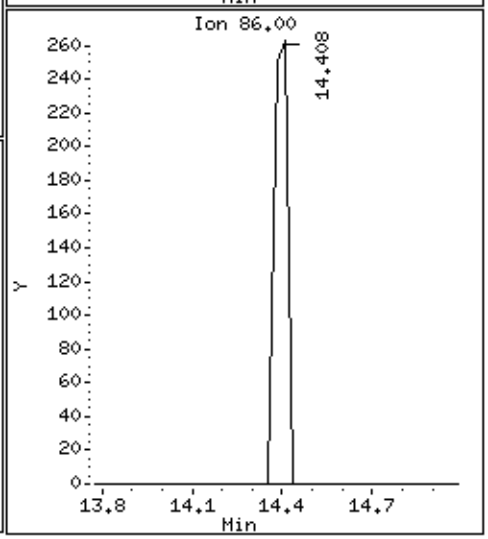



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

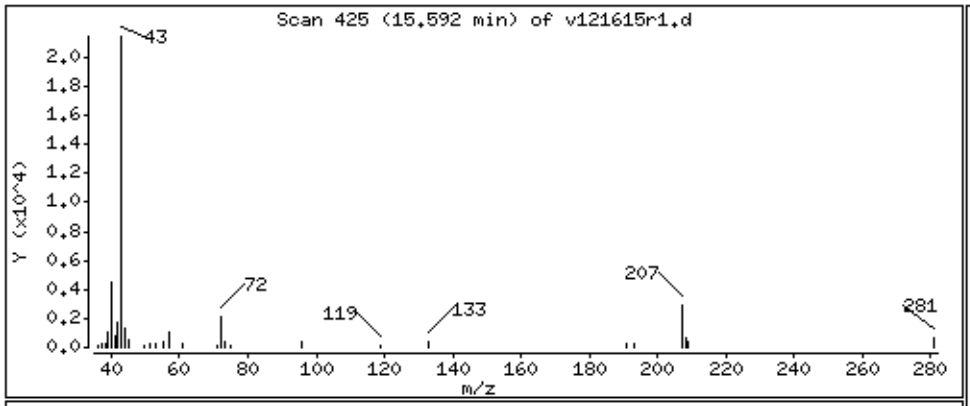
Operator: sn

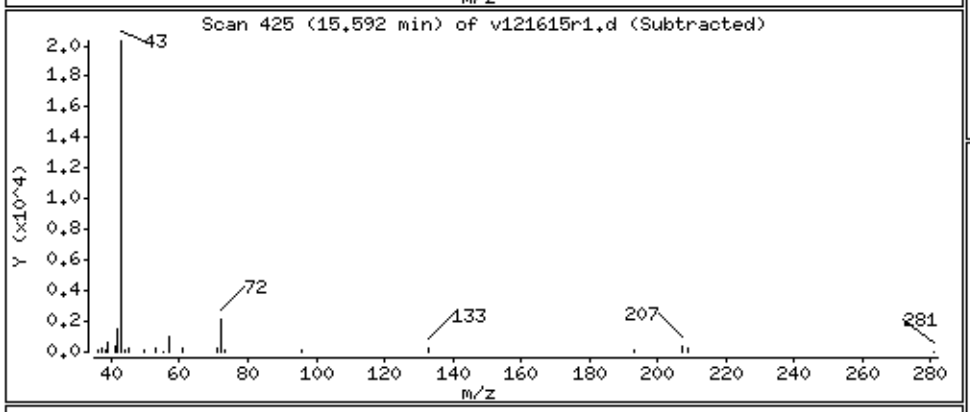
Column phase: RTx-624

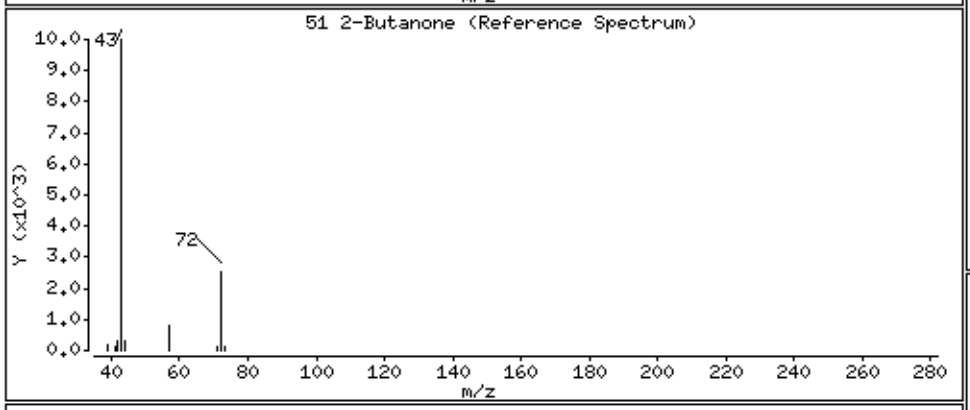
Column diameter: 0.32

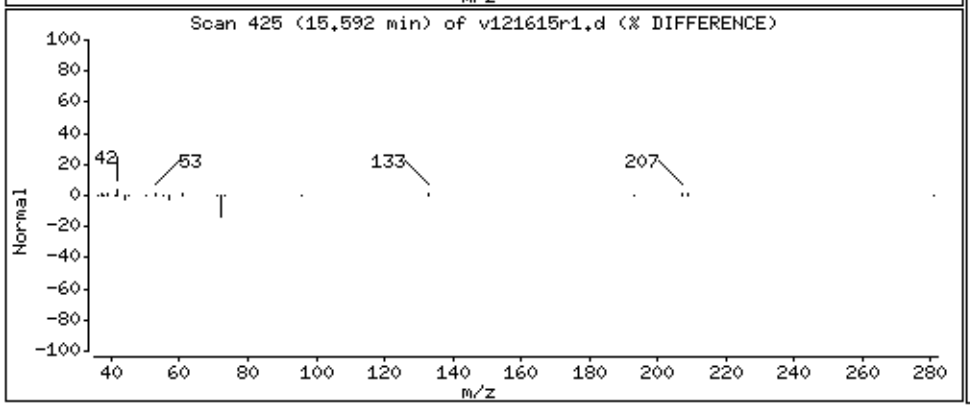
51 2-Butanone

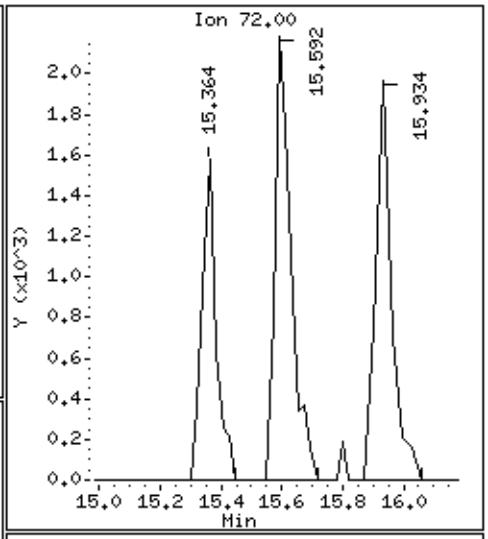
Concentration: 0.8201 PPBV

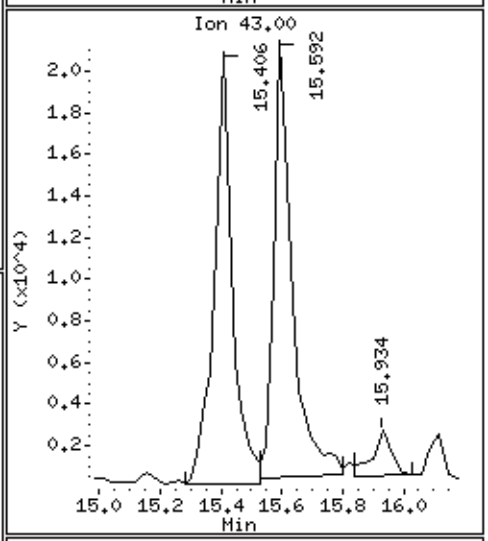


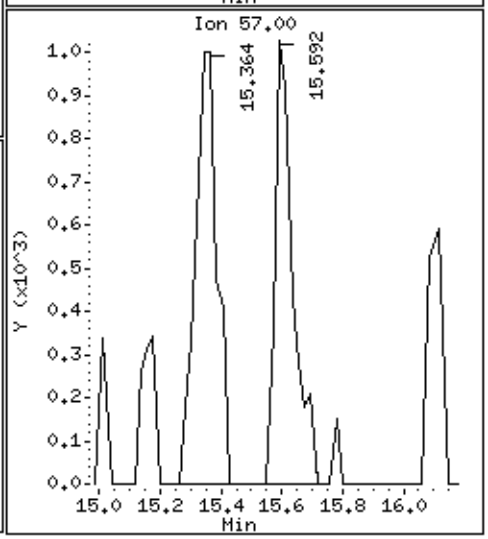



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

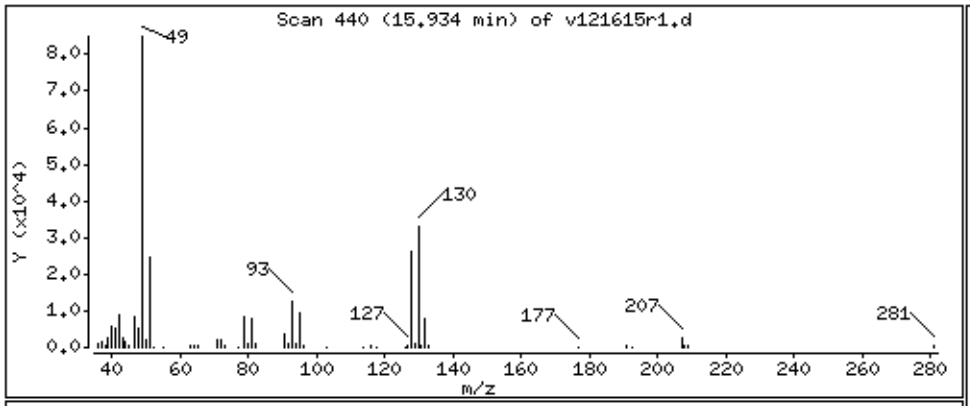
Operator: sn

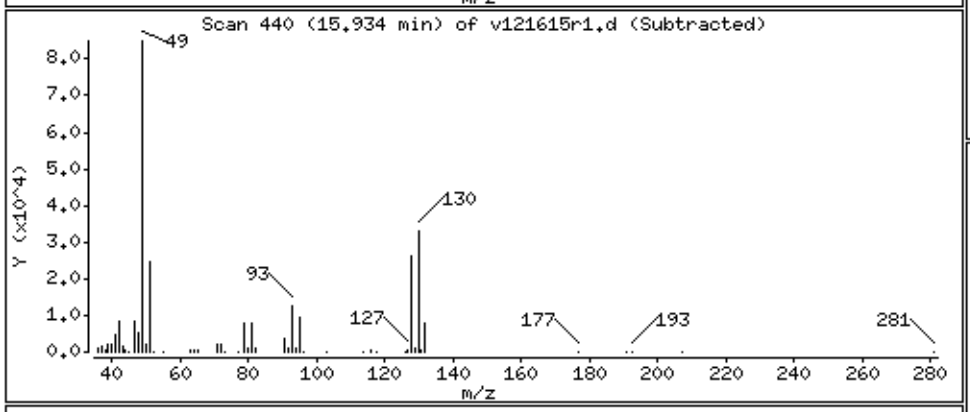
Column phase: RTx-624

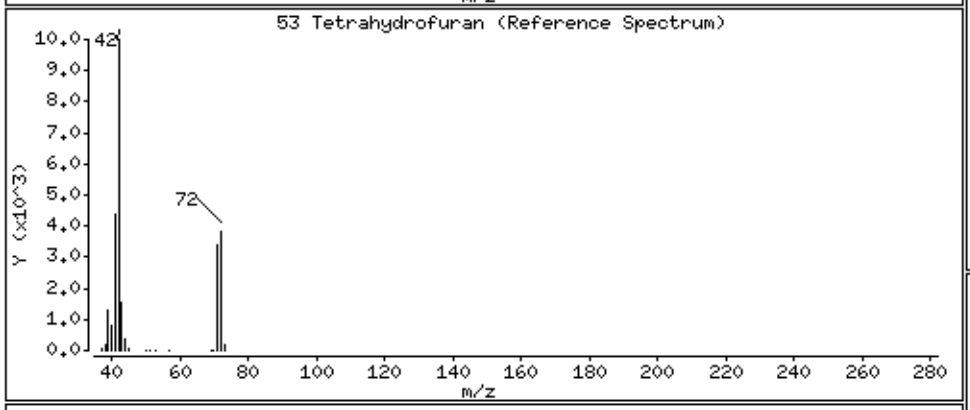
Column diameter: 0.32

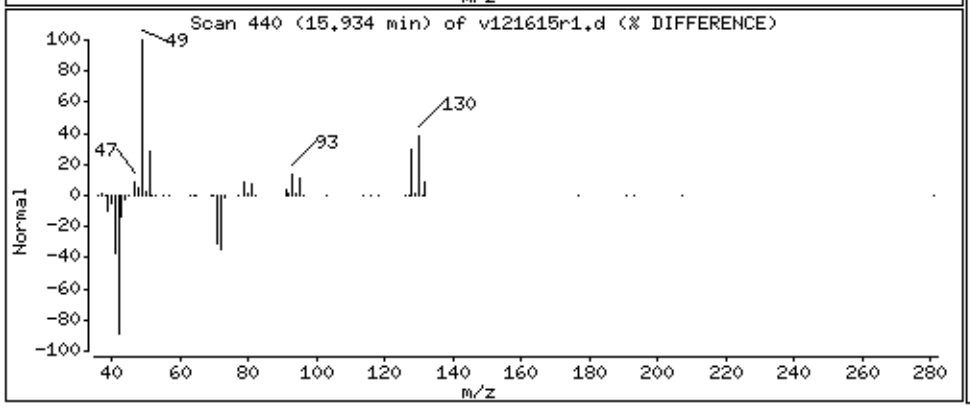
53 Tetrahydrofuran

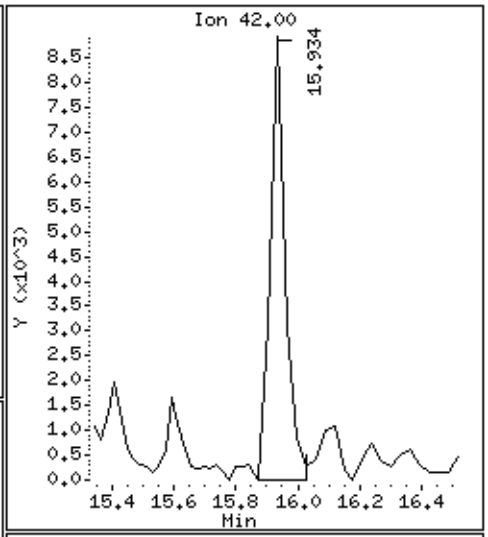
Concentration: 0.5908 PPBV

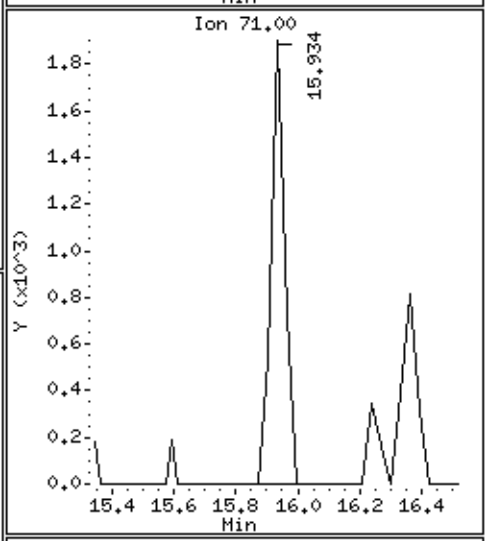


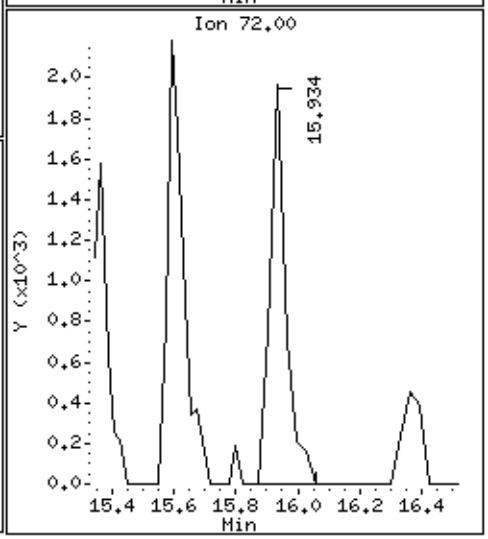



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d

Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

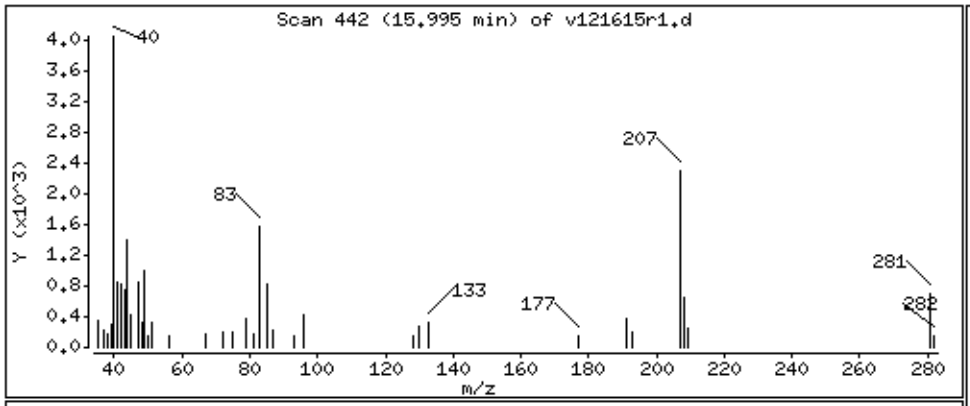
Operator: sn

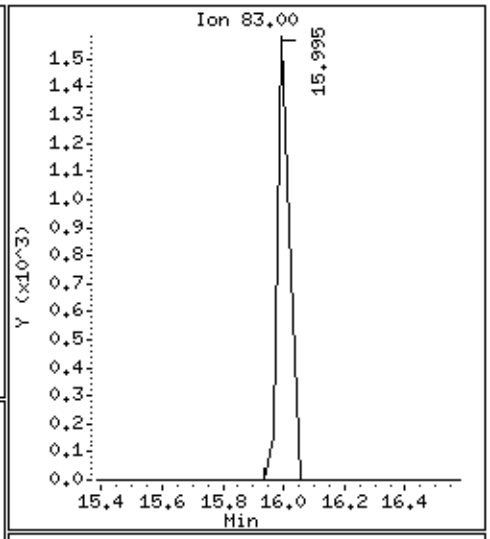
Column phase: RTx-624

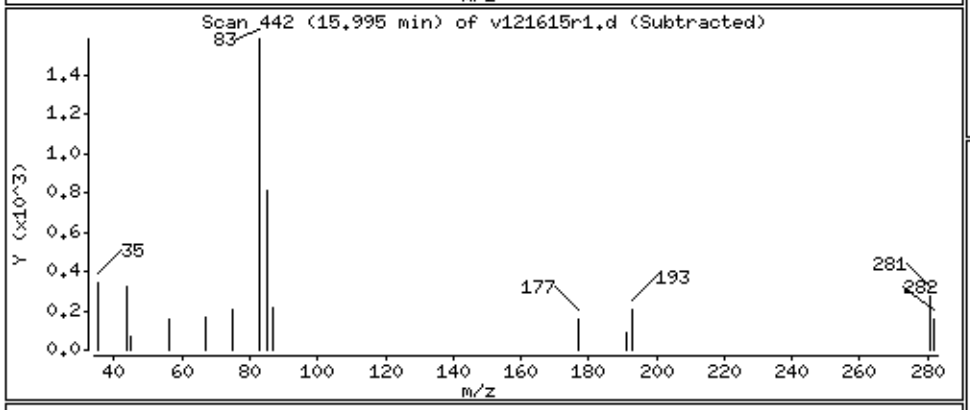
Column diameter: 0.32

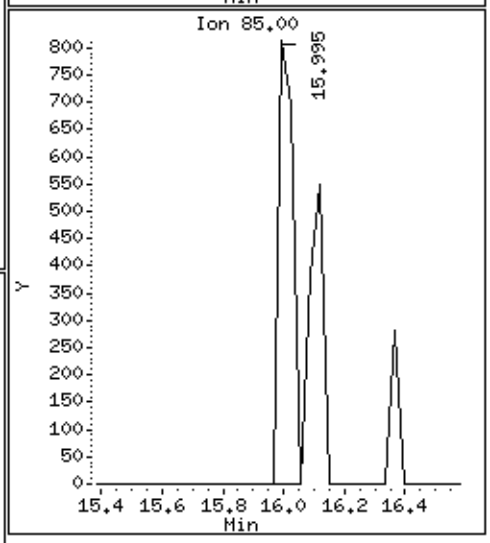
55 Chloroform

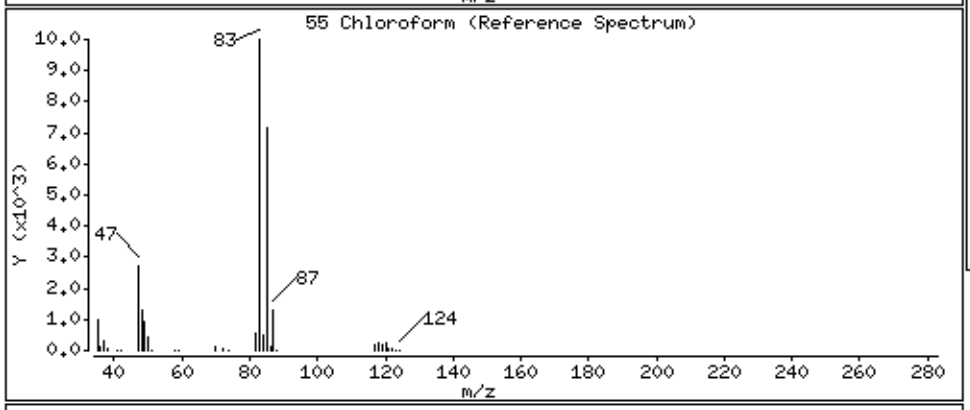
Concentration: 0.09697 PPBV

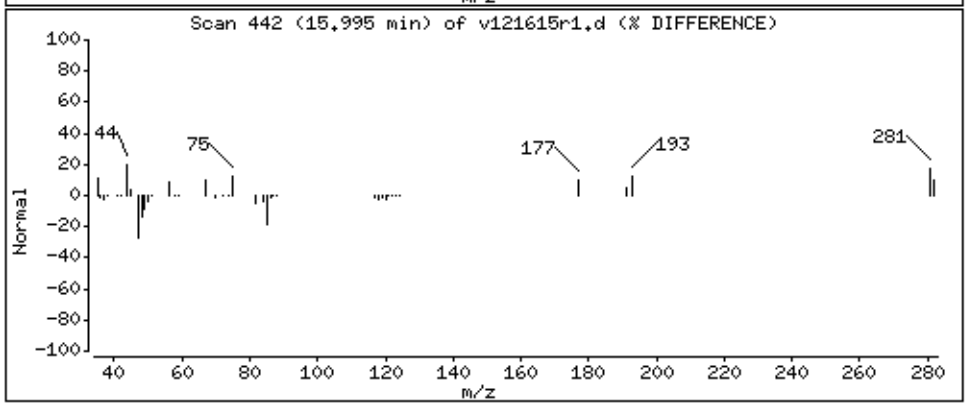


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d

Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

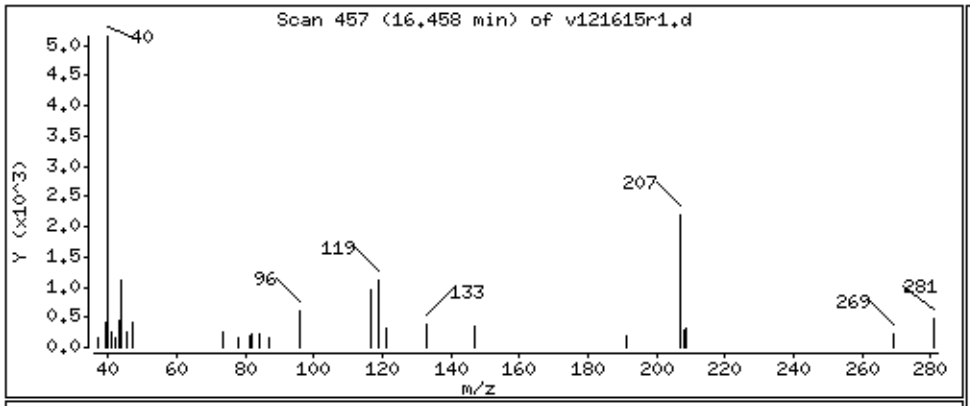
Operator: sn

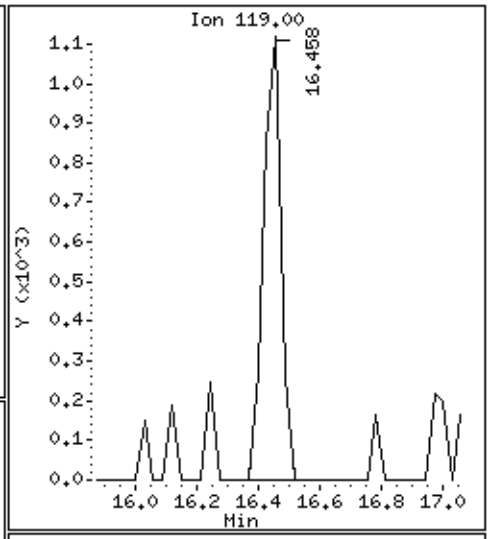
Column phase: RTx-624

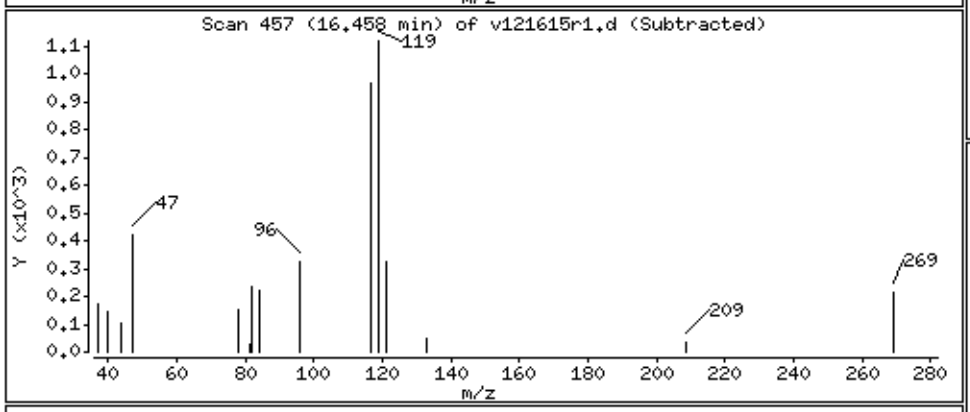
Column diameter: 0.32

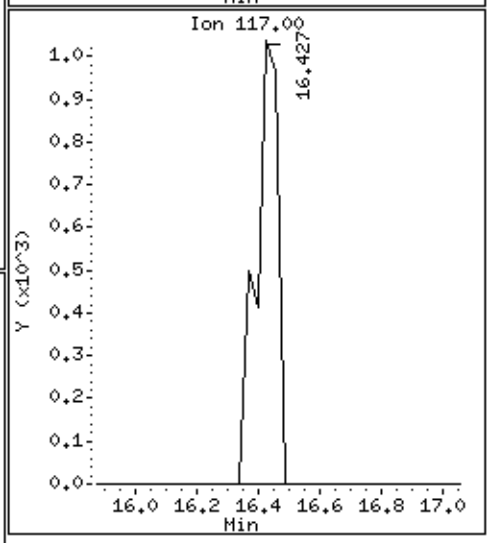
59 Carbon Tetrachloride

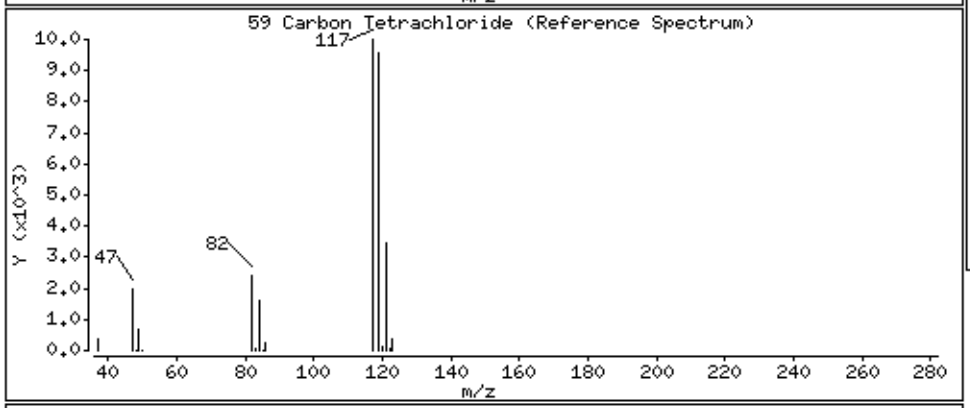
Concentration: 0.09797 PPBV

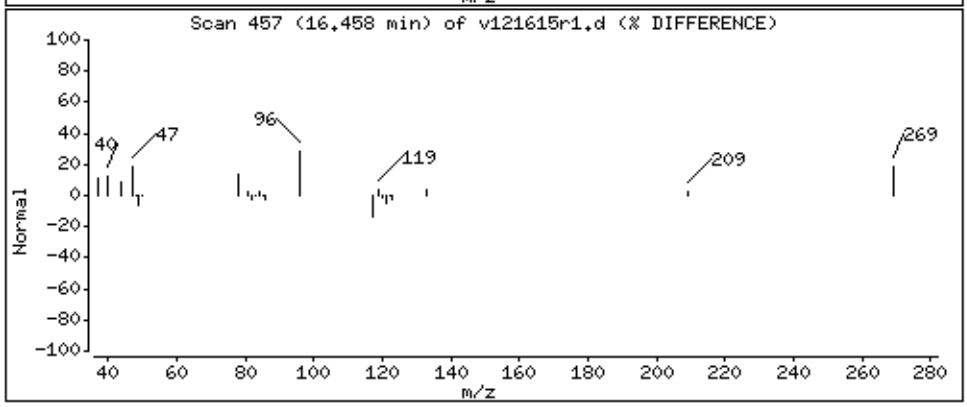


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

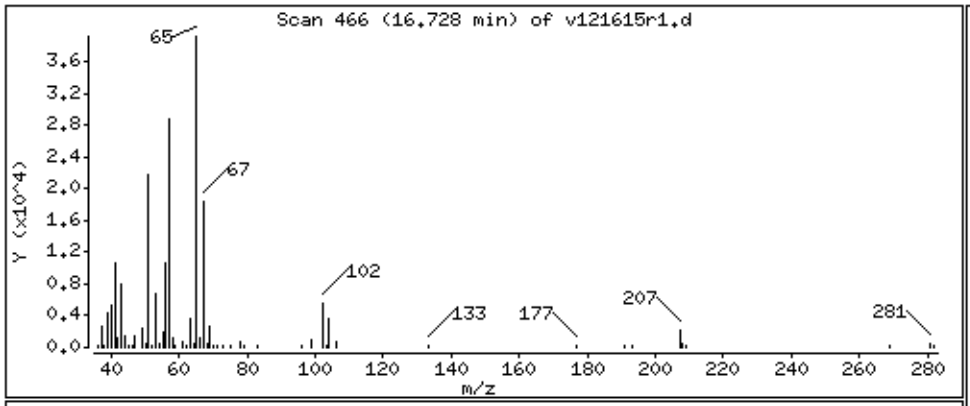
Operator: sn

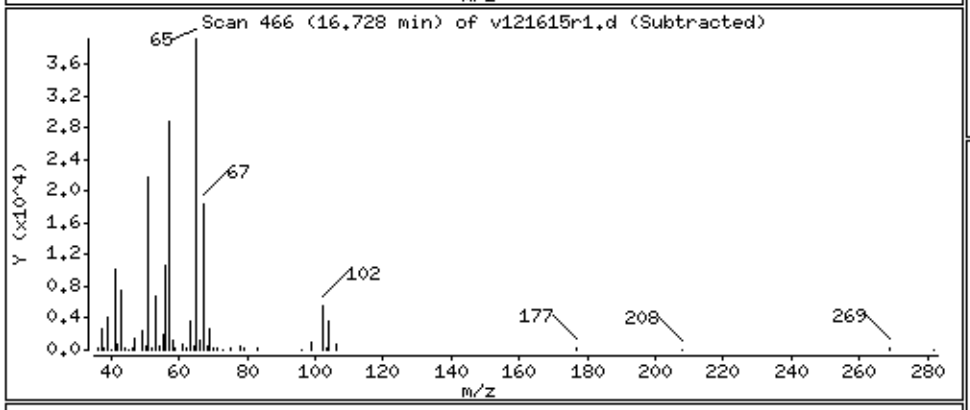
Column phase: RTx-624

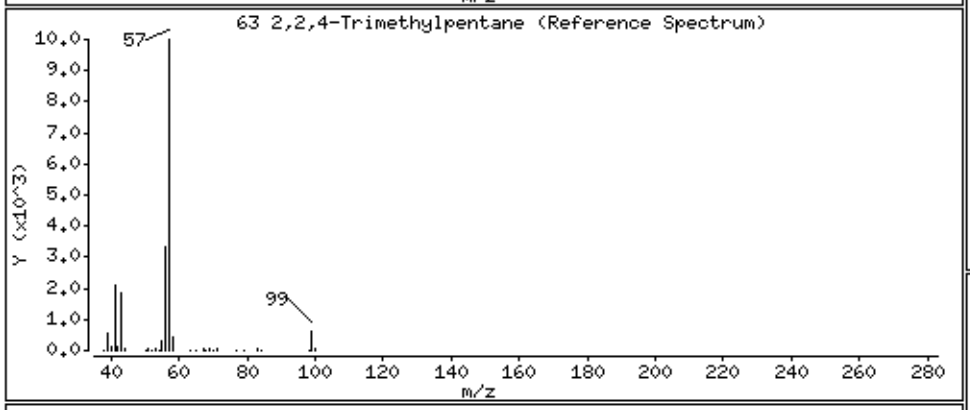
Column diameter: 0.32

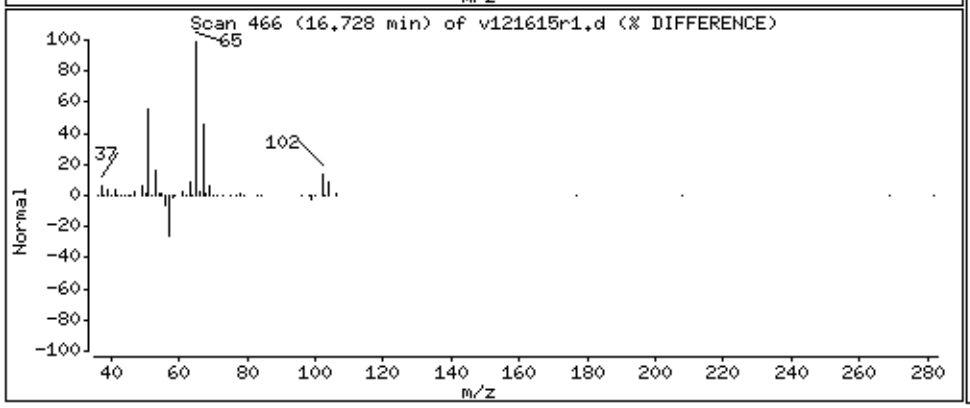
63 2,2,4-Trimethylpentane

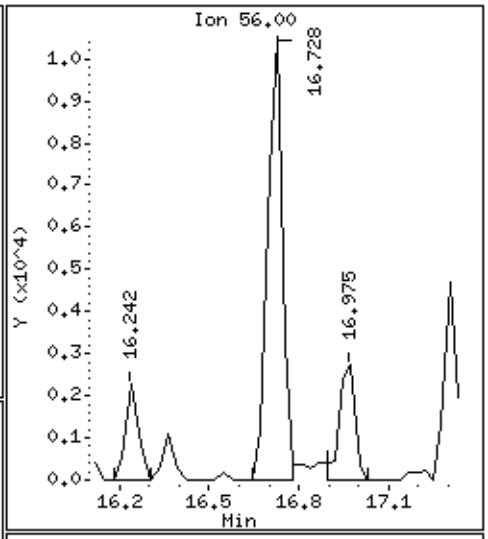
Concentration: 0.7419 PPBV

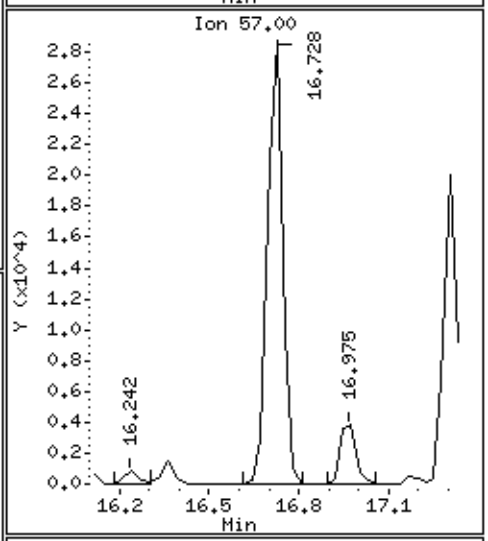


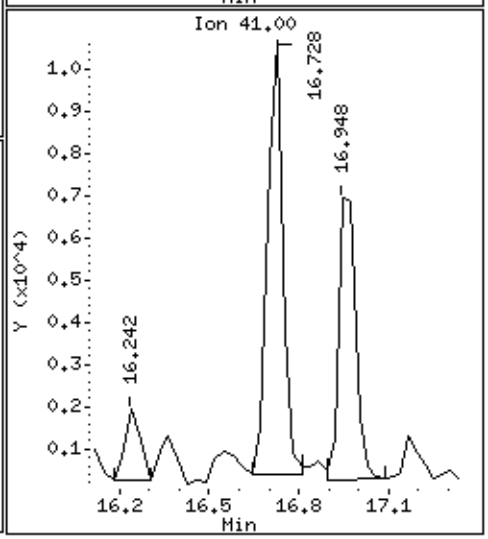



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d

Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

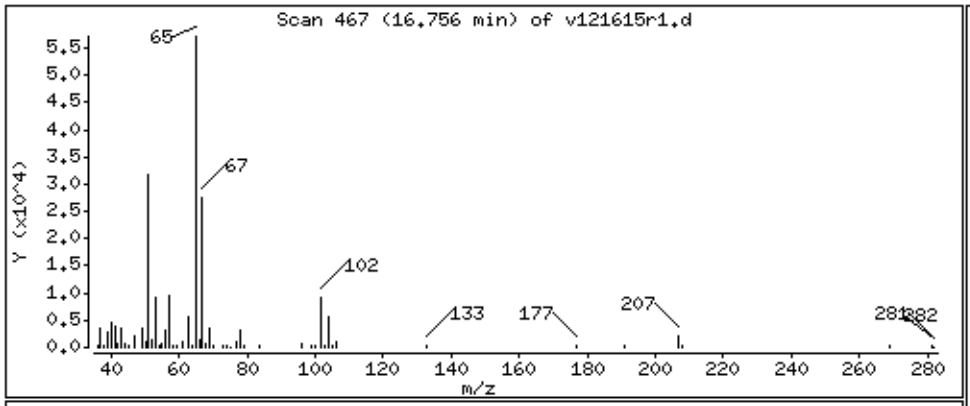
Operator: sn

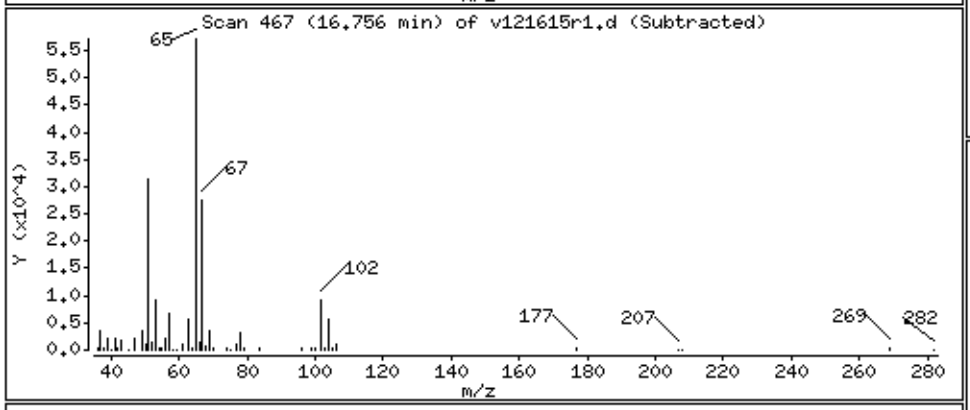
Column phase: RTx-624

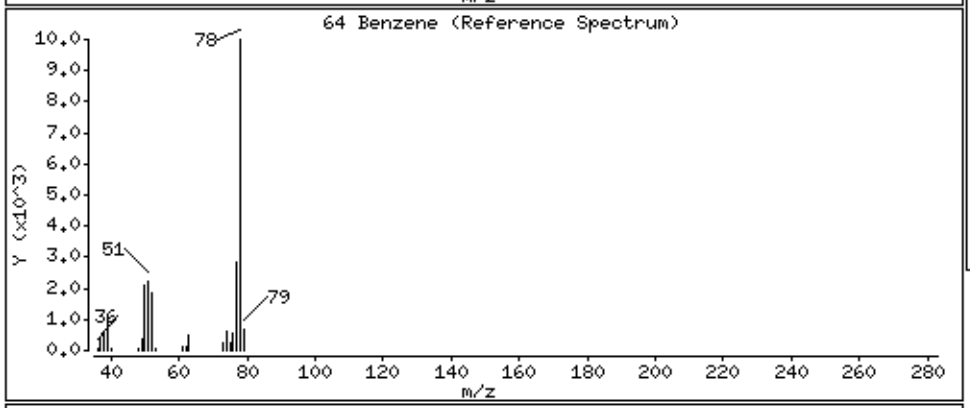
Column diameter: 0.32

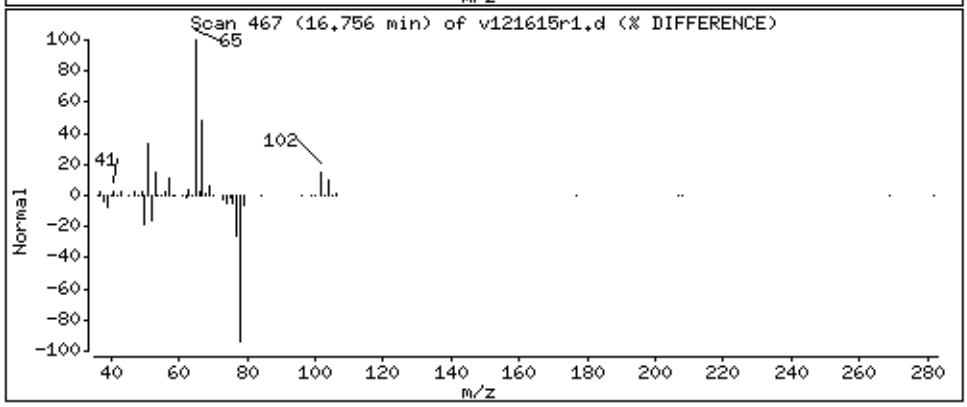
64 Benzene

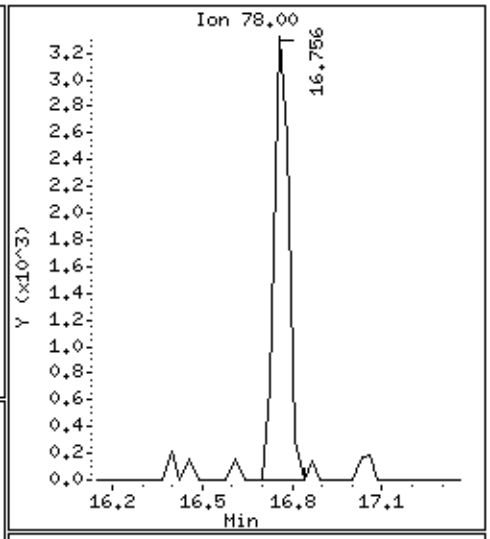
Concentration: 0.1481 PPBV

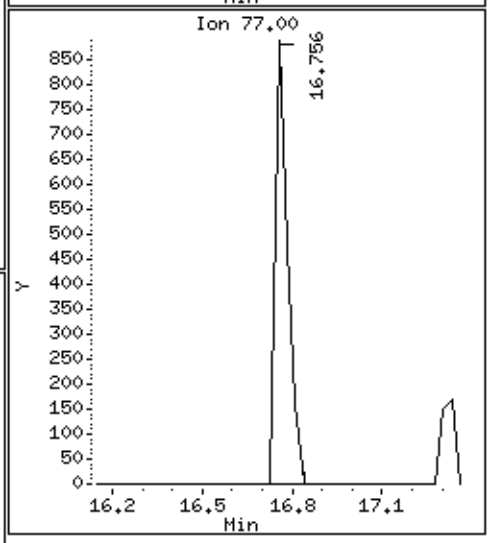


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

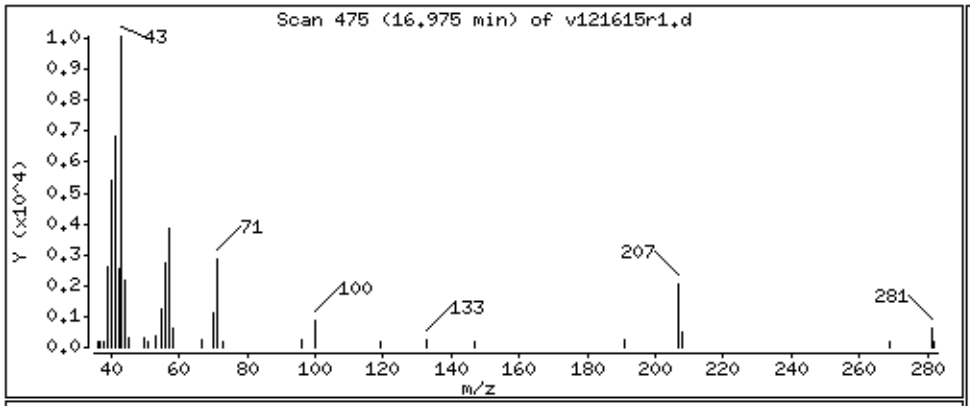
Operator: sn

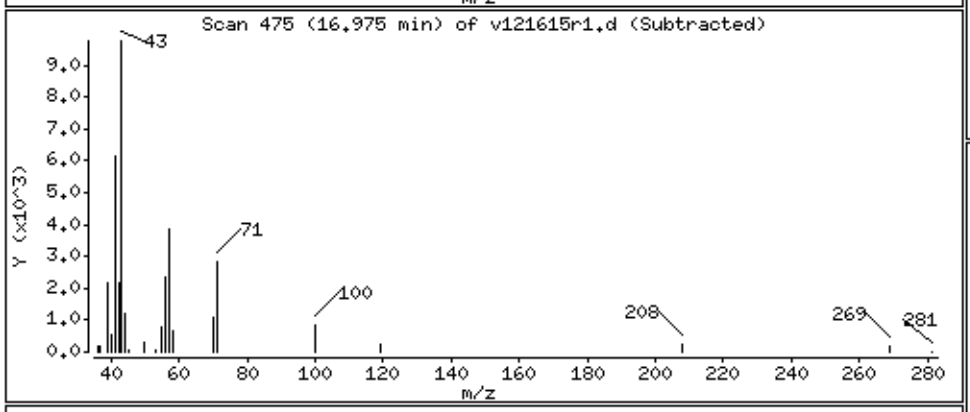
Column phase: RTx-624

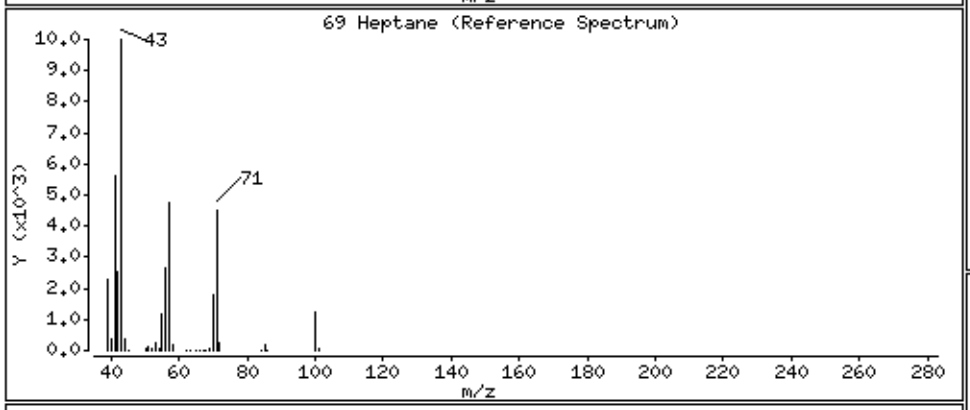
Column diameter: 0.32

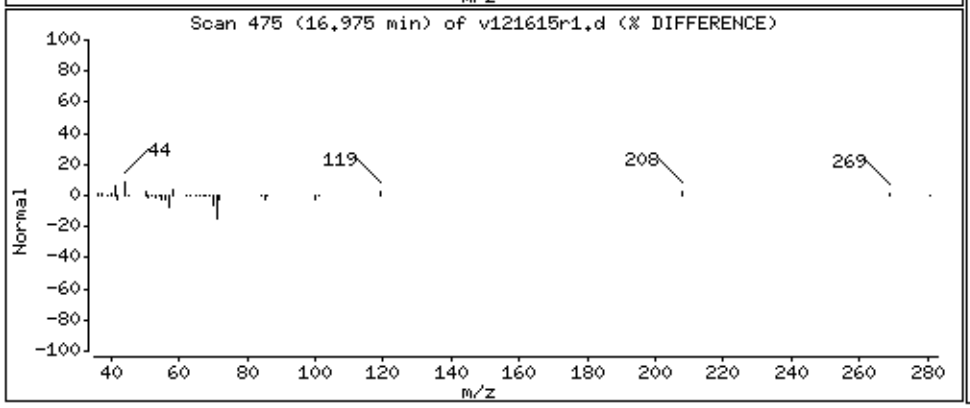
69 Heptane

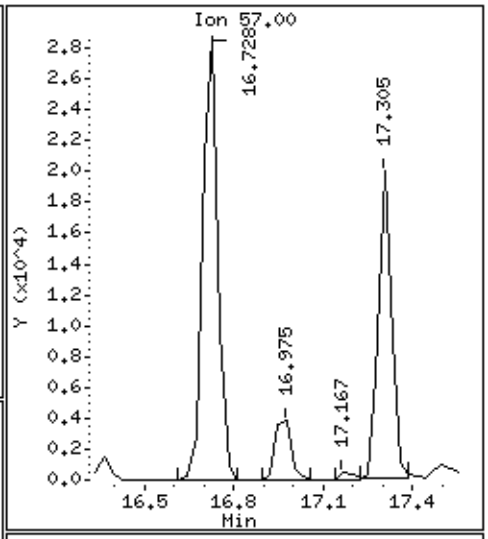
Concentration: 0.4394 PPBV

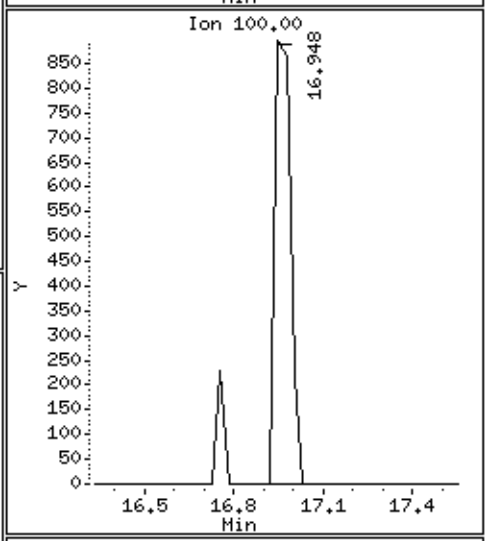


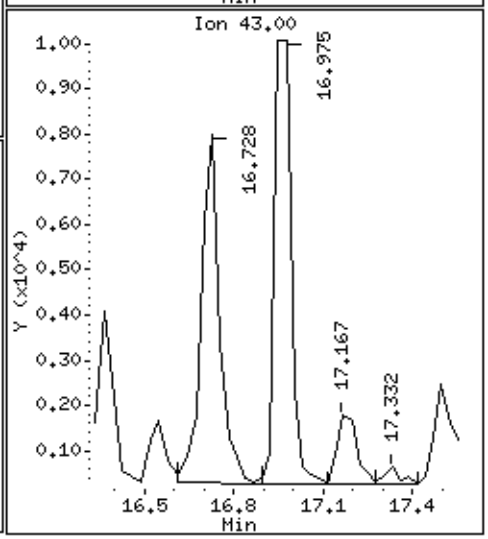



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

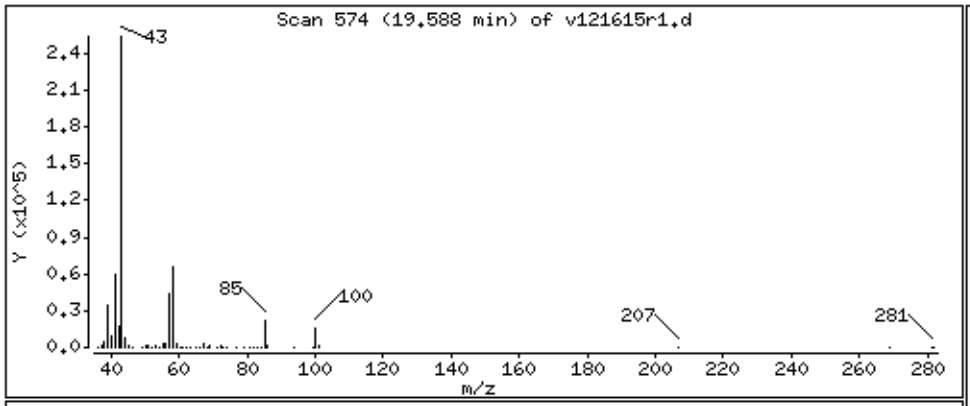
Operator: sn

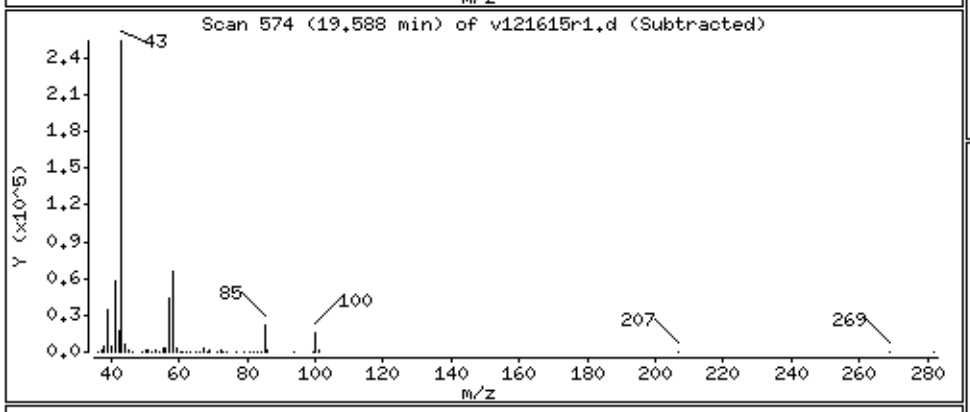
Column phase: RTx-624

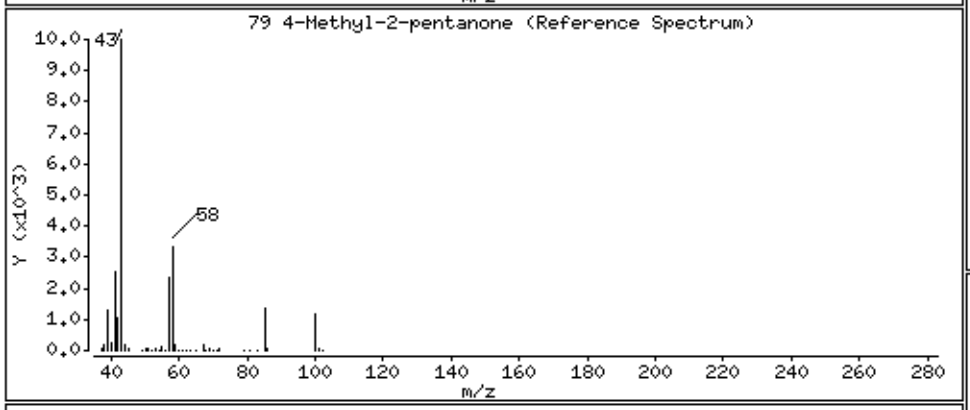
Column diameter: 0.32

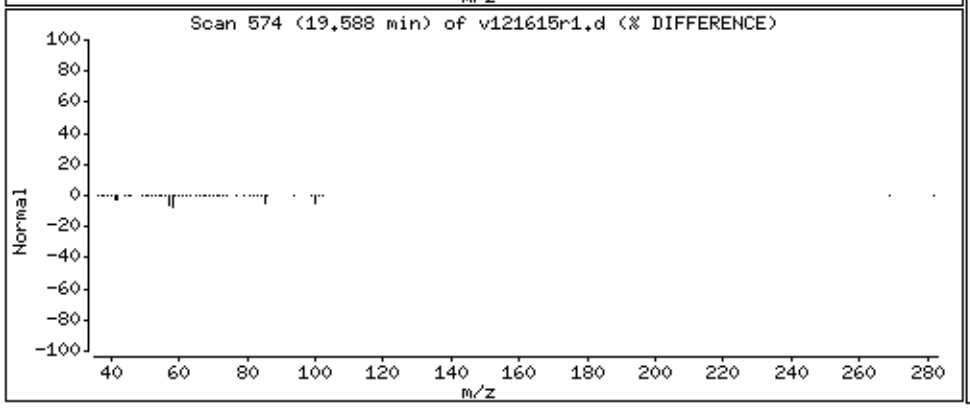
79 4-Methyl-2-pentanone

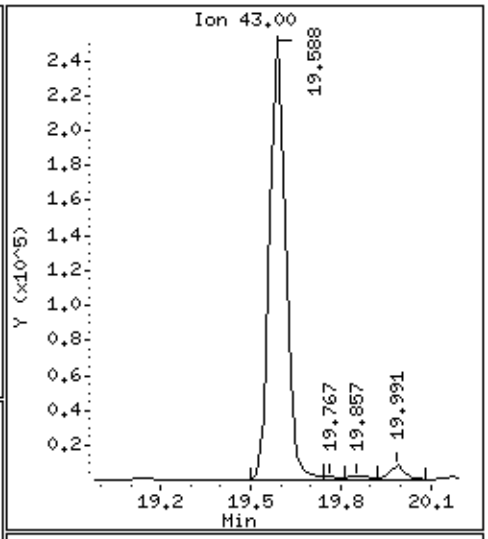
Concentration: 8.767 PPBV

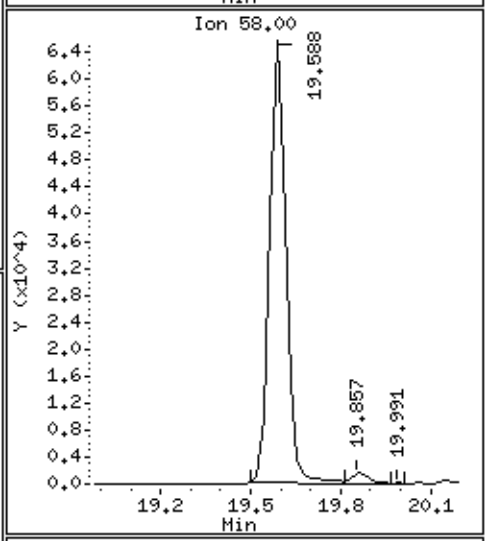


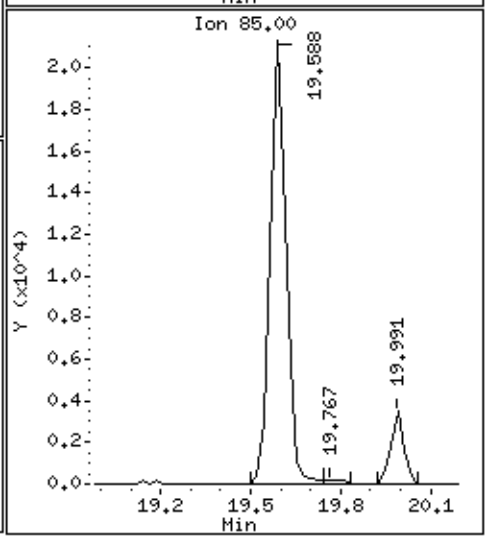



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

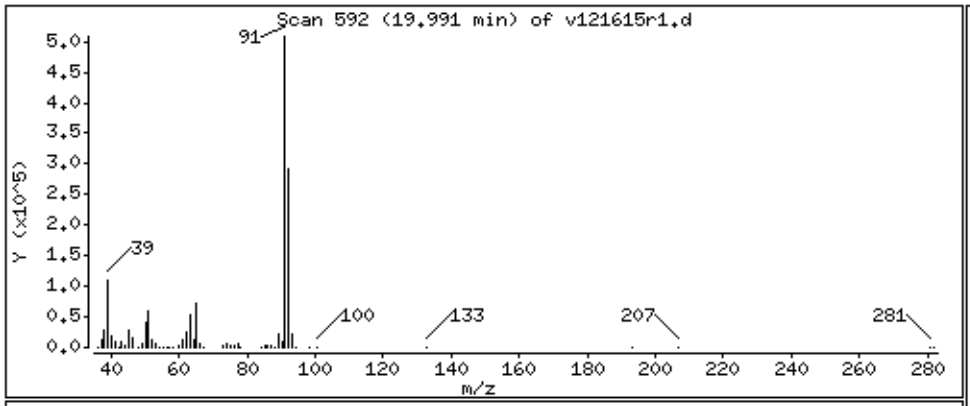
Operator: sn

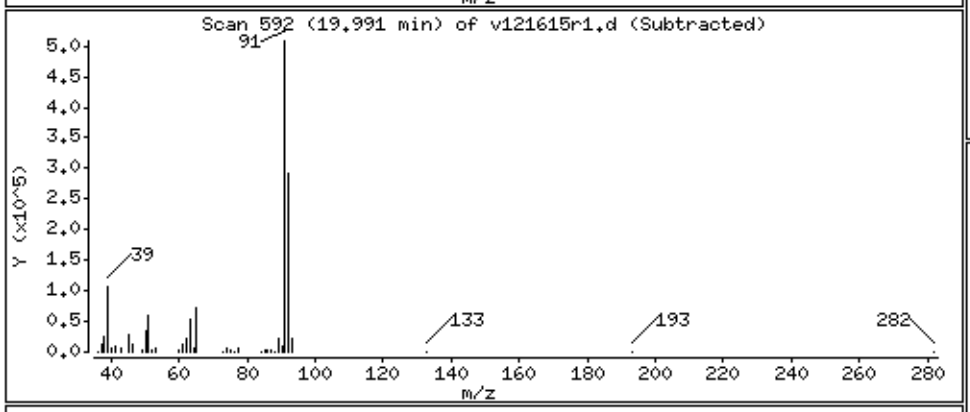
Column phase: RTx-624

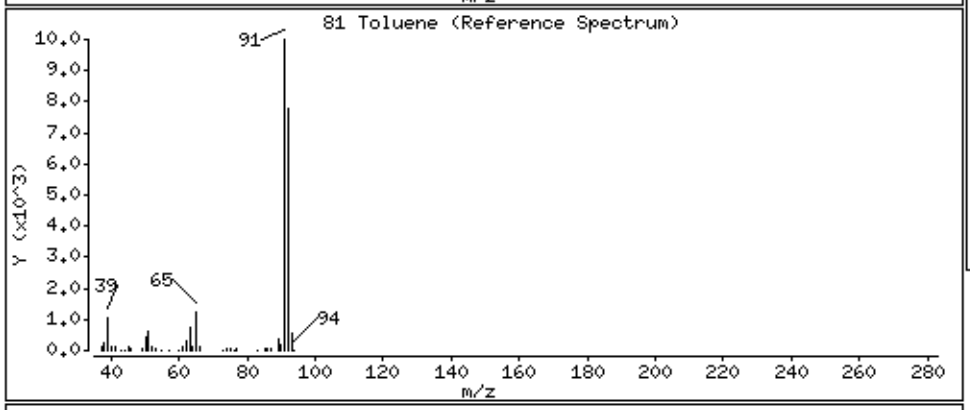
Column diameter: 0.32

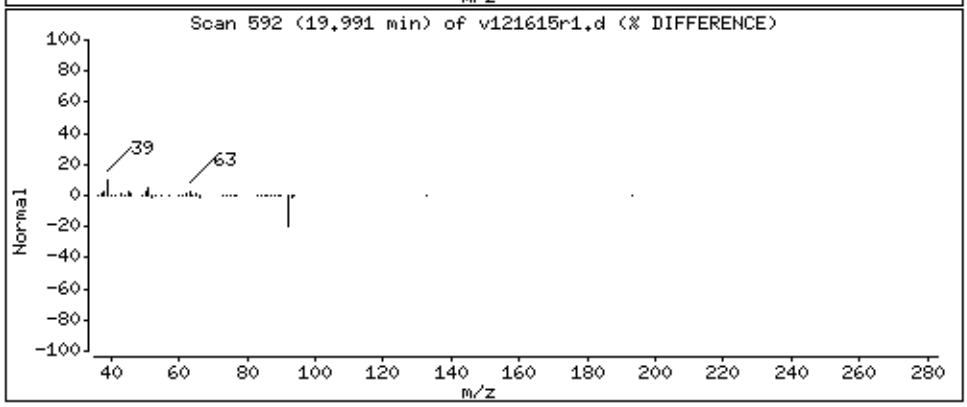
81 Toluene

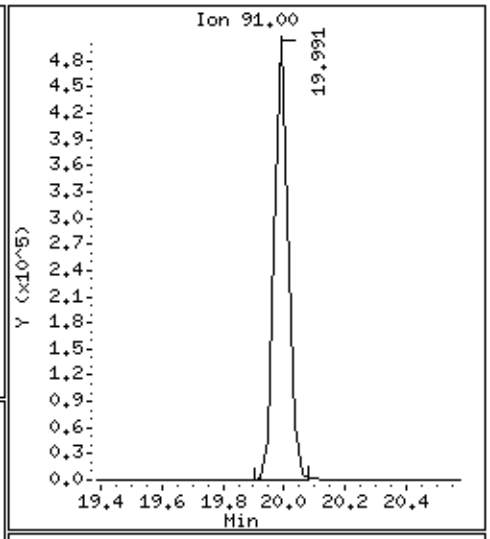
Concentration: 19.220 PPBV

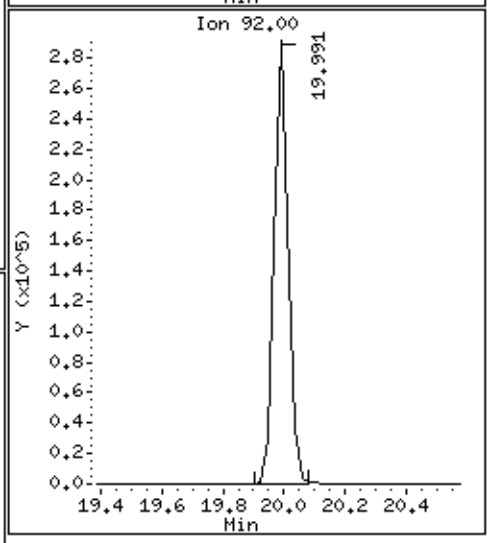


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

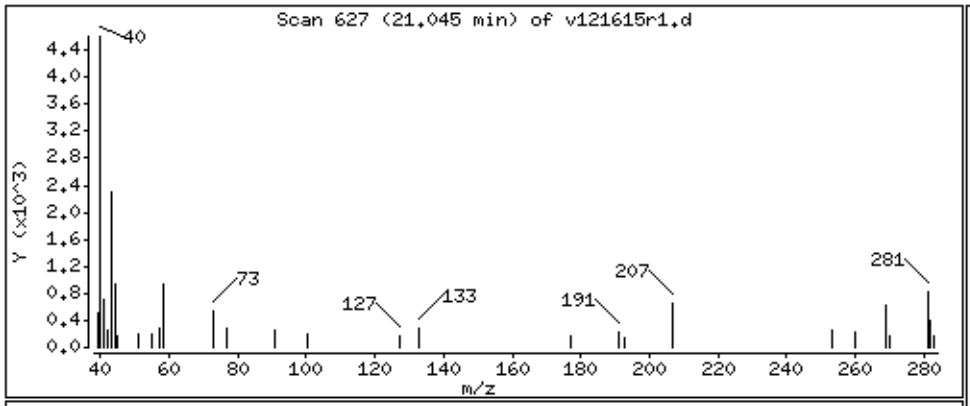
Operator: sn

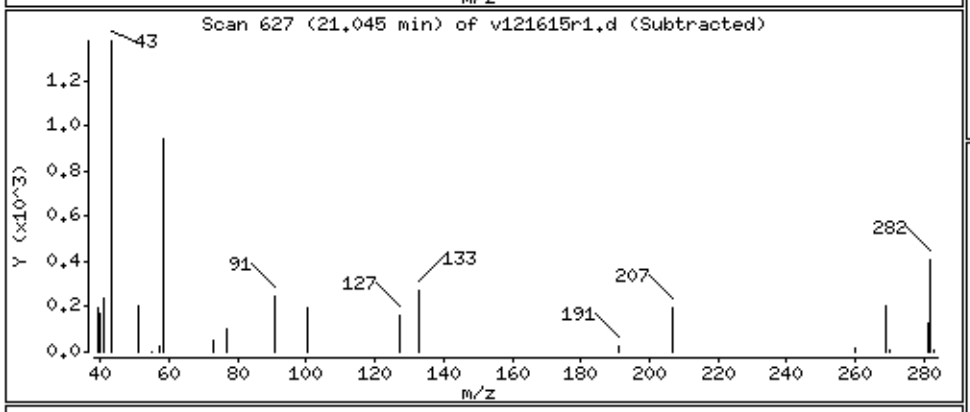
Column phase: RTx-624

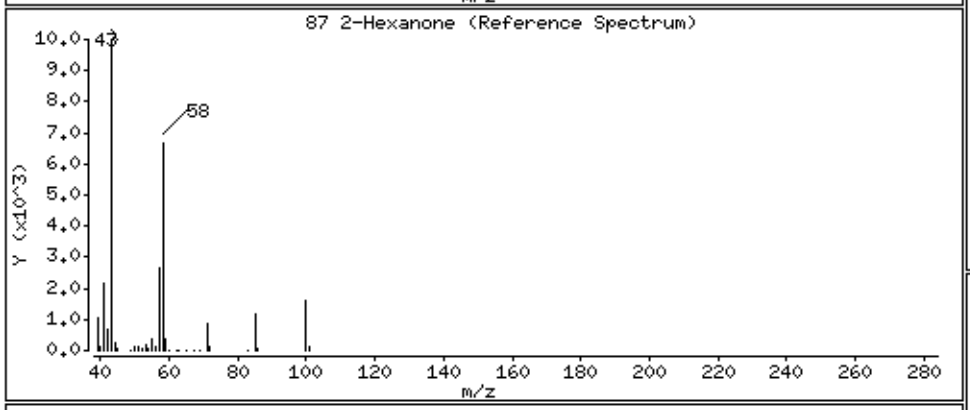
Column diameter: 0.32

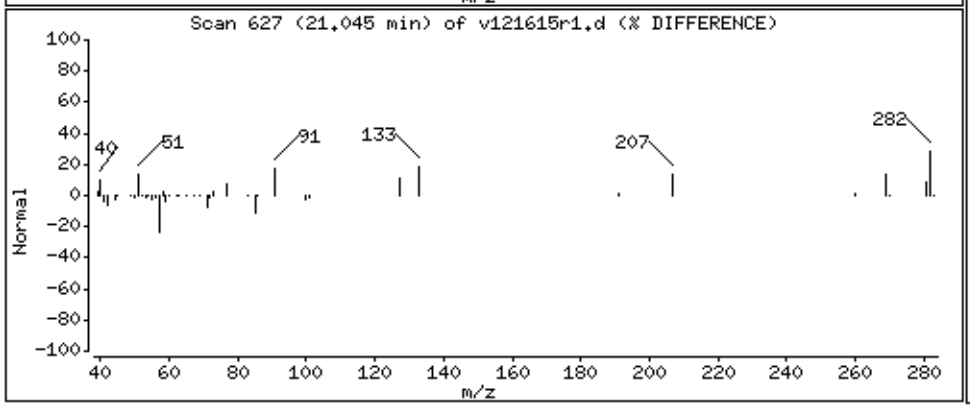
87 2-Hexanone

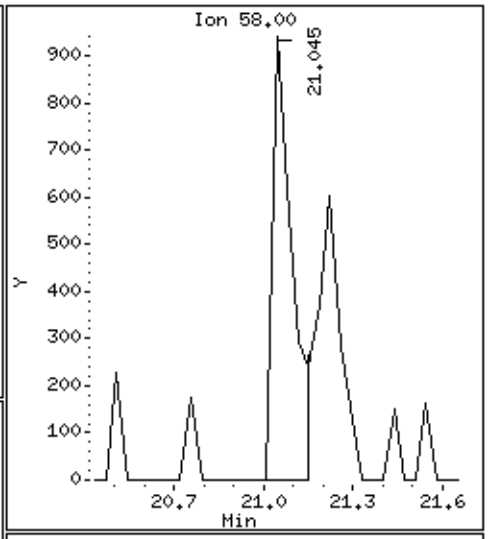
Concentration: 0.1251 PPBV

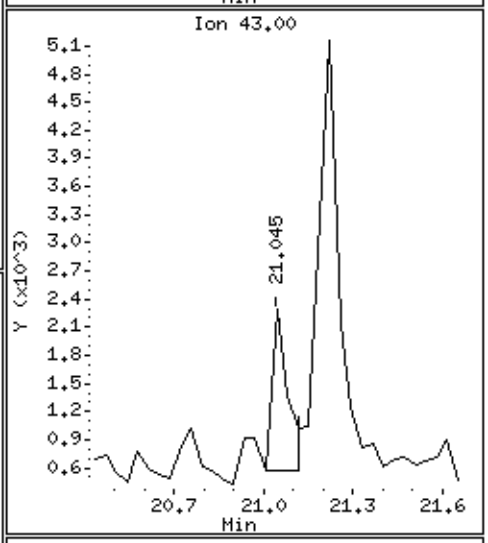


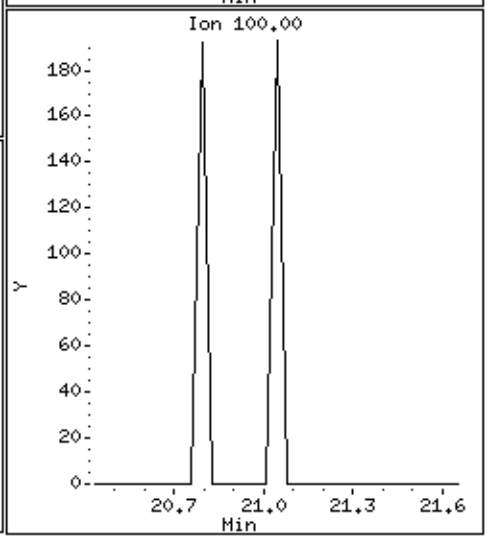



Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

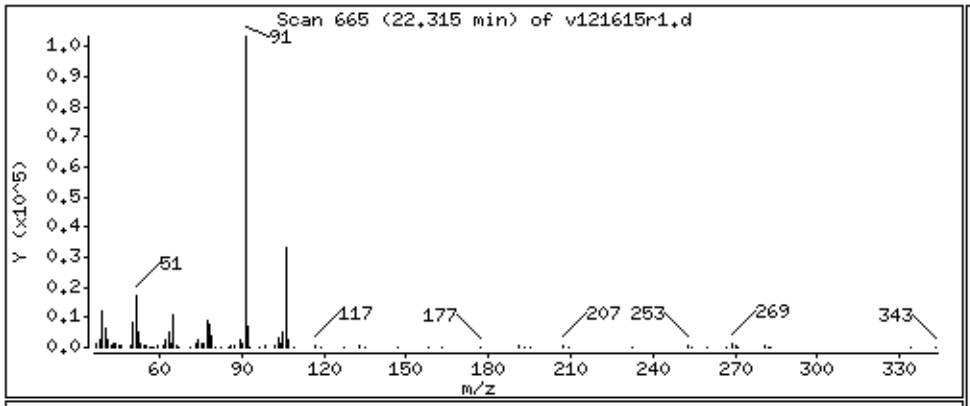
Operator: sn

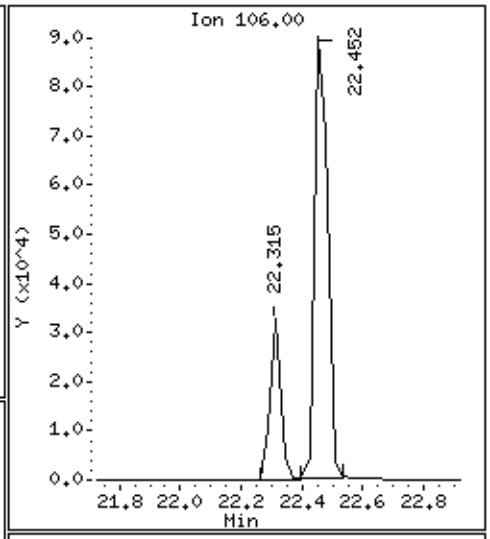
Column phase: RTx-624

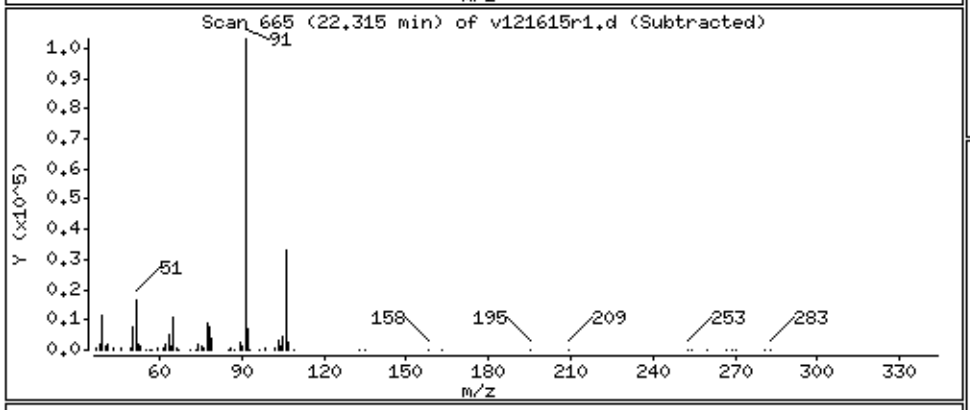
Column diameter: 0.32

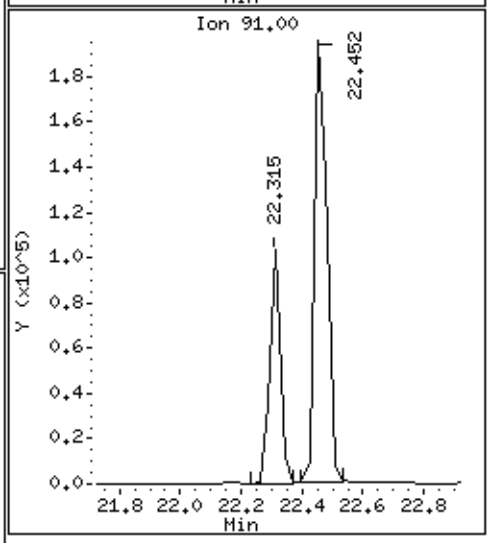
95 Ethyl Benzene

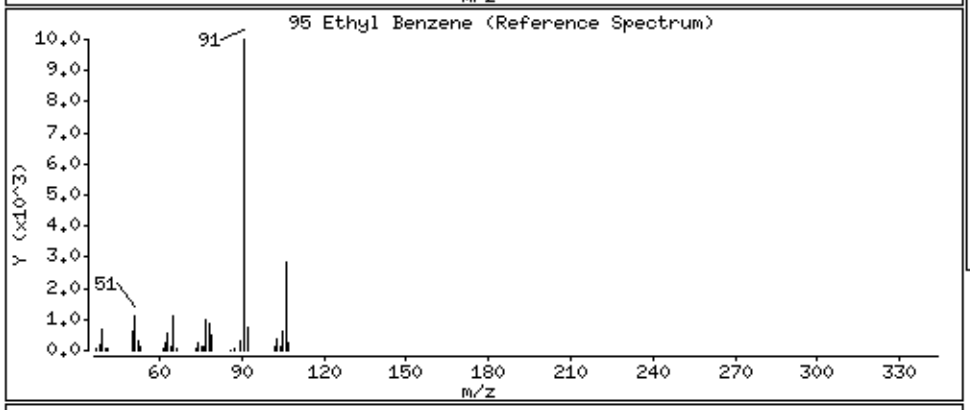
Concentration: 2.642 PPBV

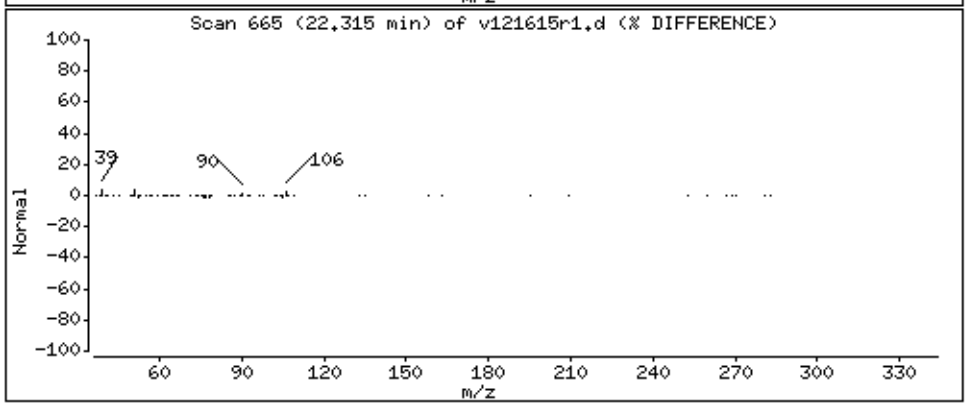


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d

Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

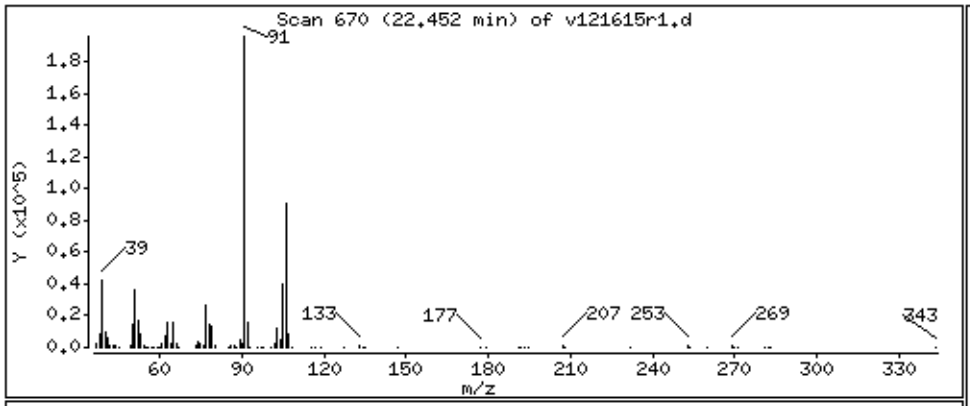
Operator: sn

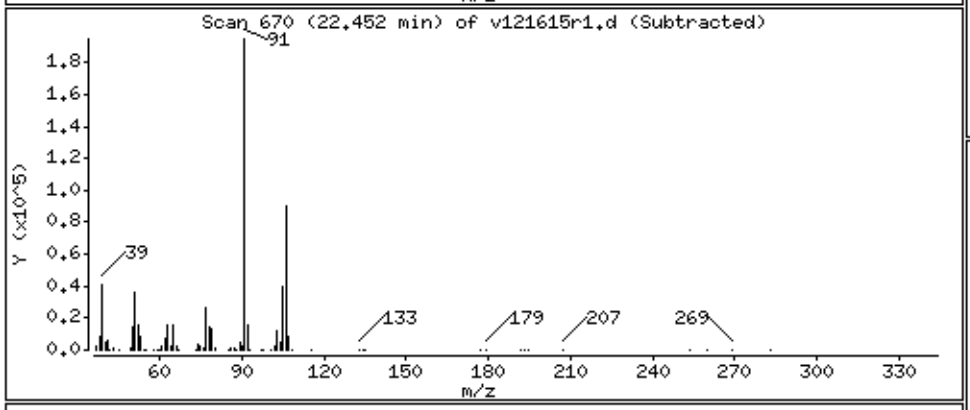
Column phase: RTx-624

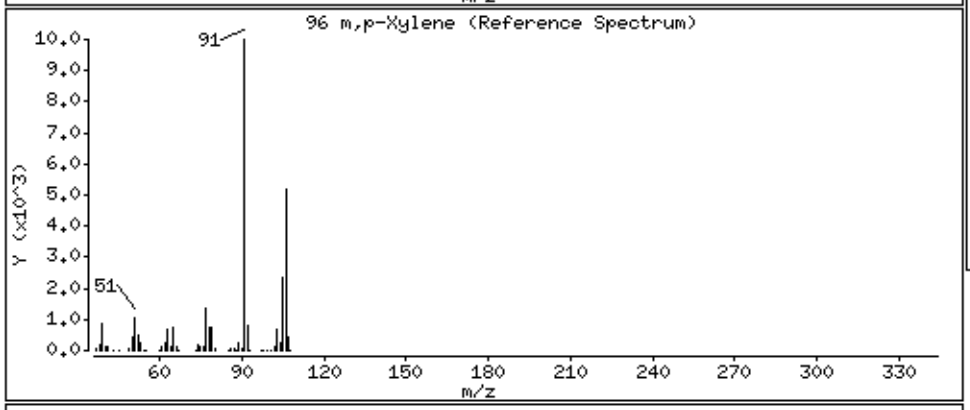
Column diameter: 0.32

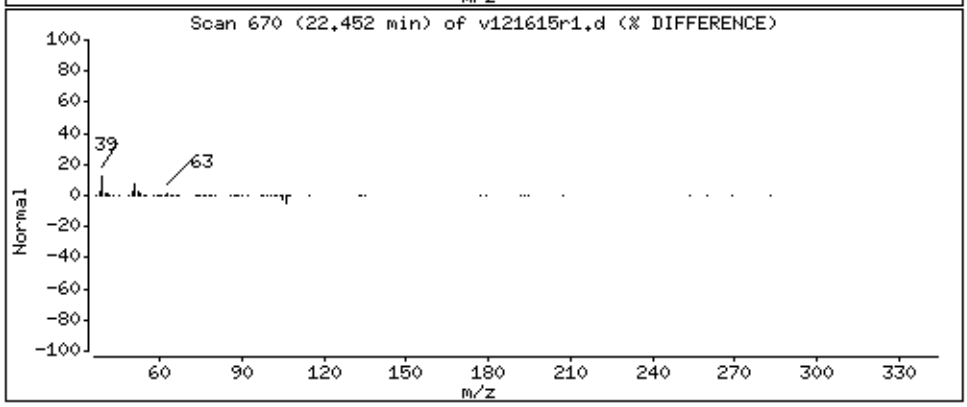
96 m,p-Xylene

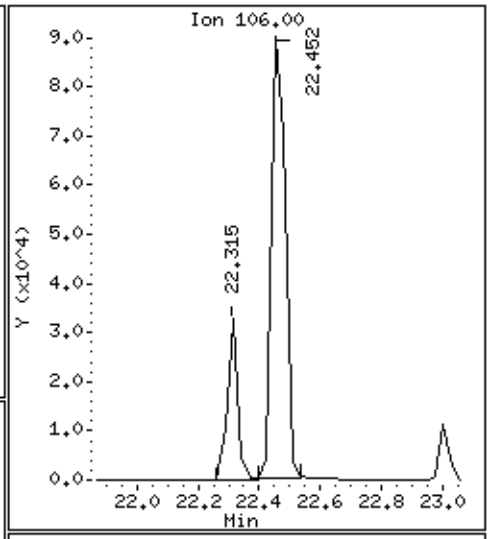
Concentration: 9.300 PPBV

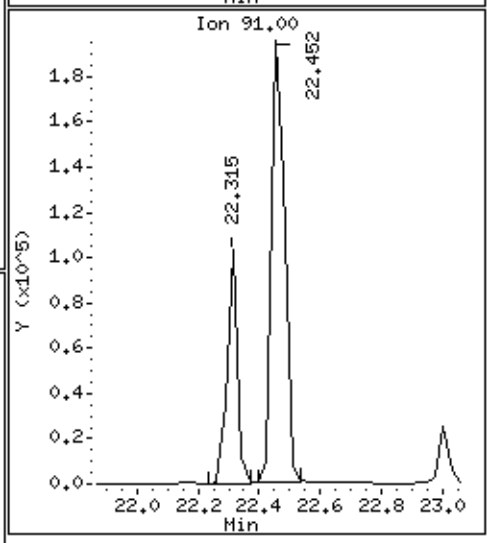


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

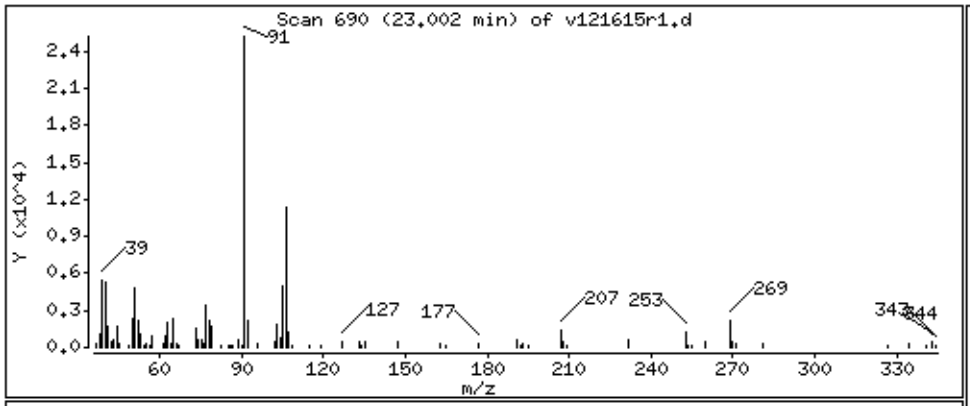
Operator: sn

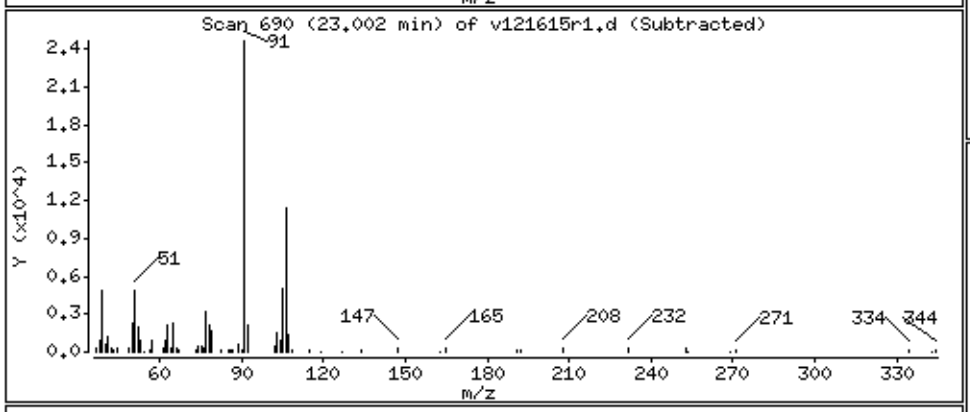
Column phase: RTx-624

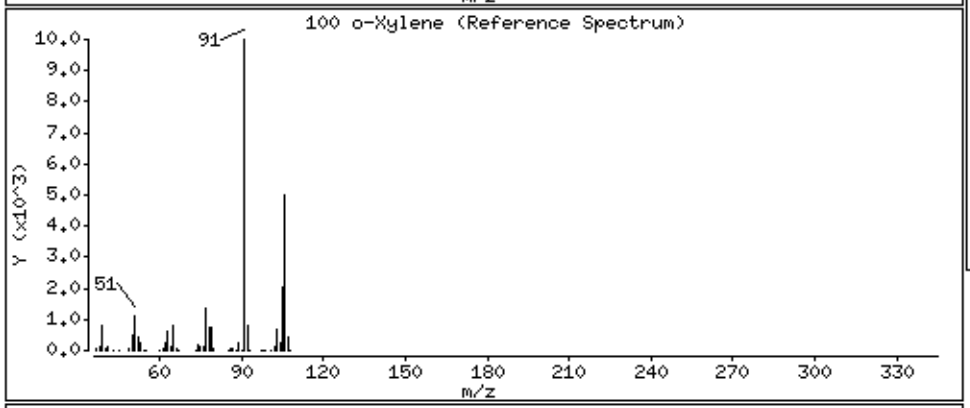
Column diameter: 0.32

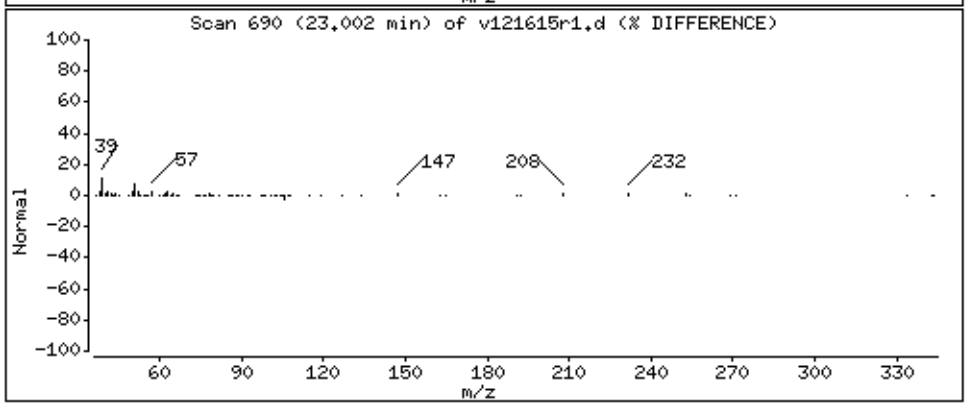
100 o-Xylene

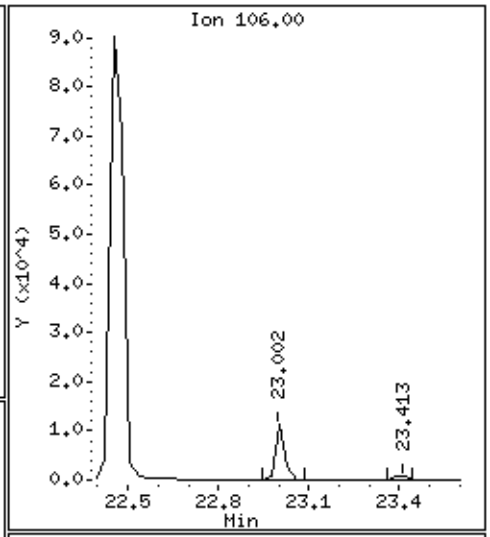
Concentration: 0.9291 PPBV

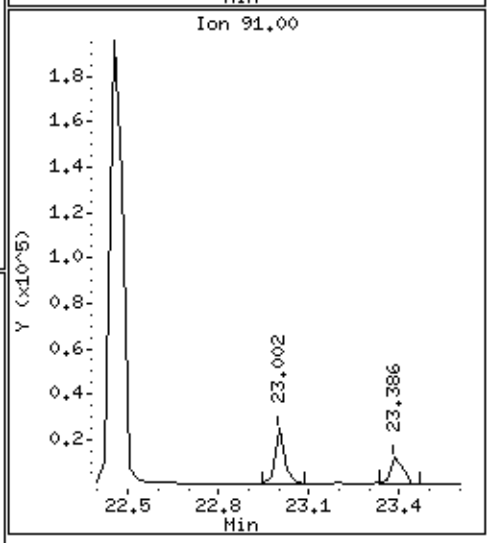


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

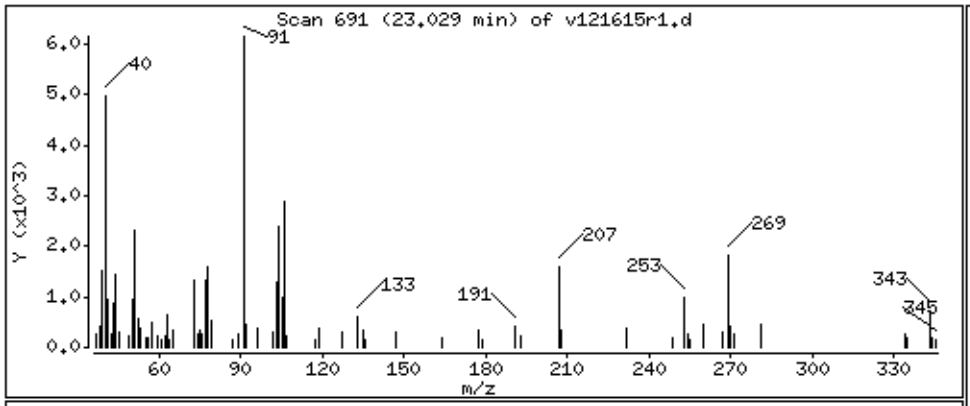
Operator: sn

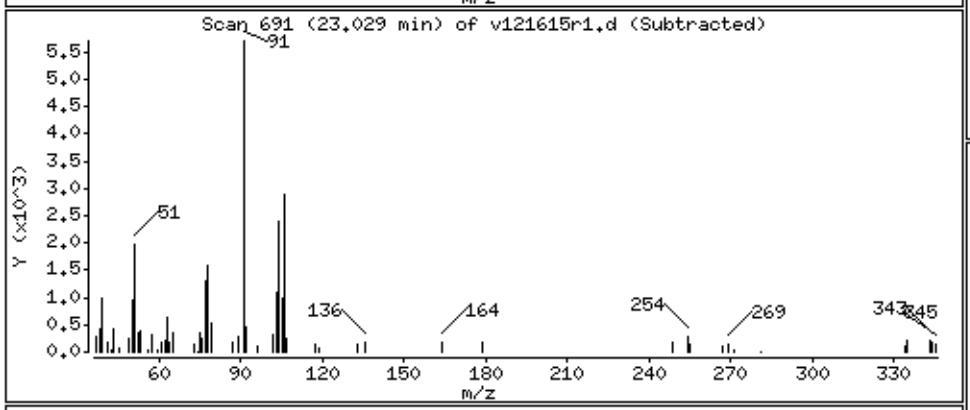
Column phase: RTx-624

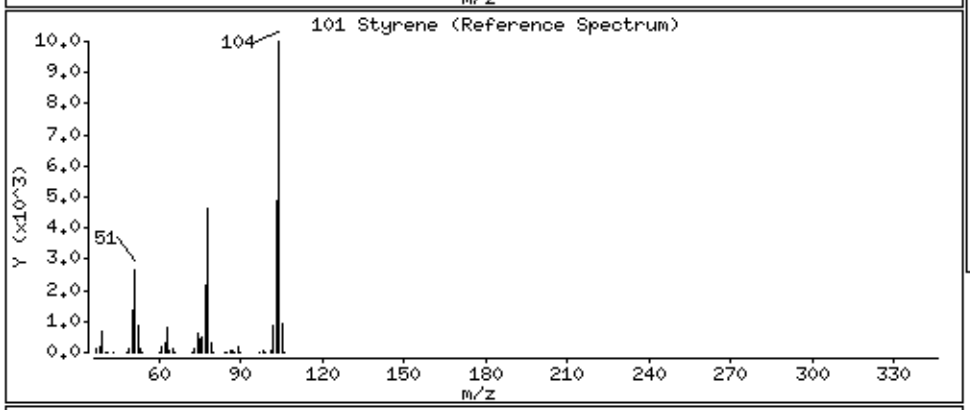
Column diameter: 0.32

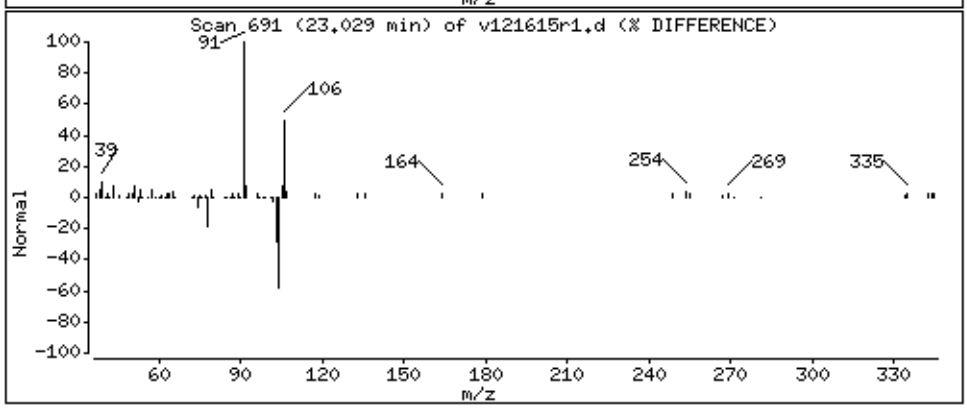
101 Styrene

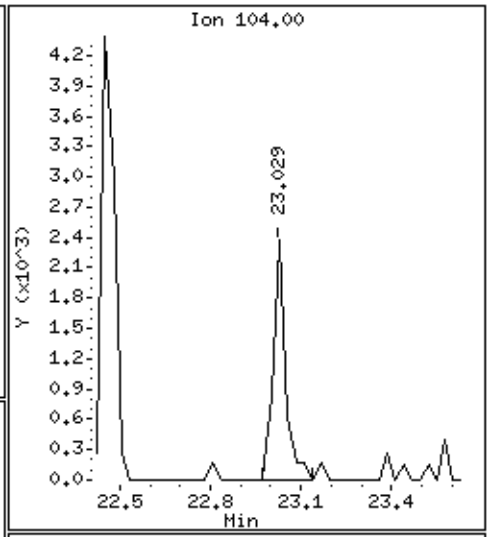
Concentration: 0.1700 PPBV

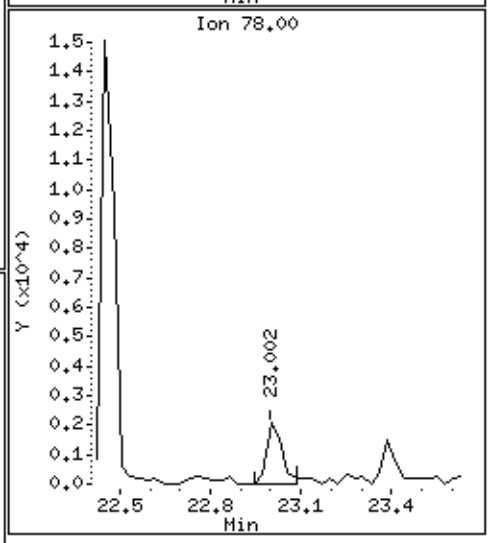


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d



Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

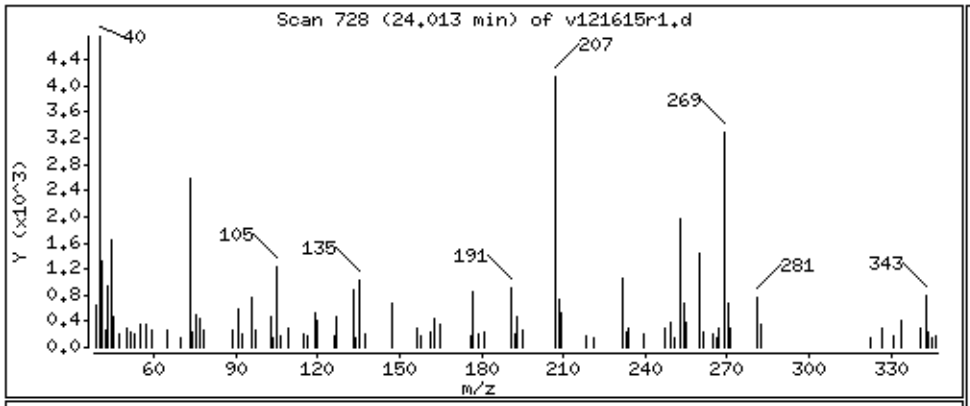
Operator: sn

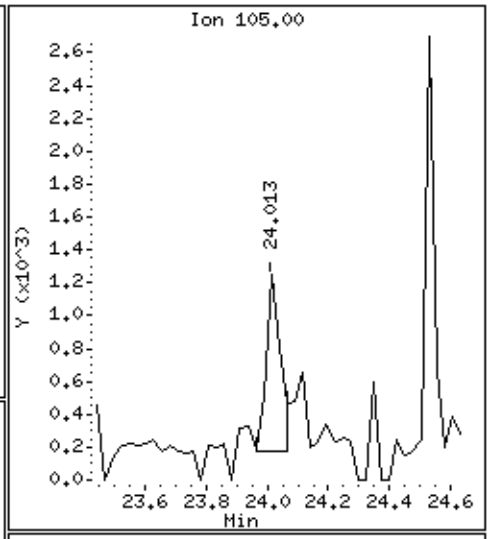
Column phase: RTx-624

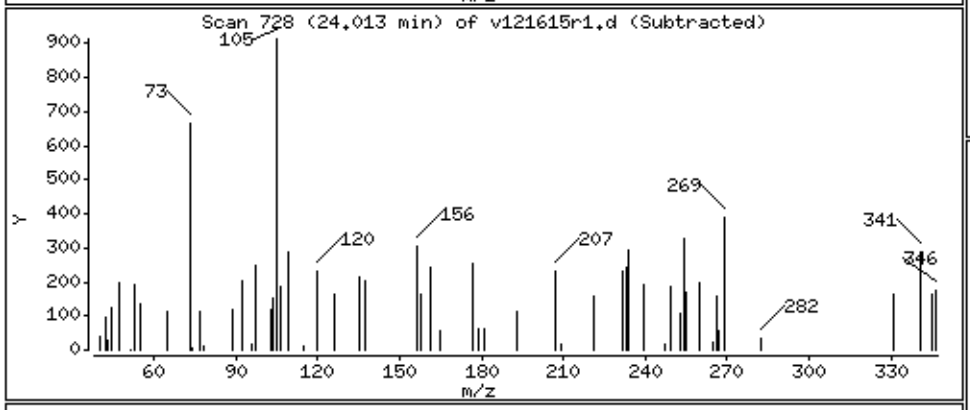
Column diameter: 0.32

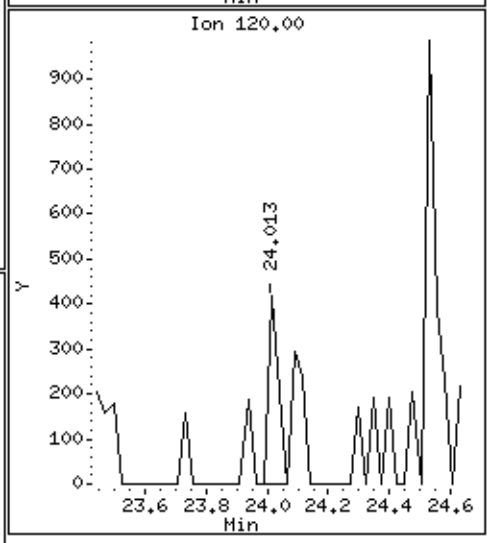
113 4-Ethyltoluene

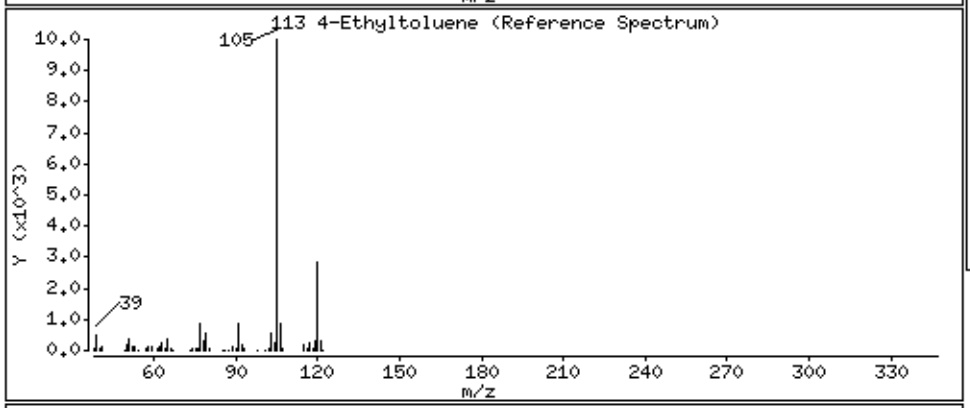
Concentration: 0.06862 PPBV

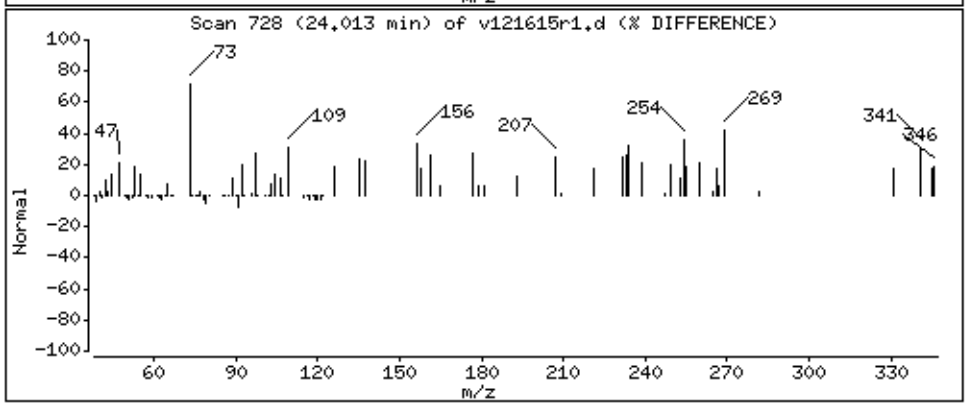


Data File: /chem/msdv.i/16Dec2014.b/v121615r1.d

Date : 16-DEC-2014 18:14

Client ID:

Instrument: msdv.i

Sample Info: 250ml #34440

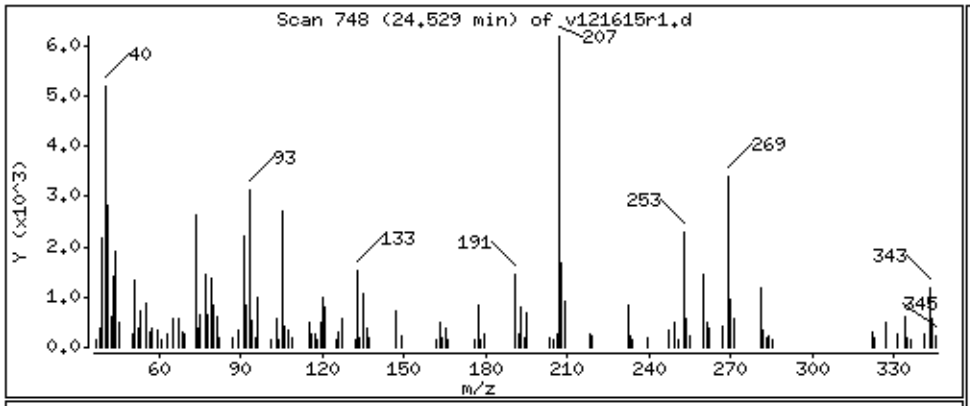
Operator: sn

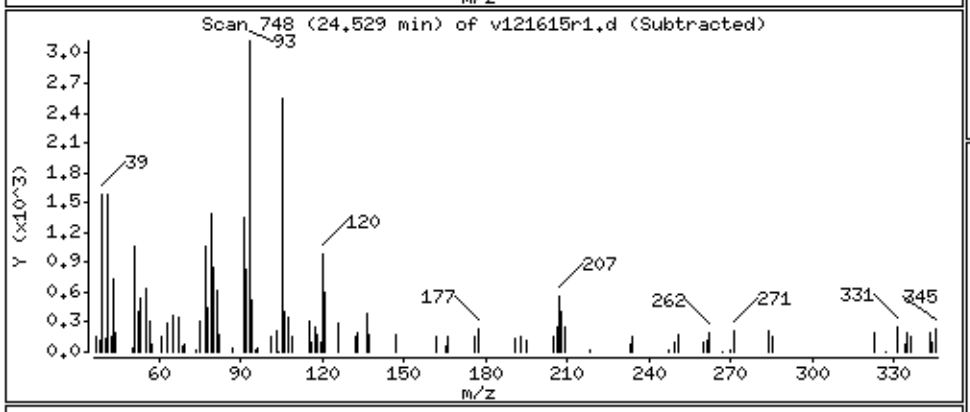
Column phase: RTx-624

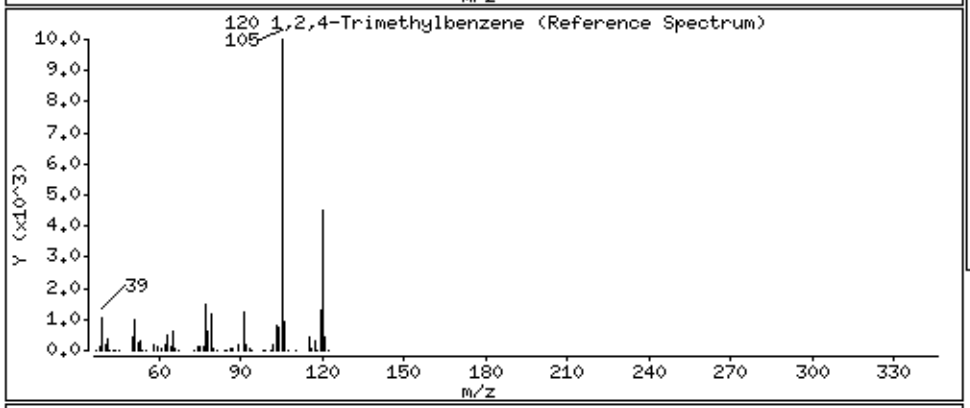
Column diameter: 0.32

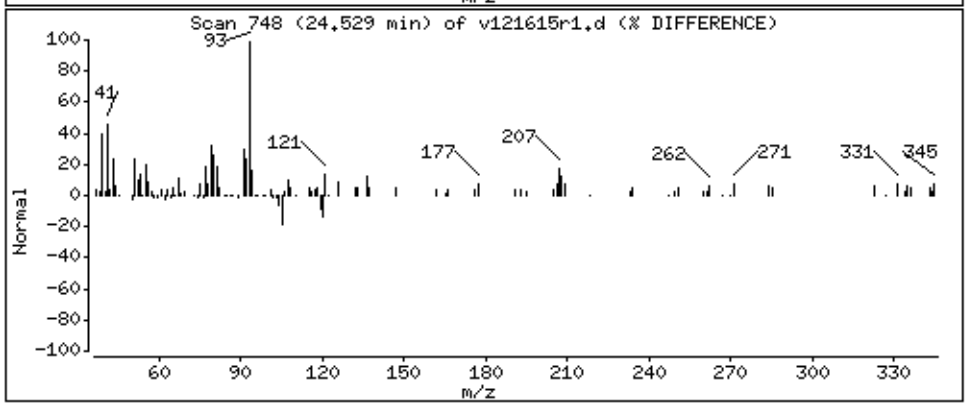
120 1,2,4-Trimethylbenzene

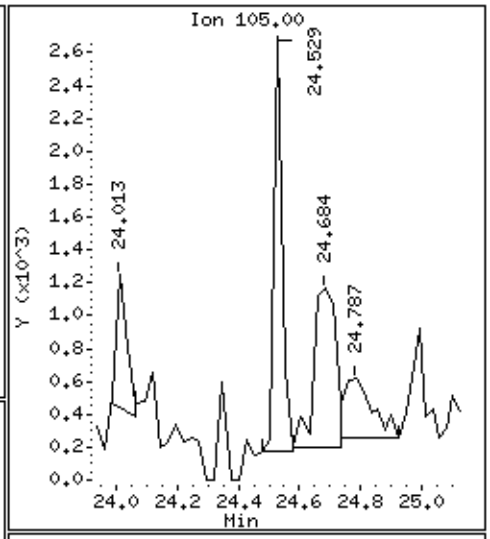
Concentration: 0.1348 PPBV

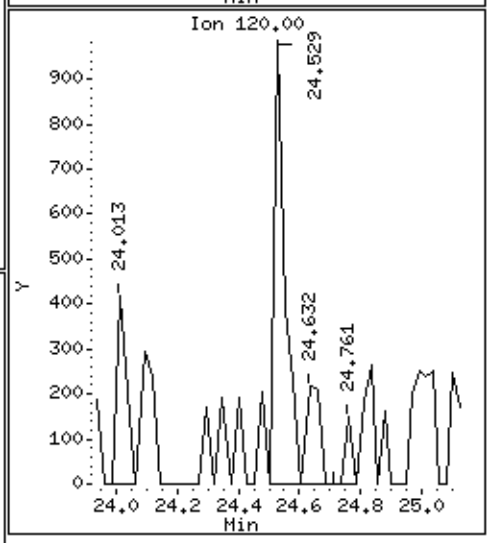


# QC Results and Raw Data

eurofins | Air Toxics

**Client Sample ID: Lab Blank**

**Lab ID#: 1412151AR1-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121605r1** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 11:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.50 | Not Detected | 2.5 | Not Detected |
| Freon 114 | 0.10 | Not Detected | 0.70 | Not Detected |
| Chloromethane | 0.50 | Not Detected | 1.0 | Not Detected |
| Vinyl Chloride | 0.10 | Not Detected | 0.26 | Not Detected |
| 1,3-Butadiene | 0.10 | Not Detected | 0.22 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| Freon 11 | 0.10 | Not Detected | 0.56 | Not Detected |
| Ethanol | 0.50 | Not Detected | 0.94 | Not Detected |
| Freon 113 | 0.10 | Not Detected | 0.77 | Not Detected |
| 1,1-Dichloroethene | 0.10 | Not Detected | 0.40 | Not Detected |
| Acetone | 0.50 | Not Detected | 1.2 | Not Detected |
| 2-Propanol | 0.50 | Not Detected | 1.2 | Not Detected |
| Carbon Disulfide | 0.50 | Not Detected | 1.6 | Not Detected |
| 3-Chloropropene | 0.50 | Not Detected | 1.6 | Not Detected |
| Methylene Chloride | 0.20 | Not Detected | 0.69 | Not Detected |
| Methyl tert-butyl ether | 0.10 | Not Detected | 0.36 | Not Detected |
| trans-1,2-Dichloroethene | 0.10 | Not Detected | 0.40 | Not Detected |
| Hexane | 0.10 | 0.10 J | 0.35 | 0.35 J |
| 1,1-Dichloroethane | 0.10 | Not Detected | 0.40 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.50 | Not Detected | 1.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.10 | Not Detected | 0.40 | Not Detected |
| Tetrahydrofuran | 0.50 | Not Detected | 1.5 | Not Detected |
| Chloroform | 0.10 | Not Detected | 0.49 | Not Detected |
| 1,1,1-Trichloroethane | 0.10 | Not Detected | 0.54 | Not Detected |
| Cyclohexane | 0.10 | Not Detected | 0.34 | Not Detected |
| Carbon Tetrachloride | 0.10 | Not Detected | 0.63 | Not Detected |
| 2,2,4-Trimethylpentane | 0.50 | Not Detected | 2.3 | Not Detected |
| Benzene | 0.10 | Not Detected | 0.32 | Not Detected |
| 1,2-Dichloroethane | 0.10 | Not Detected | 0.40 | Not Detected |
| Heptane | 0.10 | Not Detected | 0.41 | Not Detected |
| Trichloroethene | 0.10 | Not Detected | 0.54 | Not Detected |
| 1,2-Dichloropropane | 0.10 | Not Detected | 0.46 | Not Detected |
| 1,4-Dioxane | 0.10 | Not Detected | 0.36 | Not Detected |
| Bromodichloromethane | 0.10 | Not Detected | 0.67 | Not Detected |
| cis-1,3-Dichloropropene | 0.10 | Not Detected | 0.45 | Not Detected |
| 4-Methyl-2-pentanone | 0.10 | Not Detected | 0.41 | Not Detected |
| Toluene | 0.10 | Not Detected | 0.38 | Not Detected |
| trans-1,3-Dichloropropene | 0.10 | Not Detected | 0.45 | Not Detected |
| 1,1,2-Trichloroethane | 0.10 | Not Detected | 0.54 | Not Detected |
| Tetrachloroethene | 0.10 | Not Detected | 0.68 | Not Detected |
| 2-Hexanone | 0.50 | Not Detected | 2.0 | Not Detected |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1412151AR1-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121605r1** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 11:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Dibromochloromethane | 0.10 | Not Detected | 0.85 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.10 | Not Detected | 0.77 | Not Detected |
| Chlorobenzene | 0.10 | Not Detected | 0.46 | Not Detected |
| Ethyl Benzene | 0.10 | Not Detected | 0.43 | Not Detected |
| m,p-Xylene | 0.10 | Not Detected | 0.43 | Not Detected |
| o-Xylene | 0.10 | Not Detected | 0.43 | Not Detected |
| Styrene | 0.10 | Not Detected | 0.42 | Not Detected |
| Bromoform | 0.10 | Not Detected | 1.0 | Not Detected |
| Cumene | 0.10 | Not Detected | 0.49 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.10 | Not Detected | 0.69 | Not Detected |
| Propylbenzene | 0.10 | Not Detected | 0.49 | Not Detected |
| 4-Ethyltoluene | 0.10 | Not Detected | 0.49 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.10 | Not Detected | 0.49 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.10 | Not Detected | 0.49 | Not Detected |
| 1,3-Dichlorobenzene | 0.10 | Not Detected UJ | 0.60 | Not Detected UJ |
| 1,4-Dichlorobenzene | 0.10 | 0.038 J | 0.60 | 0.23 J |
| alpha-Chlorotoluene | 0.50 | 0.10 J0J | 2.6 | 0.54 J0J |
| 1,2-Dichlorobenzene | 0.10 | 0.046 J | 0.60 | 0.28 J |
| 1,2,4-Trichlorobenzene | 0.50 | 0.12 J | 3.7 | 0.88 J |
| Hexachlorobutadiene | 0.50 | 0.043 J | 5.3 | 0.46 J |
| Naphthalene | 0.50 | Not Detected | 2.6 | Not Detected |

J = Estimated value.
UJ = Analyte associated with low bias in the CCV and/or LCS.
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121605r1.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 16-DEC-2014 11:11
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 25313
Misc Info : Humid
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 01-Jul-2015 09:03 sblack Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: And19256r1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.933 (1.000) | 130 | 98254 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.933 (1.000) | 128 | 75668 | | | 47.55- 107.55 | 77.01 |
| 15.934 | 15.933 (1.000) | 49 | 247607 | | | 213.64- 273.64 | 252.01 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 426181 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 71916 | | | 0.00- 46.17 | 16.87 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 348367 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 211017 | | | 28.56- 88.56 | 60.57 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 185126 | 5.13392 | 5.134 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 95288 | | | 28.37- 88.37 | 51.47 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.879 | 19.879 (1.149) | 98 | 422391 | 5.15496 | 5.155 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 53145 | | | 0.00- 41.90 | 12.58 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 80 Toluene-d8 (continued) | | | | | | | |
| 19.879 | 19.879 (1.149) | 100 | 275979 | | | 34.60- 94.60 | 65.34 |
| $ 106 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 23.704 | 23.704 (1.067) | 174 | 139418 | 4.65359 | 4.654 | 80.00- 120.00 | 100.00 |
| 23.678 | 23.704 (1.066) | 95 | 191927 | | | 113.85- 173.85 | 137.66 |
| 23.704 | 23.704 (1.067) | 176 | 134710 | | | 68.89- 128.89 | 96.62 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 8561 | 0.09983 | 0.09983 | 80.00- 120.00 | 100.00(a) |
| 14.381 | 14.381 (0.903) | 43 | 8989 | | | 57.65- 117.65 | 105.00 |
| 14.408 | 14.381 (0.904) | 86 | 597 | | | 0.00- 40.67 | 6.97 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 25.014 | 24.992 (1.127) | 146 | 2087 | 0.03800 | 0.03800 | 80.00- 120.00 | 100.00(a) |
| 25.014 | 24.992 (1.127) | 148 | 2851 | | | 38.92- 98.92 | 136.61 |
| 25.104 | 24.992 (1.131) | 111 | 215 | | | 11.61- 71.61 | 10.30 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.149 | 25.126 (1.133) | 91 | 6137 | 0.10459 | 0.1046 | 80.00- 120.00 | 100.00(a) |
| 25.171 | 25.126 (1.134) | 126 | 893 | | | 0.00- 52.82 | 14.55 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.396 | 25.395 (1.144) | 146 | 2488 | 0.04590 | 0.04590 | 80.00- 120.00 | 100.00(a) |
| 25.396 | 25.395 (1.144) | 148 | 1253 | | | 33.86- 93.86 | 50.36 |
| 25.396 | 25.395 (1.144) | 111 | 999 | | | 15.01- 75.01 | 40.15 |
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 4726 | 0.11881 | 0.1188 | 80.00- 120.00 | 100.00(a) |
| 27.077 | 27.077 (1.219) | 182 | 4735 | | | 64.14- 124.14 | 100.19 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.166 (1.223) | 225 | 1443 | 0.04338 | 0.04338 | 80.00- 120.00 | 100.00(a) |
| 27.167 | 27.166 (1.223) | 223 | 839 | | | 44.27- 104.27 | 58.14 |

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121605r1.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: Humid

Calibration Date: 16-DEC-2014
Calibration Time: 08:42
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 98254 | -10.45 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 426181 | -4.34 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 348367 | -3.52 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 01-Jul-2015 09:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: And19256r1.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: Humid

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.134 | 102.68 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.155 | 103.10 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.654 | 93.07 | 70-130 |

Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d



Date : 16-DEC-2014 11:11

Client ID: Lab Blank

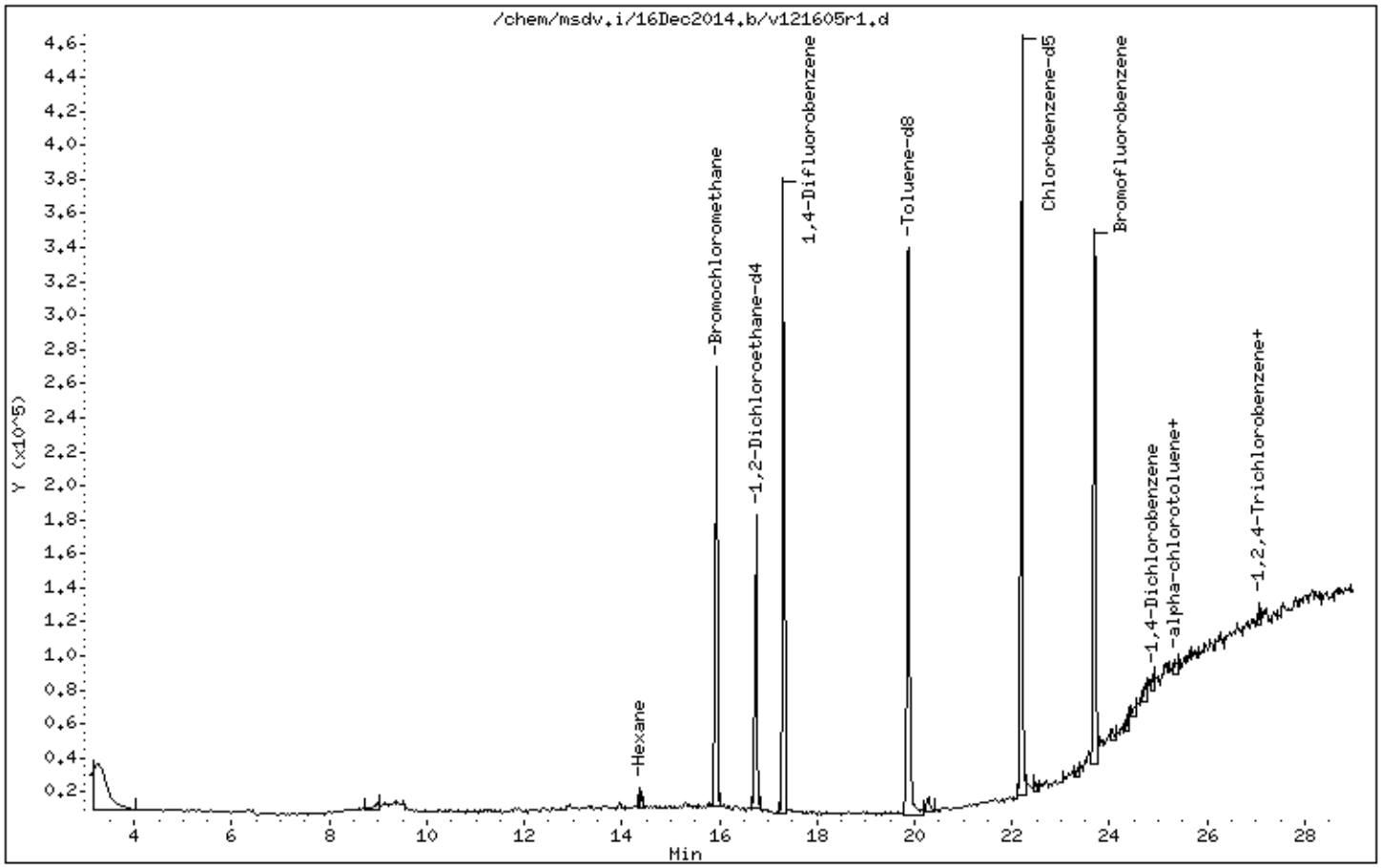
Instrument: msdv.i

Sample Info: 250mL# 25313

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d



Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

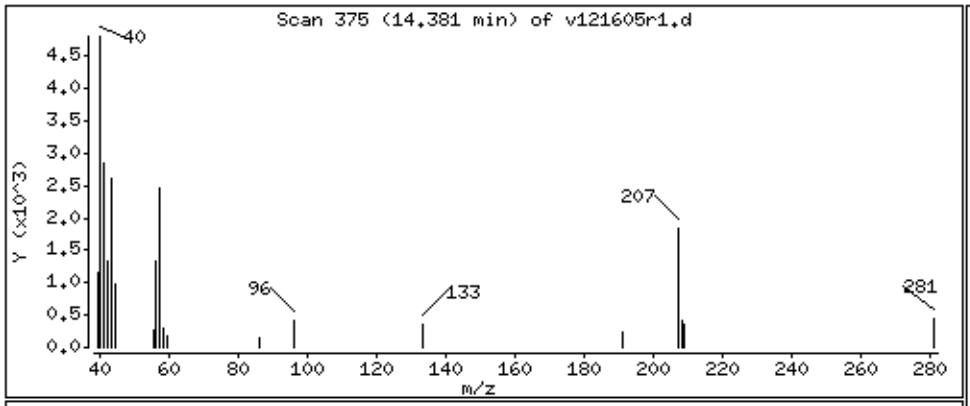
Operator: ef

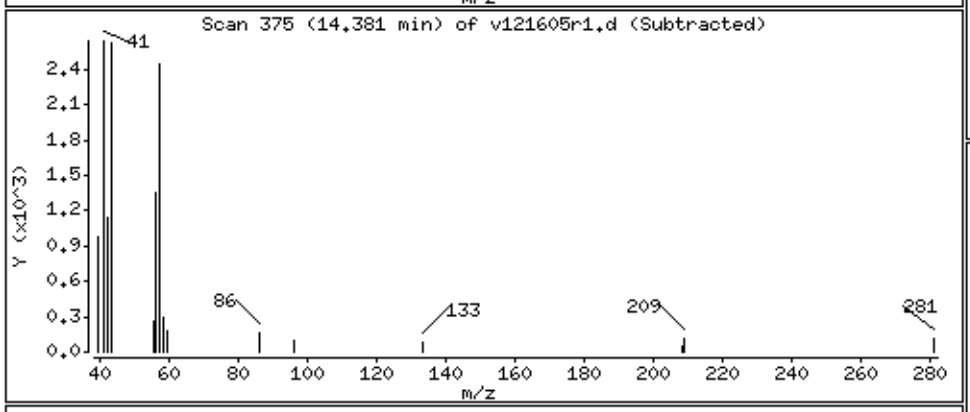
Column phase: RTx-624

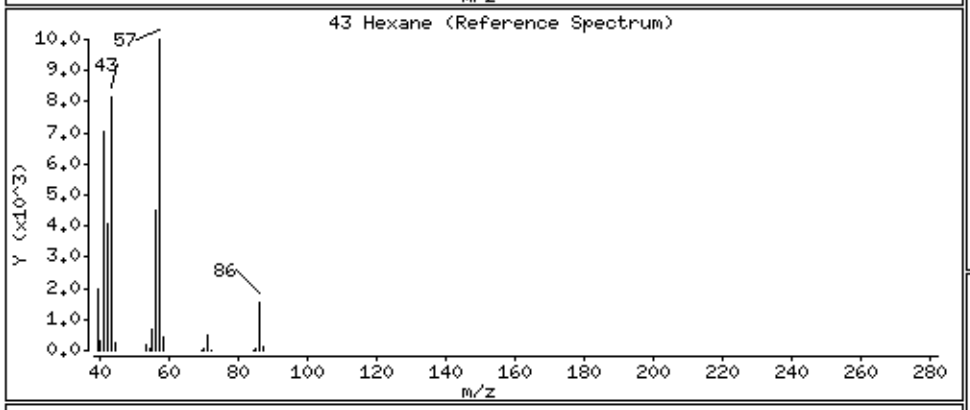
Column diameter: 0.32

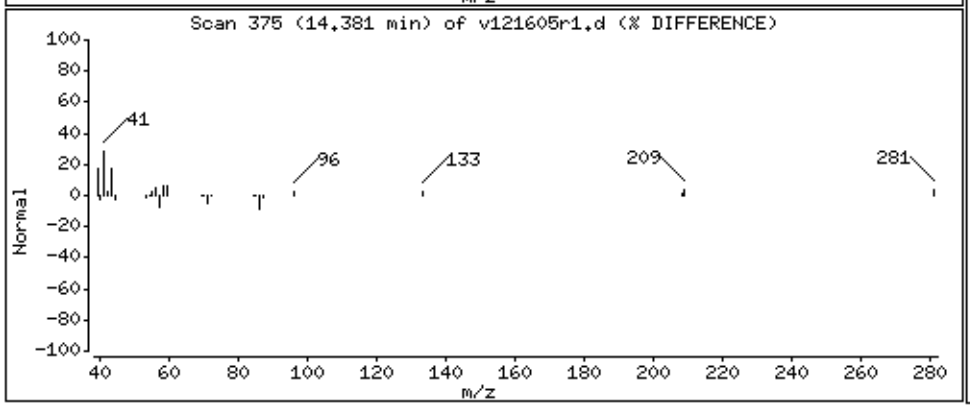
43 Hexane

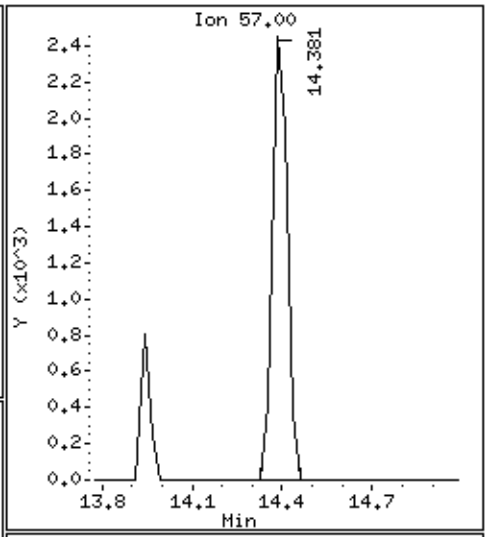
Concentration: 0.09983 PPBV

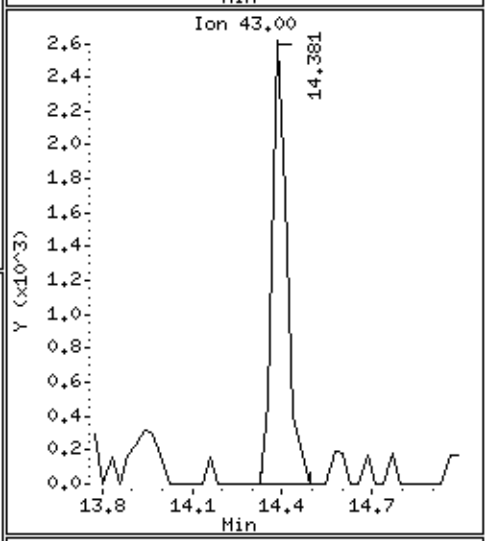


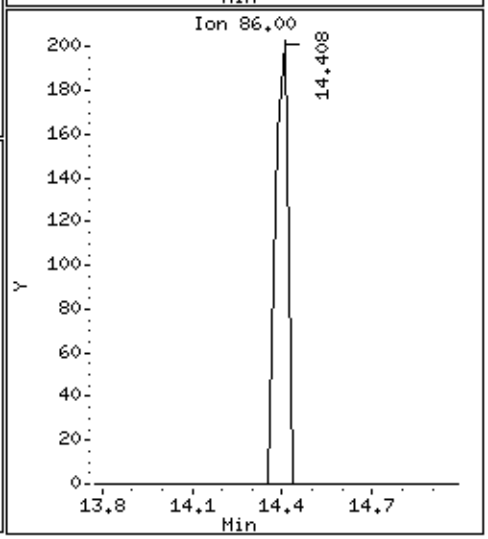



Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d



Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

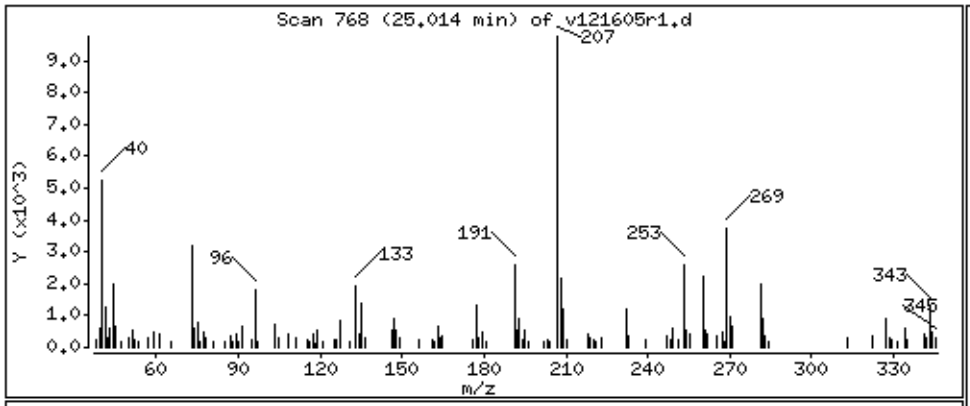
Operator: ef

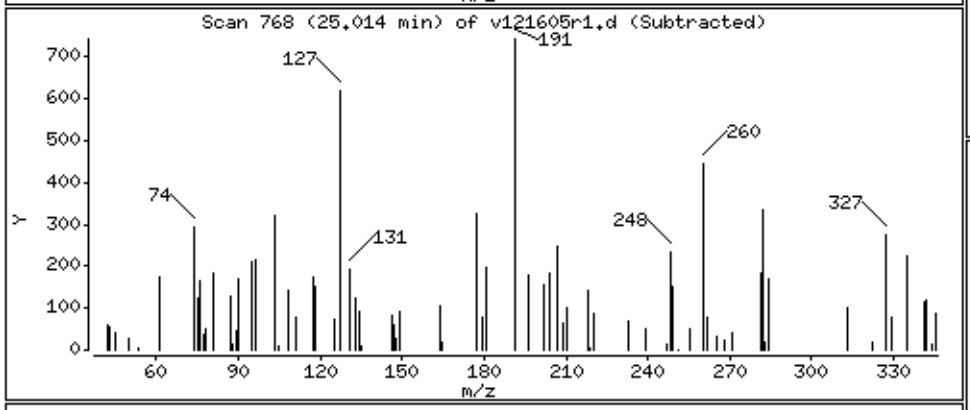
Column phase: RTx-624

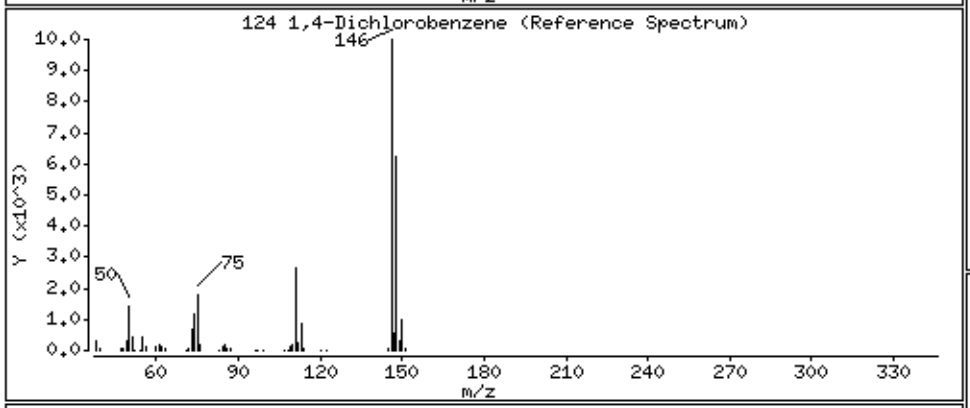
Column diameter: 0.32

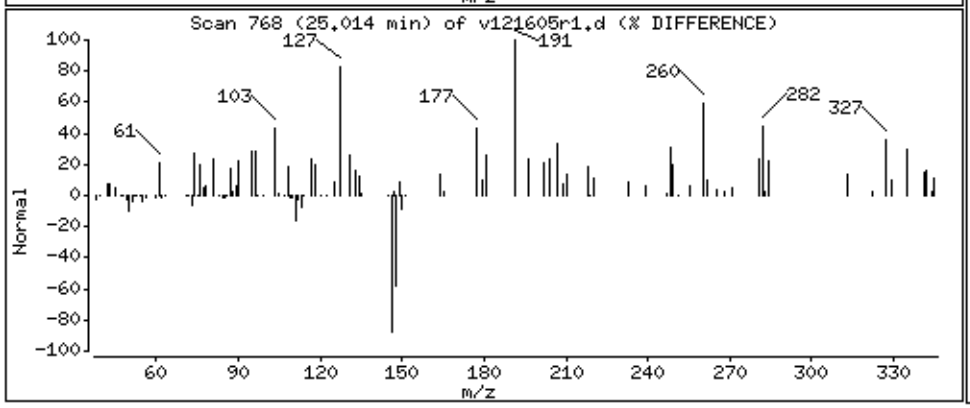
124 1,4-Dichlorobenzene

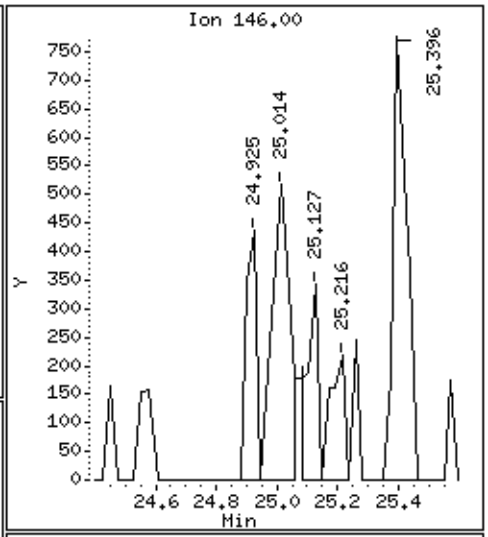
Concentration: 0.03800 PPBV

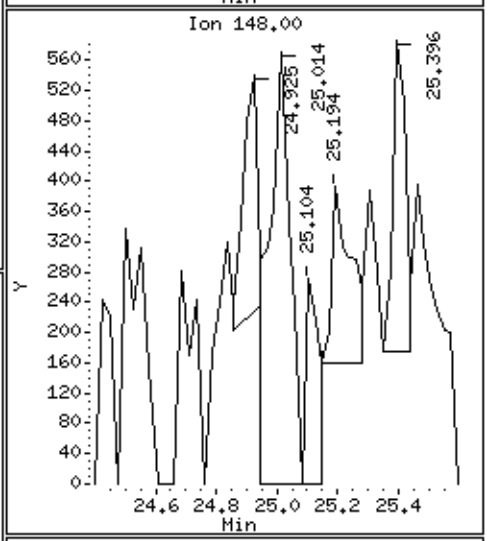


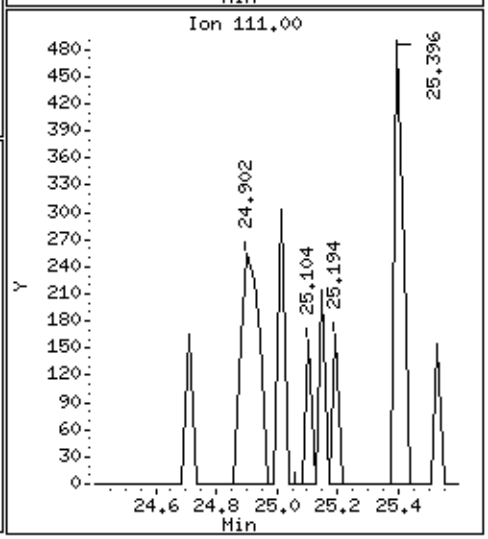



Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d

Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

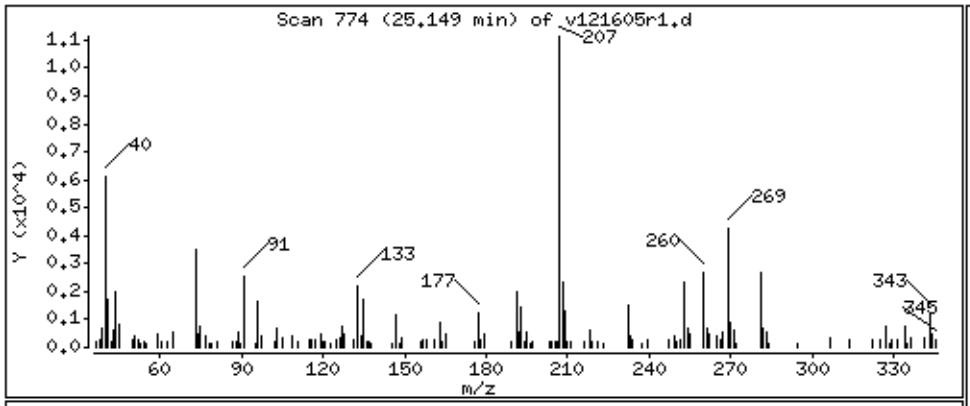
Operator: ef

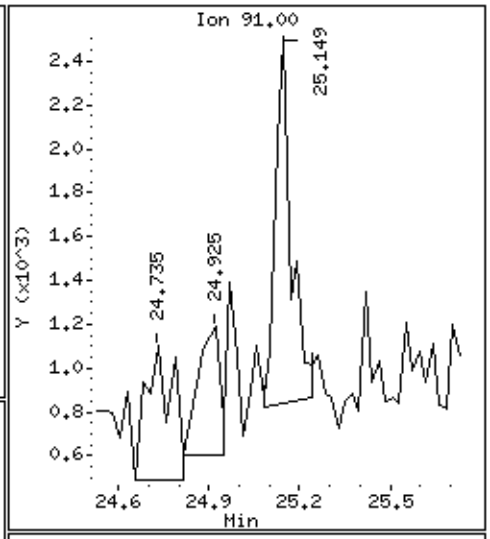
Column phase: RTx-624

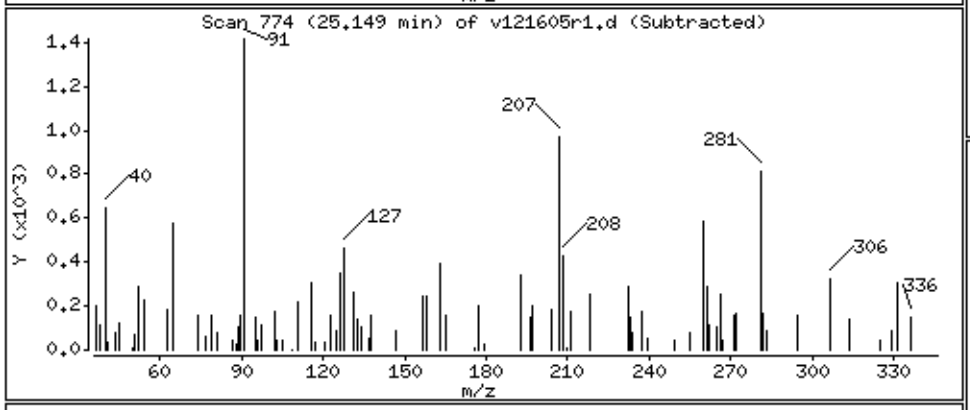
Column diameter: 0.32

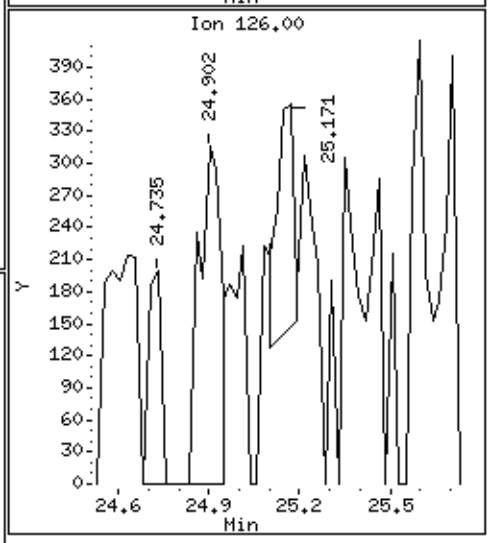
127 alpha-chlorotoluene

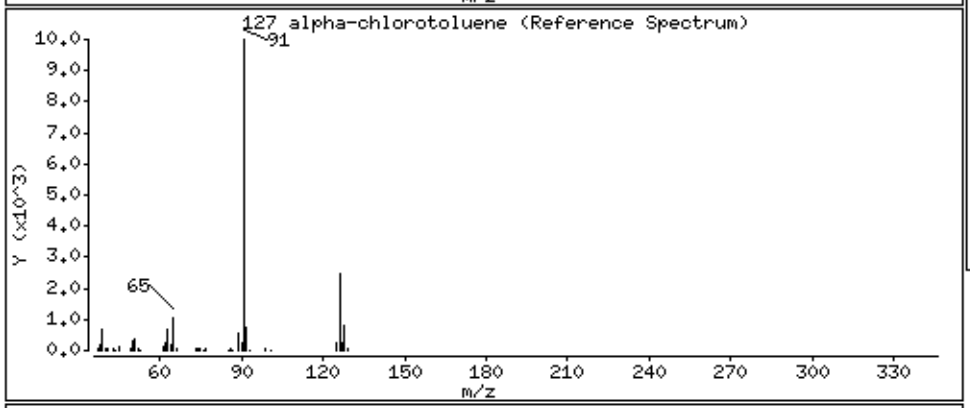
Concentration: 0.1046 PPBV

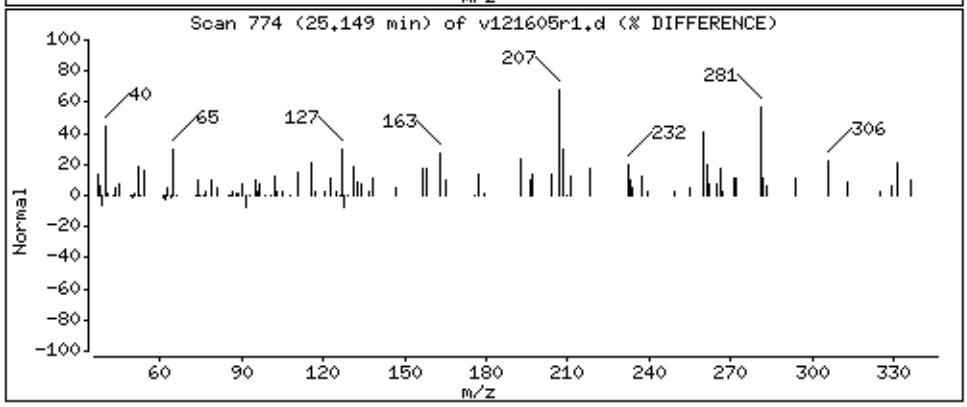


Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d

Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

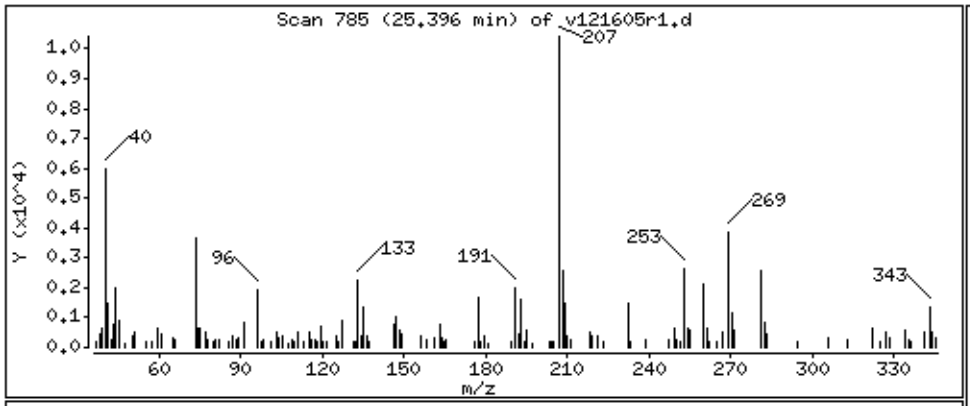
Operator: ef

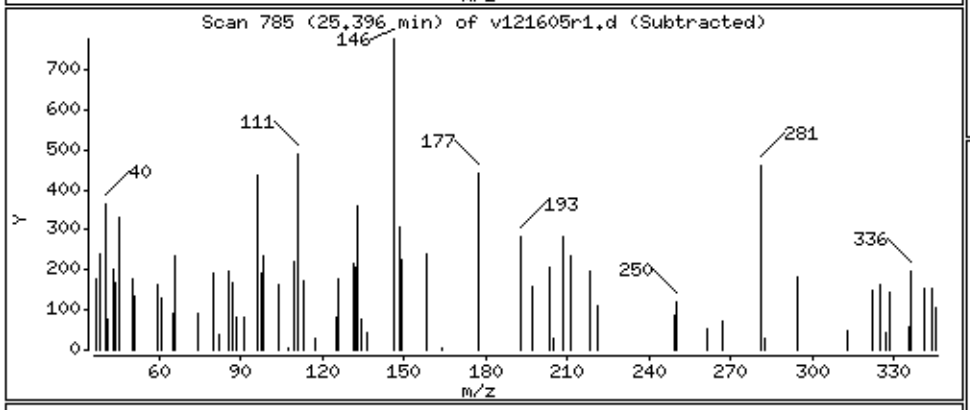
Column phase: RTx-624

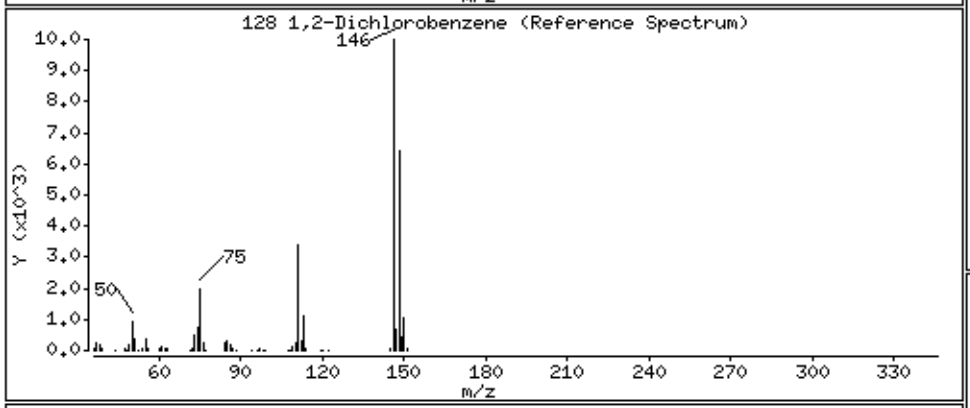
Column diameter: 0.32

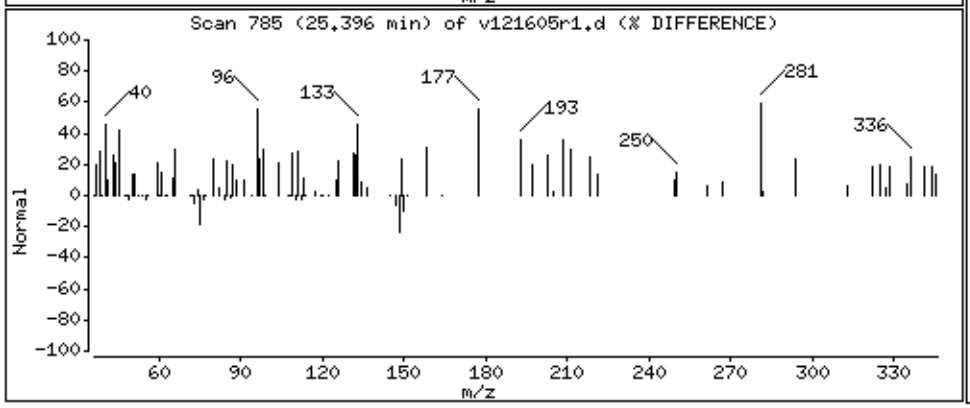
128 1,2-Dichlorobenzene

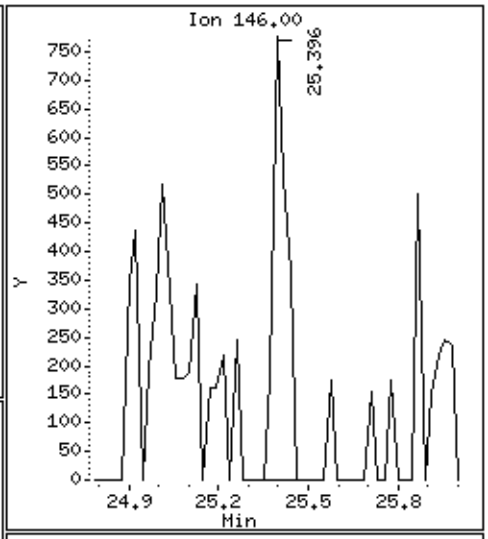
Concentration: 0.04590 PPBV

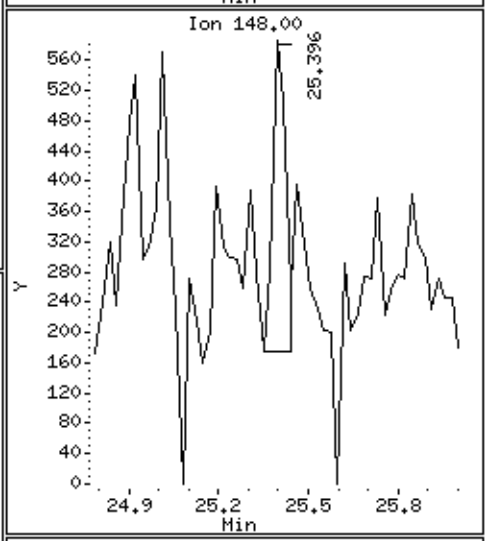


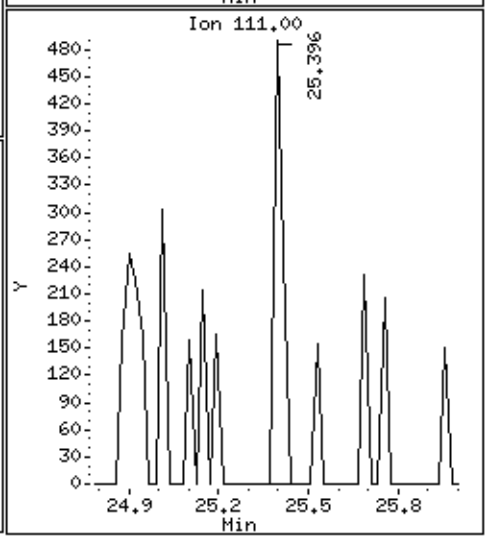



Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d

Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

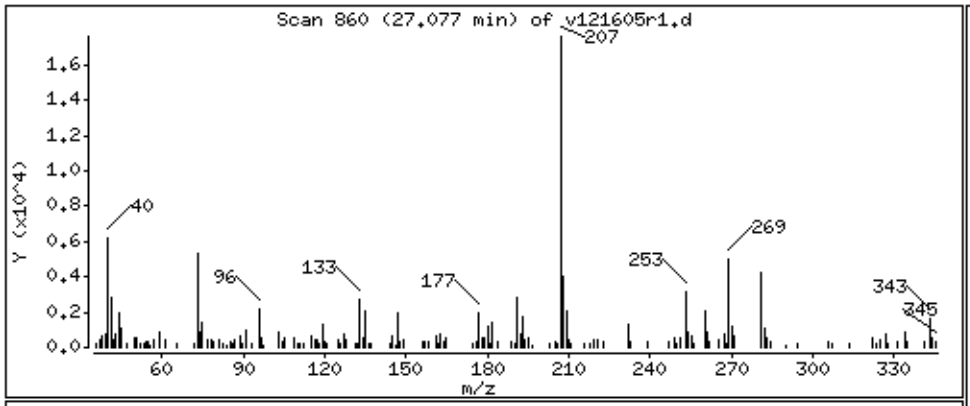
Operator: ef

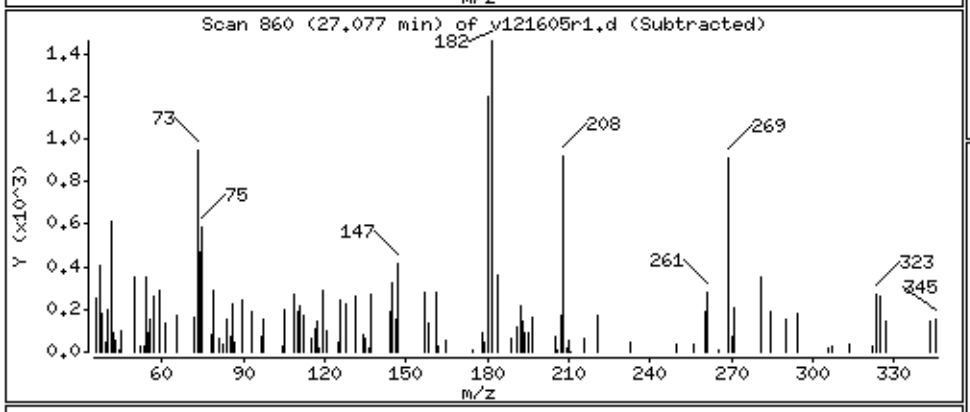
Column phase: RTx-624

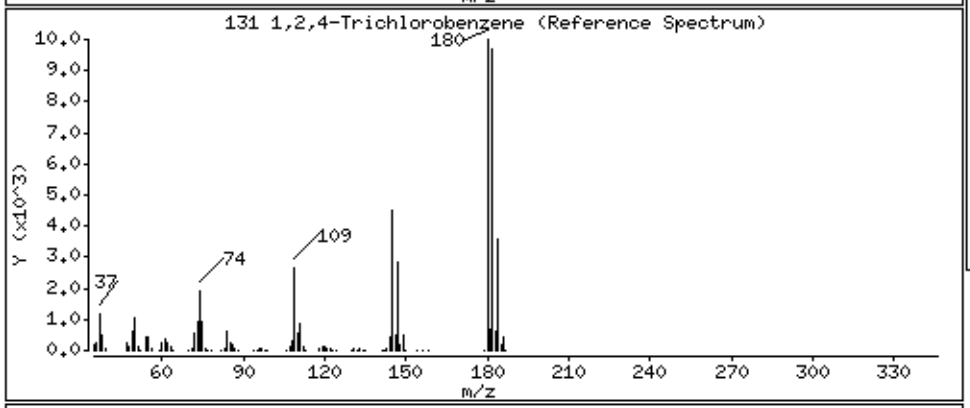
Column diameter: 0.32

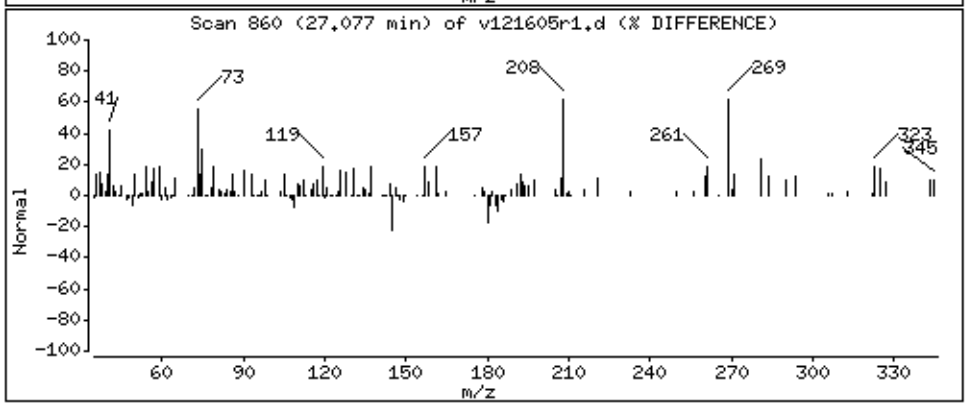
131 1,2,4-Trichlorobenzene

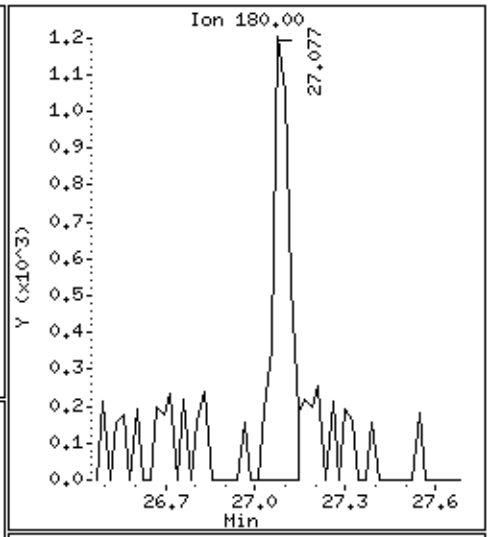
Concentration: 0.1188 PPBV

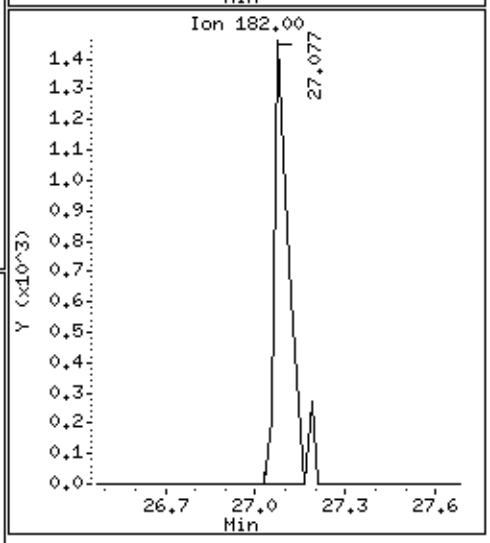


Data File: /chem/msdv.i/16Dec2014.b/v121605r1.d

Date : 16-DEC-2014 11:11

Client ID: Lab Blank

Instrument: msdv.i

Sample Info: 250mL# 25313

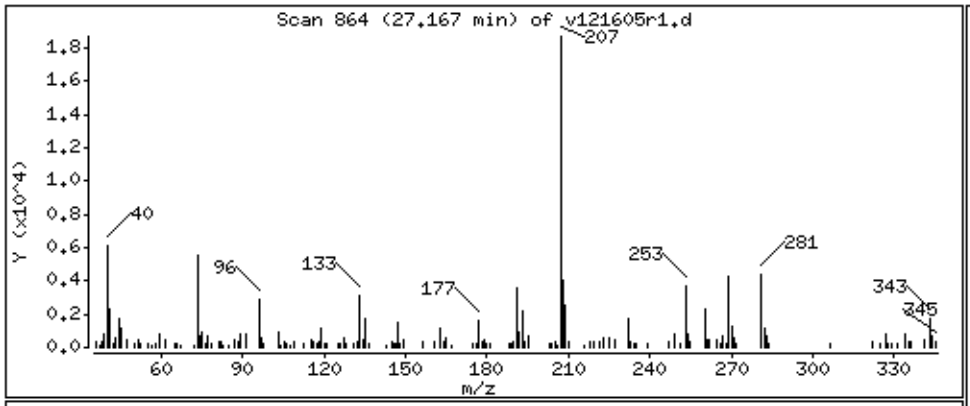
Operator: ef

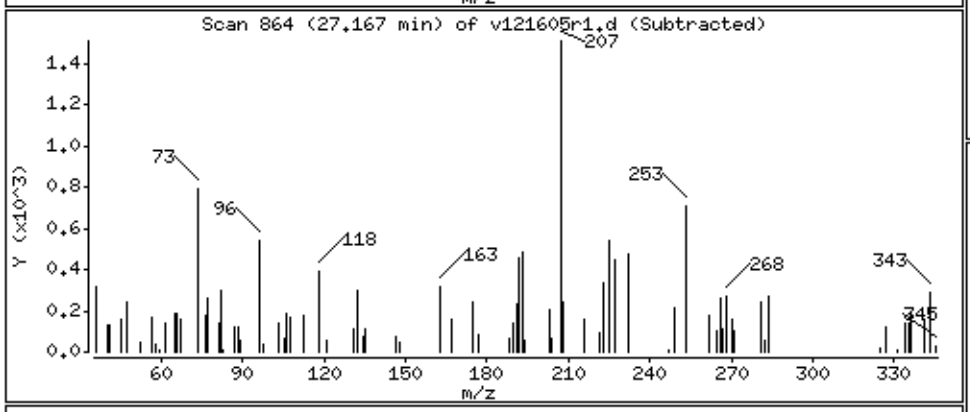
Column phase: RTx-624

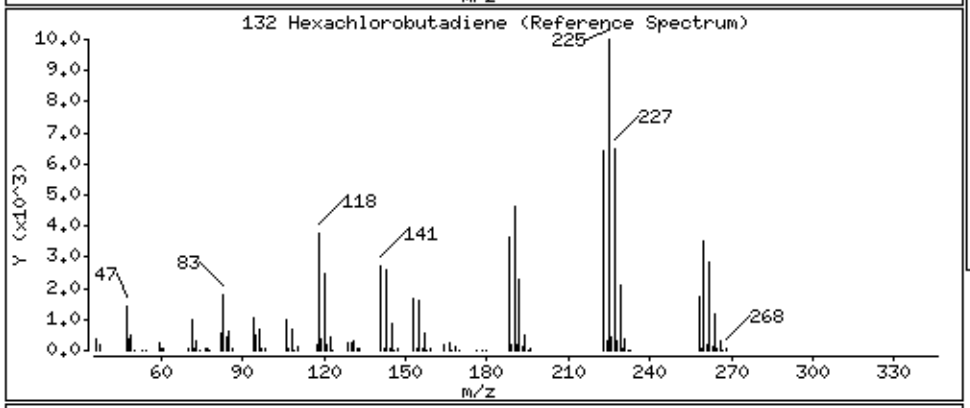
Column diameter: 0.32

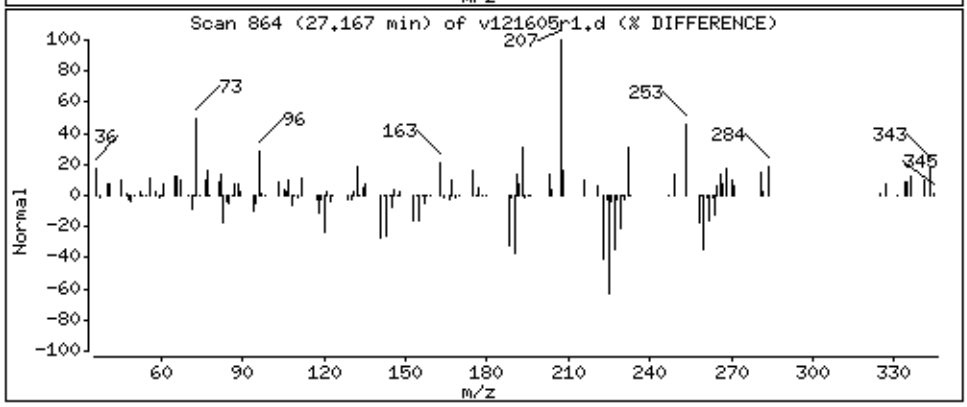
132 Hexachlorobutadiene

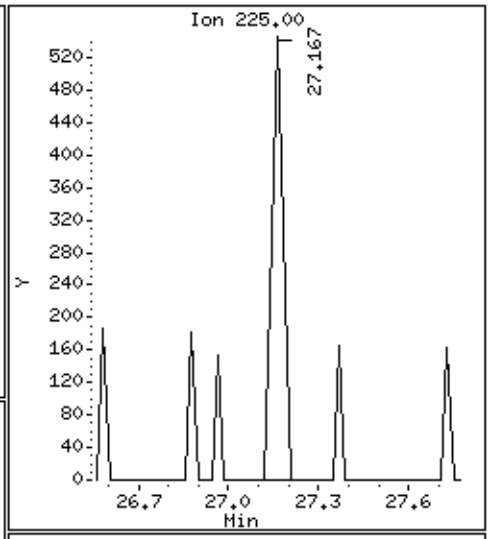
Concentration: 0.04338 PPBV

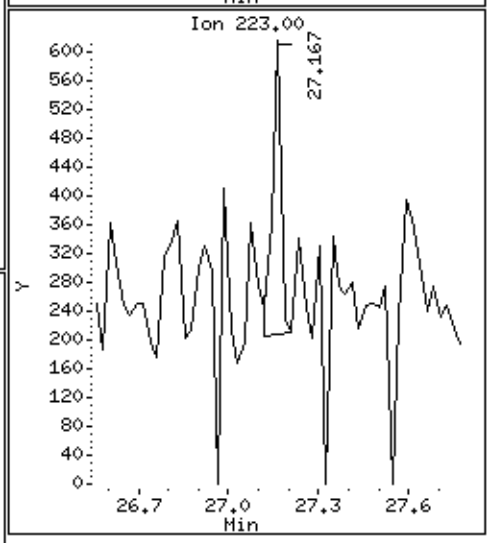


# LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1412151AR1

| | CLIENT SAMPLE NO. | SURROGATE % RECOVERY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,2-Dichloroethane-d4 | # | Toluene-d8 | # | 4-Bromofluorobenzene | # | | # | TOTAL OUT |
| 01 | BSIA-5 (2014) | 101 | | 105 | | 94 | | | | 0 |
| 02 | BSIA-3D (2014) | 105 | | 107 | | 95 | | | | 0 |
| 03 | BSIA-3 (2014) | 99 | | 110 | | 102 | | | | 0 |
| 04 | BSIA-11 (2014) | 112 | | 106 | | 97 | | | | 0 |
| 05 | BSIA-9 (2014) | 112 | | 104 | | 94 | | | | 0 |
| 06 | Lab Blank | 103 | | 103 | | 93 | | | | 0 |
| 07 | CCV | 99 | | 103 | | 96 | | | | 0 |
| 08 | LCS | 101 | | 107 | | 101 | | | | 0 |
| 09 | LCSD | 99 | | 106 | | 98 | | | | 0 |
| 10 | | | | | | | | | | 0 |
| 11 | | | | | | | | | | 0 |
| 12 | | | | | | | | | | 0 |
| 13 | | | | | | | | | | 0 |
| 14 | | | | | | | | | | 0 |
| 15 | | | | | | | | | | 0 |
| 16 | | | | | | | | | | 0 |
| 17 | | | | | | | | | | 0 |
| 18 | | | | | | | | | | 0 |
| 19 | | | | | | | | | | 0 |
| 20 | | | | | | | | | | 0 |
| 21 | | | | | | | | | | 0 |
| 22 | | | | | | | | | | 0 |
| 23 | | | | | | | | | | 0 |
| 24 | | | | | | | | | | 0 |

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

# LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

| | | | |
|---|---|---|---|
| Lab Name: | AIR TOXICS, LTD | SDG No: | 1412151AR1 |
| Lab File ID: | v121602.d | Date Analyzed: | 12/16/2014 |
| Instrument ID: | msdv.i | Time Analyzed: | 08:42 AM |

| | | Chlorobenzene-d5 Area | # | RT | # | 1,4-Difluorobenzene Area | # | RT | # | Bromochloromethane Area | # | RT | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-HOUR STD | 361081 | | 22.21 | | 445503 | | 17.3 | | 109722 | | 15.93 | |
| | UPPER LIMIT | 505513 | | 22.54 | | 623704 | | 17.63 | | 153611 | | 16.26 | |
| | LOWER LIMIT | 216649 | | 21.88 | | 267302 | | 16.97 | | 65833 | | 15.60 | |
| | CLIENT SAMPLE NO | | | | | | | | | | | | |
| 01 | BSIA-5 (2014) | 338964 | | 22.21 | | 424896 | | 17.3 | | 99199 | | 15.93 | |
| 02 | BSIA-3D (2014) | 339611 | | 22.21 | | 423209 | | 17.3 | | 96290 | | 15.93 | |
| 03 | BSIA-3 (2014) | 331072 | | 22.21 | | 417195 | | 17.3 | | 103588 | | 15.93 | |
| 04 | BSIA-11 (2014) | 336239 | | 22.21 | | 414182 | | 17.3 | | 90394 | | 15.93 | |
| 05 | BSIA-9 (2014) | 329278 | | 22.21 | | 417430 | | 17.3 | | 90136 | | 15.93 | |
| 06 | Lab Blank | 348367 | | 22.21 | | 426181 | | 17.3 | | 98254 | | 15.93 | |
| 07 | CCV | 361081 | | 22.21 | | 445503 | | 17.3 | | 109722 | | 15.93 | |
| 08 | LCS | 353604 | | 22.21 | | 440956 | | 17.3 | | 108561 | | 15.93 | |
| 09 | LCSD | 352217 | | 22.21 | | 437786 | | 17.3 | | 110022 | | 15.93 | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

# SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: v121604.d & v121603.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 12/16/14 & 12/16/14

| CAS Number | Compound | Original Amount | Original Flags | Duplicate Amount | Duplicate Flags | RPD | Result Less Than 5X RL |
|---|---|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 102 | | 102 | | 0 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 103 | | 101 | | 2.0 | |
| 79-00-5 | 1,1,2-Trichloroethane | 103 | | 103 | | 0 | |
| 75-34-3 | 1,1-Dichloroethane | 108 | | 107 | | 0.93 | |
| 75-35-4 | 1,1-Dichloroethene | 108 | | 109 | | 0.92 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 116 | | 117 | | 0.86 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 143 | | 142 | | 0.70 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 104 | | 103 | | 0.97 | |
| 95-50-1 | 1,2-Dichlorobenzene | 97 | | 96 | | 1.0 | |
| 107-06-2 | 1,2-Dichloroethane | 102 | | 102 | | 0 | |
| 78-87-5 | 1,2-Dichloropropane | 110 | | 110 | | 0 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 125 | | 126 | | 0.80 | |
| 106-99-0 | 1,3-Butadiene | 108 | | 113 | | 4.5 | |
| 541-73-1 | 1,3-Dichlorobenzene | 97 | | 95 | | 2.1 | |
| 106-46-7 | 1,4-Dichlorobenzene | 92 | | 89 | | 3.3 | |
| 123-91-1 | 1,4-Dioxane | 112 | | 112 | | 0 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 106 | | 102 | | 3.8 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 121 | | 111 | | 8.6 | |
| 591-78-6 | 2-Hexanone | 111 | | 110 | | 0.90 | |
| 67-63-0 | 2-Propanol | 124 | | 126 | | 1.6 | |
| 107-05-1 | 3-Chloropropene | 108 | | 107 | | 0.93 | |
| 622-96-8 | 4-Ethyltoluene | 103 | | 102 | | 0.98 | |
| 108-10-1 | 4-Methyl-2-pentanone | 118 | | 118 | | 0 | |
| 67-64-1 | Acetone | 110 | | 112 | | 1.8 | |
| 100-44-7 | alpha-Chlorotoluene | 167 | | 159 | | 4.9 | |
| 71-43-2 | Benzene | 108 | | 110 | | 1.8 | |
| 75-27-4 | Bromodichloromethane | 106 | | 105 | | 0.95 | |
| 75-25-2 | Bromoform | 95 | | 93 | | 2.1 | |
| 74-83-9 | Bromomethane | 115 | | 111 | | 3.5 | |
| 75-15-0 | Carbon Disulfide | 111 | | 110 | | 0.90 | |
| 56-23-5 | Carbon Tetrachloride | 77 | | 77 | | 0 | |
| 108-90-7 | Chlorobenzene | 99 | | 98 | | 1.0 | |
| 75-00-3 | Chloroethane | 117 | | 117 | | 0 | |
| 67-66-3 | Chloroform | 107 | | 105 | | 1.9 | |
| 74-87-3 | Chloromethane | 110 | | 107 | | 2.8 | |
| 156-59-2 | cis-1,2-Dichloroethene | 109 | | 109 | | 0 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 120 | | 122 | | 1.6 | |
| 98-82-8 | Cumene | 103 | | 104 | | 0.97 | |
| 110-82-7 | Cyclohexane | 108 | | 104 | | 3.8 | |
| 124-48-1 | Dibromochloromethane | 92 | | 95 | | 3.2 | |
| 64-17-5 | Ethanol | 149 | | 152 | | 2.0 | |
| 100-41-4 | Ethyl Benzene | 103 | | 102 | | 0.98 | |
| 75-69-4 | Freon 11 | 104 | | 104 | | 0 | |
| 76-13-1 | Freon 113 | 101 | | 102 | | 0.98 | |
| 76-14-2 | Freon 114 | 102 | | 100 | | 2.0 | |

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

# SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: v121604.d & v121603.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 12/16/14 & 12/16/14

| CAS Number | Compound | Original Amount | Original Flags | Duplicate Amount | Duplicate Flags | RPD | Result Less Than 5X RL |
|---|---|---|---|---|---|---|---|
| 75-71-8 | Freon 12 | 110 | | 108 | | 1.8 | |
| 142-82-5 | Heptane | 106 | | 107 | | 0.94 | |
| 87-68-3 | Hexachlorobutadiene | 88 | | 88 | | 0 | |
| 110-54-3 | Hexane | 107 | | 108 | | 0.93 | |
| 108-38-3 | m,p-Xylene | 100 | | 100 | | 0 | |
| 1634-04-4 | Methyl tert-butyl ether | 108 | | 110 | | 1.8 | |
| 75-09-2 | Methylene Chloride | 114 | | 114 | | 0 | |
| 91-20-3 | Naphthalene | 75 | | 75 | | 0 | |
| 95-47-6 | o-Xylene | 106 | | 104 | | 1.9 | |
| 103-65-1 | Propylbenzene | 106 | | 106 | | 0 | |
| 100-42-5 | Styrene | 110 | | 108 | | 1.8 | |
| 127-18-4 | Tetrachloroethene | 98 | | 97 | | 1.0 | |
| 109-99-9 | Tetrahydrofuran | 112 | | 111 | | 0.90 | |
| 108-88-3 | Toluene | 107 | | 109 | | 1.8 | |
| 156-60-5 | trans-1,2-Dichloroethene | 108 | | 106 | | 1.9 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 101 | | 101 | | 0 | |
| 79-01-6 | Trichloroethene | 99 | | 101 | | 2.0 | |
| 75-01-4 | Vinyl Chloride | 118 | | 115 | | 2.6 | |

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msdv.i/06Oct2014.b/v100618.d
Level 6: /chem/msdv.i/06Oct2014.b/v100607.d
Level 7: /chem1/msdv.i/22Oct2014.b/v102206.d
Level 8: /chem1/msdv.i/22Oct2014.b/v102212.d
Level 9: /chem1/msdv.i/22Oct2014.b/v102208.d
Level 10: /chem/msdv.i/06Oct2014.b/v100611.d
Level 11: /chem/msdv.i/06Oct2014.b/v100612.d
Level 12: /chem/msdv.i/06Oct2014.b/v100613.d
Level 13: /chem/msdv.i/03Nov2014.b/v110306.d
Level 15: /chem/msdv.i/06Oct2014.b/v100615.d
Level 16: /chem/msdv.i/03Nov2014.b/v110307.d

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 1 Freon134a | +++++ | +++++ | 1.08224 | 1.08904 | 0.98107 | +++++ | | |
| | +++++ | +++++ | 0.93909 | +++++ | 0.89464 | | 0.99721 | 8.659 |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 2 Freon 152A | +++++ | +++++ | 0.66260 | 0.63962 | 0.56056 | +++++ | | |
| | +++++ | +++++ | 0.62225 | +++++ | 0.56396 | | 0.60980 | 7.496 |
| 3 Propylene | +++++ | +++++ | 3.17955 | 3.05930 | 2.90779 | 2.79028 | | |
| | 2.58335 | 2.59253 | +++++ | 2.52316 | +++++ | | 2.80514 | 9.082 |
| 4 Dichlorodifluoromethane/Fr12 | +++++ | +++++ | 4.60448 | 4.49924 | 5.15160 | 4.93596 | | |
| | 4.57849 | 4.46510 | +++++ | 4.55605 | +++++ | | 4.68442 | 5.498 |
| 5 Freon 22 | +++++ | +++++ | 3.05830 | 2.72577 | 2.59150 | +++++ | | |
| | +++++ | +++++ | 2.76072 | +++++ | 2.59323 | | 2.74590 | 6.942 |

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 6 Freon 114 | +++++ | 3.69628 | 3.25331 | 3.14193 | 3.61847 | 3.43702 | | |
| | 3.24522 | 3.17521 | +++++ | 3.19565 | +++++ | | 3.34539 | 6.365 |
| 7 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 8 Chloromethane | +++++ | 3.86615 | 2.69651 | 2.61526 | 2.98643 | 2.82932 | | |
| | 2.58146 | 2.45447 | +++++ | 2.55437 | +++++ | | 2.82300 | 16.069 |
| 9 Butane | +++++ | +++++ | 0.47697 | 0.47874 | 0.49945 | 0.48583 | | |
| | 0.45942 | 0.46589 | +++++ | 0.44533 | +++++ | | 0.47309 | 3.774 |
| 10 Vinyl Chloride | +++++ | 2.17905 | 1.99486 | 2.01677 | 2.34998 | 2.23728 | | |
| | 2.05175 | 1.99393 | +++++ | 2.02851 | +++++ | | 2.10652 | 6.316 |
| 11 1,3-Butadiene | +++++ | 2.16827 | 2.02006 | 1.95819 | 2.22564 | 2.13188 | | |
| | 2.02628 | 2.02901 | +++++ | 1.96175 | +++++ | | 2.06513 | 4.767 |
| 12 Bromomethane | +++++ | 1.18308 | 1.09289 | 1.11958 | 1.47556 | 1.45446 | | |
| | 1.37255 | 1.27532 | +++++ | 1.35787 | +++++ | | 1.29142 | 11.427 |
| 13 Vinyl Bromide | +++++ | +++++ | 0.64715 | 0.61208 | 0.61144 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.62355 | 3.277 |
| 14 Fr21 | +++++ | +++++ | 3.37147 | 3.08370 | 2.84043 | +++++ | | |
| | +++++ | +++++ | 2.98888 | +++++ | 2.84979 | | 3.02685 | 7.192 |
| 15 1-Pentene | +++++ | +++++ | 0.50365 | 0.51740 | 0.47563 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.49889 | 4.268 |

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Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 16 Pentane | +++++ | +++++ | 5.96499 | 5.51729 | 5.45136 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 5.64455 | 4.951 |
| 17 Chloroethane | +++++ | +++++ | 0.88035 | 0.91079 | 1.10628 | 1.06718 | | |
| | 0.96622 | 0.95440 | +++++ | 0.96778 | +++++ | | 0.97900 | 8.262 |
| 18 Isopentane | +++++ | +++++ | 2.02488 | 1.85406 | 2.19900 | 2.10363 | | |
| | 2.01194 | 1.98015 | +++++ | 1.94321 | +++++ | | 2.01670 | 5.509 |
| 19 Diethyl Ether | +++++ | +++++ | 0.28470 | 0.25721 | 0.27774 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.27322 | 5.232 |
| 20 Trichlorofluoromethane/Fr11 | 4.84912 | 5.38511 | 4.55043 | 4.55049 | 5.26400 | 5.01636 | | |
| | 4.64312 | 4.54248 | +++++ | 4.59570 | +++++ | | 4.82187 | 6.799 |
| 21 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 22 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 23 Methyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 24 Ethanol | +++++ | +++++ | 0.76028 | 0.75375 | 1.15597 | 1.20391 | | |
| | 1.09488 | 1.08183 | +++++ | 1.10447 | +++++ | | 1.02216 | 18.180 |
| 25 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |

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| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 26 Acetonitrile | +++++ | +++++ | 1.76431 | 1.84087 | 2.64679 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 2.08399 | 23.460 |
| 27 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 28 Freon 113 | 3.36514 | 3.04998 | 2.77127 | 2.84493 | 3.03043 | 2.94341 | | |
| | 2.75182 | 2.66582 | +++++ | 2.69993 | +++++ | | 2.90253 | 7.647 |
| 29 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 30 1,1-Dichloroethene | +++++ | 1.11539 | 1.06387 | 0.98375 | 1.16881 | 1.14424 | | |
| | 1.05857 | 1.04492 | +++++ | 1.04064 | +++++ | | 1.07752 | 5.654 |
| 31 Acetone | +++++ | +++++ | 1.21654 | 1.13820 | 1.24363 | 1.23364 | | |
| | 1.15740 | 1.15446 | +++++ | 1.12555 | +++++ | | 1.18134 | 4.107 |
| 32 Acrylonitrile | +++++ | +++++ | 0.98787 | 1.07320 | 1.20748 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 1.08952 | 10.162 |
| 33 Carbon Disulfide | +++++ | +++++ | 4.43559 | 4.49993 | 4.88723 | 4.72901 | | |
| | 4.52957 | 4.56087 | +++++ | 4.43907 | +++++ | | 4.58304 | 3.636 |
| 34 2-Propanol | +++++ | +++++ | 4.45838 | 5.09024 | 5.86140 | 5.84275 | | |
| | 5.73136 | 5.80395 | +++++ | 5.50434 | +++++ | | 5.47035 | 9.559 |
| 35 3-Chloroprene | +++++ | 0.67001 | 0.55480 | 0.59214 | 0.68550 | 0.69813 | | |
| | 0.70369 | 0.70741 | +++++ | 0.67932 | +++++ | | 0.66137 | 8.551 |

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| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 36 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 37 Methylene Chloride | +++++ | 1.76385 | 1.50500 | 1.40892 | 1.56359 | 1.56260 | | |
| | 1.48337 | 1.43987 | +++++ | 1.43338 | +++++ | | 1.52007 | 7.501 |
| 38 tert-butyl alcohol | +++++ | +++++ | 4.92450 | 4.55290 | 4.49714 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 4.65818 | 4.987 |
| 39 MTBE | +++++ | 6.22499 | 5.05168 | 5.07121 | 5.73526 | 5.61336 | | |
| | 5.36415 | 5.26884 | +++++ | 5.29983 | +++++ | | 5.45367 | 7.180 |
| 40 trans-1,2-Dichloroethene | +++++ | 0.83558 | 0.99327 | 0.99286 | 1.12917 | 1.09642 | | |
| | 1.04217 | 1.03635 | +++++ | 1.03026 | +++++ | | 1.01951 | 8.622 |
| 41 1-Hexene | +++++ | +++++ | 0.43005 | 0.31586 | 0.35249 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.36614 | 15.924 |
| 42 Ethyl Acetate | +++++ | +++++ | 0.44490 | 0.43255 | 0.47709 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.45151 | 5.092 |
| 43 Hexane | +++++ | 4.97120 | 4.15919 | 4.18613 | 4.65121 | 4.52357 | | |
| | 4.22843 | 4.07076 | +++++ | 4.12066 | +++++ | | 4.36389 | 7.318 |
| 44 Methyl Acrylate | +++++ | +++++ | 2.45416 | 2.27732 | 3.04872 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 2.59340 | 15.582 |
| 45 Isopropyl ether | +++++ | +++++ | 10.86316 | 9.85741 | 9.58588 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 10.10215 | 6.661 |

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| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 46 1,1-Dichloroethane | +++++ | 4.72415 | 4.07562 | 3.97285 | 4.46250 | 4.35956 | | |
| | 4.13033 | 4.09107 | +++++ | 4.06231 | +++++ | | 4.23480 | 6.068 |
| 47 Vinyl Acetate | +++++ | +++++ | 0.32513 | 0.38550 | 0.47298 | 0.46814 | | |
| | 0.46265 | 0.46197 | +++++ | 0.44947 | +++++ | | 0.43226 | 12.919 |
| 48 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 49 Ethyl-tert-butyl ether | +++++ | +++++ | 8.12028 | 7.73416 | 7.51493 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 7.78979 | 3.934 |
| 50 cis-1,2-Dichloroethene | +++++ | 1.23267 | 1.34335 | 1.31083 | 1.45217 | 1.42860 | | |
| | 1.36518 | 1.33995 | +++++ | 1.35060 | +++++ | | 1.35292 | 5.015 |
| 51 2-Butanone | +++++ | +++++ | 0.64053 | 0.77902 | 0.97139 | 0.96131 | | |
| | 0.94241 | 0.94445 | +++++ | 0.91587 | +++++ | | 0.87928 | 14.070 |
| 52 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 53 Tetrahydrofuran | +++++ | +++++ | 4.45355 | 4.15524 | 4.75575 | 4.79945 | | |
| | 4.58047 | 4.52554 | +++++ | 4.44731 | +++++ | | 4.53104 | 4.761 |
| 55 Chloroform | +++++ | 4.74484 | 4.18364 | 4.11787 | 4.39042 | 4.26886 | | |
| | 4.02869 | 3.95521 | +++++ | 4.01940 | +++++ | | 4.21362 | 6.119 |
| 56 1,1-Dicholoropropene | +++++ | +++++ | 0.92334 | 0.96953 | 0.85544 | +++++ | | |
| | +++++ | +++++ | 0.86140 | +++++ | 0.86846 | | 0.89564 | 5.514 |

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| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 57 Cyclohexane | +++++ | 2.66755 | 2.79039 | 2.51700 | 2.84320 | 2.75148 | | |
| | 2.57314 | 2.52483 | +++++ | 2.53330 | +++++ | | 2.65011 | 4.951 |
| 58 1,1,1-Trichloroethane | 4.77997 | 4.94361 | 4.06115 | 4.16524 | 4.59806 | 4.49299 | | |
| | 4.24983 | 4.17566 | +++++ | 4.13282 | +++++ | | 4.39992 | 7.196 |
| 59 Carbon Tetrachloride | 4.60429 | 4.25936 | 3.81718 | 3.92872 | 4.59166 | 4.40298 | | |
| | 4.19370 | 4.08275 | +++++ | 4.10418 | +++++ | | 4.22054 | 6.494 |
| 60 Ethyl Acrylate | +++++ | +++++ | 0.09905 | 0.12934 | 0.19512 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.14117 | 34.792 <- |
| 61 2-Chloroethyl Vinyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 62 2-Pentanone | +++++ | +++++ | 6.55055 | 6.23731 | 6.57637 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 6.45474 | 2.924 |
| 63 2,2,4-Trimethylpentane | +++++ | 5.47651 | 4.41422 | 4.24309 | 4.78101 | 4.77358 | | |
| | 4.48949 | 4.35551 | +++++ | 4.41267 | +++++ | | 4.61826 | 8.574 |
| 64 Benzene | +++++ | 1.63330 | 1.45207 | 1.40283 | 1.56252 | 1.49650 | | |
| | 1.42344 | 1.41896 | +++++ | 1.41455 | +++++ | | 1.47552 | 5.634 |
| 66 tert-amyl methyl ether | +++++ | +++++ | 0.33717 | 0.30816 | 0.30503 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.31679 | 5.595 |
| 67 Methyl Methacrylate | +++++ | +++++ | 2.71079 | 2.63287 | 2.84358 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 2.72908 | 3.904 |

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|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 68 1,2-Dichloroethane | +++++ | 0.93098 | 0.82303 | 0.86923 | 0.95321 | 0.92910 | | |
| | 0.88274 | 0.88532 | +++++ | 0.87997 | +++++ | | 0.89420 | 4.660 |
| 69 Heptane | +++++ | 0.61702 | 0.60501 | 0.58504 | 0.68083 | 0.68036 | | |
| | 0.64345 | 0.63577 | +++++ | 0.64002 | +++++ | | 0.63594 | 5.305 |
| 70 Dibromomethane | +++++ | +++++ | 0.28053 | 0.34150 | 0.35425 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.32543 | 12.107 |
| 72 Trichloroethene | 0.58735 | 0.65038 | 0.66022 | 0.65482 | 0.71189 | 0.70866 | | |
| | 0.67330 | 0.67011 | +++++ | 0.66122 | +++++ | | 0.66422 | 5.475 |
| 73 Methylcyclohexane | +++++ | +++++ | 0.77878 | 0.81756 | 0.94389 | 0.92666 | | |
| | 0.87442 | 0.87707 | +++++ | 0.88737 | +++++ | | 0.87225 | 6.632 |
| 74 1,2-Dichloropropane | +++++ | 0.65722 | 0.64148 | 0.63917 | 0.72697 | 0.70590 | | |
| | 0.68290 | 0.68991 | +++++ | 0.67132 | +++++ | | 0.67686 | 4.553 |
| 75 1,4-Dioxane | +++++ | 0.32478 | 0.30030 | 0.30936 | 0.37008 | 0.36120 | | |
| | 0.34828 | 0.35558 | +++++ | 0.35173 | +++++ | | 0.34017 | 7.495 |
| 76 Octane | +++++ | +++++ | 0.43998 | 0.42737 | 0.38547 | +++++ | | |
| | +++++ | +++++ | 0.43878 | +++++ | 0.36826 | | 0.41197 | 8.008 |
| 77 Bromodichloromethane | 1.03027 | 1.14781 | 0.99876 | 1.03824 | 1.21850 | 1.19396 | | |
| | 1.14712 | 1.17049 | +++++ | 1.14000 | +++++ | | 1.12057 | 6.989 |
| 78 cis-1,3-Dichloropropene | +++++ | 0.65518 | 0.68346 | 0.71999 | 0.83248 | 0.81698 | | |
| | 0.79981 | 0.82994 | +++++ | 0.78898 | +++++ | | 0.76585 | 9.099 |

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| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 79 4-Methyl-2-pentanone | +++++ | 1.71432 | 1.74052 | 1.82511 | 2.24768 | 2.28350 | | |
| | 2.28154 | 2.32278 | +++++ | 2.24617 | +++++ | | 2.08270 | 12.968 |
| 81 Toluene | +++++ | 1.63453 | 1.52256 | 1.60291 | 1.75777 | 1.70207 | | |
| | 1.61280 | 1.57872 | +++++ | 1.61839 | +++++ | | 1.62872 | 4.456 |
| 82 trans-1,3-Dichloropropene | +++++ | 0.93518 | 0.95855 | 0.91817 | 1.12303 | 1.07403 | | |
| | 1.07321 | 1.11444 | +++++ | 1.04855 | +++++ | | 1.03064 | 7.911 |
| 83 1,3-Dichloropropane | +++++ | +++++ | 0.73847 | 0.70375 | 0.64642 | +++++ | | |
| | +++++ | +++++ | 0.62866 | +++++ | 0.64054 | | 0.67157 | 7.043 |
| 84 1,1,2-Trichloroethane | 0.65135 | 0.90797 | 0.74605 | 0.75189 | 0.88306 | 0.79149 | | |
| | 0.78091 | 0.79904 | +++++ | 0.77157 | +++++ | | 0.78704 | 9.594 |
| 85 Nonane | +++++ | +++++ | 1.16160 | 1.06290 | 1.02841 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 1.08430 | 6.375 |
| 86 Tetrachloroethene | 1.04447 | 1.03929 | 0.98820 | 0.96368 | 1.11381 | 1.04364 | | |
| | 0.98245 | 0.98831 | +++++ | 0.99410 | +++++ | | 1.01755 | 4.602 |
| 87 2-Hexanone | +++++ | +++++ | 0.65837 | 0.77548 | 0.93676 | 0.93898 | | |
| | 0.95940 | 0.98618 | +++++ | 0.91407 | +++++ | | 0.88132 | 13.542 |
| 88 alpha-pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 89 Dibromochloromethane | 1.54814 | 1.43032 | 1.27858 | 1.35088 | 1.57654 | 1.49735 | | |
| | 1.47648 | 1.55428 | +++++ | 1.47089 | +++++ | | 1.46483 | 6.720 |

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| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 90 1,2-Dibromoethane | 1.31082 | 1.18046 | 1.08687 | 1.08317 | 1.34025 | 1.25205 | | |
| | 1.25111 | 1.29554 | +++++ | 1.23440 | +++++ | | 1.22607 | 7.536 |
| 91 1,1,1,2-Tetrachloroethane | +++++ | +++++ | 0.90086 | 0.81496 | 0.76579 | +++++ | | |
| | +++++ | +++++ | 0.70896 | +++++ | 0.70243 | | 0.77860 | 10.569 |
| 93 Chlorobenzene | +++++ | 1.70225 | 1.60485 | 1.59330 | 1.78105 | 1.67336 | | |
| | 1.60475 | 1.56580 | +++++ | 1.61030 | +++++ | | 1.64196 | 4.361 |
| 94 cis-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 95 Ethyl Benzene | +++++ | 0.72321 | 0.66958 | 0.66051 | 0.78575 | 0.79178 | | |
| | 0.76704 | 0.74118 | +++++ | 0.75673 | +++++ | | 0.73697 | 6.740 |
| 96 m,p-Xylene | +++++ | 0.84634 | 0.63016 | 0.64742 | 0.76756 | 0.76410 | | |
| | 0.73752 | 0.68401 | +++++ | 0.73648 | +++++ | | 0.72670 | 9.733 |
| 97 Bromobenzene | +++++ | +++++ | 0.65351 | 0.63323 | 0.59573 | +++++ | | |
| | +++++ | +++++ | 0.58776 | +++++ | 0.58925 | | 0.61190 | 4.864 |
| 98 trans-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 99 Decane | +++++ | +++++ | 1.70104 | 1.48211 | 1.32741 | +++++ | | |
| | +++++ | +++++ | 1.41722 | +++++ | 1.17815 | | 1.42119 | 13.622 |
| 100 o-Xylene | +++++ | 0.64090 | 0.59105 | 0.59829 | 0.74076 | 0.73421 | | |
| | 0.72601 | 0.67270 | +++++ | 0.70578 | +++++ | | 0.67621 | 8.920 |

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | | |
| 101 Styrene | +++++ | 0.83829 | 0.85240 | 0.84515 | 1.08271 | 1.09189 | | | |
| | 1.11638 | 1.03922 | +++++ | 1.04820 | +++++ | | 0.98928 | 12.302 | |
| 102 Bromoform | 1.30414 | 1.17838 | 1.02106 | 1.06107 | 1.33449 | 1.30223 | | | |
| | 1.30851 | 1.38145 | +++++ | 1.28254 | +++++ | | 1.24154 | 10.155 | |
| 103 Cumene | +++++ | 2.02735 | 1.65922 | 1.75706 | 2.05642 | 2.11278 | | | |
| | 2.10965 | 2.03192 | +++++ | 2.04291 | +++++ | | 1.97466 | 8.593 | |
| 104 Bis(2-Chloroethyl) Ether | +++++ | +++++ | 0.94788 | 0.52291 | 0.65340 | +++++ | | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.70806 | 30.745 | <- |
| 105 1,2,3-Trichloropropane | +++++ | +++++ | 0.40724 | 0.35800 | 0.32669 | +++++ | | | |
| | +++++ | +++++ | 0.31408 | +++++ | 0.31293 | | 0.34379 | 11.595 | |
| 107 2-Chlorotoluene | +++++ | +++++ | 0.36172 | 0.35232 | 0.32351 | +++++ | | | |
| | +++++ | +++++ | 0.33610 | +++++ | 0.32928 | | 0.34059 | 4.697 | |
| 108 1,1,2,2-Tetrachloroethane | 1.69582 | 1.55678 | 1.44463 | 1.47318 | 1.55963 | 1.49801 | | | |
| | 1.47010 | 1.49661 | +++++ | 1.45728 | +++++ | | 1.51689 | 5.163 | |
| 109 4-Chlorotoluene | +++++ | +++++ | 0.38188 | 0.28588 | 0.27637 | +++++ | | | |
| | +++++ | +++++ | 0.28628 | +++++ | 0.27733 | | 0.30155 | 14.971 | |
| 110 Undecane | +++++ | +++++ | 2.00565 | 2.10756 | 2.10149 | +++++ | | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 2.07157 | 2.760 | |
| 111 Propylbenzene | +++++ | 2.04248 | 1.44823 | 1.41063 | 1.75630 | 1.82353 | | | |
| | 1.89877 | 1.84522 | +++++ | 1.78721 | +++++ | | 1.75155 | 12.392 | |

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 113 4-Ethyltoluene | +++++ | 1.70087 | 1.20436 | 0.98287 | 1.24136 | 1.29857 | | |
| | 1.30811 | 1.26070 | +++++ | 1.28299 | +++++ | | 1.28498 | 15.395 |
| 114 1,3,5-Trimethylbenzene | +++++ | 1.27818 | 0.83041 | 1.00174 | 1.15785 | 1.18470 | | |
| | 1.12174 | 0.89078 | +++++ | 1.11771 | +++++ | | 1.07289 | 14.235 |
| 115 tert-Butylbenzene | +++++ | +++++ | 0.91986 | 0.77370 | 0.74122 | +++++ | | |
| | +++++ | +++++ | 0.76796 | +++++ | 0.74037 | | 0.78862 | 9.499 |
| 116 p-Cymene | +++++ | +++++ | 1.34048 | 0.99761 | 0.78694 | +++++ | | |
| | +++++ | +++++ | 0.93538 | +++++ | 0.86769 | | 0.98562 | 21.641 |
| 117 Indene | +++++ | +++++ | 0.82148 | 0.71264 | 0.62030 | +++++ | | |
| | +++++ | +++++ | 0.60919 | +++++ | 0.50781 | | 0.65428 | 18.084 |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 119 sec-Butylbenzene | +++++ | +++++ | 1.23666 | 0.97839 | 0.97257 | +++++ | | |
| | +++++ | +++++ | 1.02710 | +++++ | 0.99634 | | 1.04221 | 10.627 |
| 120 1,2,4-Trimethylbenzene | +++++ | 1.34551 | 0.83545 | 0.73183 | 0.86870 | 0.85241 | | |
| | 0.80986 | 0.67925 | +++++ | 0.82864 | +++++ | | 0.86896 | 23.359 |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | 0.48415 | 0.40889 | 0.33230 | +++++ | | |
| | +++++ | +++++ | 0.37156 | +++++ | 0.28330 | | 0.37604 | 20.297 |

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 122 1,3-Dichlorobenzene | 1.01140 | 0.89145 | 0.65991 | 0.71105 | 0.85997 | 0.87141 | | |
| | 0.88038 | 0.80361 | +++++ | 0.85695 | +++++ | | 0.83846 | 12.344 |
| 123 Butylbenzene | +++++ | +++++ | 0.43057 | 0.34605 | 0.21948 | +++++ | | |
| | +++++ | +++++ | 0.29148 | +++++ | 0.24460 | | 0.30644 | 27.587 |
| 124 1,4-Dichlorobenzene | 1.00966 | 0.89687 | 0.71613 | 0.63572 | 0.75510 | 0.80052 | | |
| | 0.78998 | 0.72460 | +++++ | 0.76554 | +++++ | | 0.78823 | 13.833 |
| 125 Dodecane | +++++ | +++++ | 0.33996 | 0.39554 | 0.43876 | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | 0.39142 | 12.653 |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 127 alpha-chlorotoluene | +++++ | +++++ | 0.72677 | 0.68059 | 0.85537 | 0.91741 | | |
| | 0.93629 | 0.89065 | +++++ | 0.88808 | +++++ | | 0.84217 | 11.733 |
| 128 1,2-Dichlorobenzene | 0.97281 | 0.79109 | 0.64633 | 0.66394 | 0.79226 | 0.81006 | | |
| | 0.81388 | 0.72784 | +++++ | 0.78331 | +++++ | | 0.77795 | 12.324 |
| 129 1,2-dibromo-3-chloropropane | +++++ | +++++ | 0.43774 | 0.43657 | 0.47018 | +++++ | | |
| | +++++ | +++++ | 0.42555 | +++++ | 0.41961 | | 0.43793 | 4.467 |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 131 1,2,4-Trichlorobenzene | 0.89593 | 0.86966 | 0.56824 | 0.49903 | 0.53994 | 0.52248 | | |
| | 0.46318 | 0.30193 | +++++ | 0.47776 | +++++ | | 0.57091 | 33.693 <- |

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 132 Hexachlorobutadiene | 0.68964 | 0.57746 | 0.40211 | 0.36397 | 0.41065 | 0.46379 | | |
| | 0.46291 | 0.49627 | +++++ | 0.43050 | +++++ | | 0.47748 | 21.074 |
| 133 Naphthalene | +++++ | +++++ | 1.57402 | 1.69204 | 1.40942 | 1.47308 | | |
| | 1.24913 | 0.79518 | +++++ | 1.27142 | +++++ | | 1.35204 | 21.564 |
| 204 Butyl Acetate | +++++ | +++++ | 0.28113 | 0.27933 | 0.30914 | +++++ | | |
| | +++++ | +++++ | 0.32626 | +++++ | 0.31647 | | 0.30247 | 7.008 |
| 205 2-Heptanone | +++++ | +++++ | 0.81430 | 0.69640 | 0.67727 | +++++ | | |
| | +++++ | +++++ | 0.65810 | +++++ | 0.70327 | | 0.70987 | 8.590 |
| 206 1-Butanol | +++++ | +++++ | 0.40036 | 0.49148 | 0.63850 | +++++ | | |
| | +++++ | +++++ | 0.61764 | +++++ | 0.67210 | | 0.56402 | 20.244 |
| 207 1-Methoxy-2-Propyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| $ 65 1,2-Dichloroethane-d4 | 1.85518 | 1.73176 | 1.78274 | 1.74767 | 1.74462 | 1.84429 | | |
| | 1.88329 | 2.12737 | +++++ | 1.79816 | +++++ | | 1.83501 | 6.642 |
| $ 80 Toluene-d8 | 0.92958 | 0.93721 | 0.96064 | 0.95781 | 0.97667 | 0.99305 | | |
| | 0.97042 | 0.97030 | +++++ | 0.95615 | +++++ | | 0.96131 | 2.026 |
| $ 106 Bromofluorobenzene | 0.40220 | 0.43236 | 0.40233 | 0.39731 | 0.43870 | 0.44177 | | |
| | 0.46939 | 0.43233 | +++++ | 0.45357 | +++++ | | 0.43000 | 5.778 |

Calibration History

Method : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Start Cal Date: 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 5 , Cal Amount: 0.05000 | | |
| 07-OCT-2014 10:14 | Level05 | /chem/msdv.i/06Oct2014.b/v100618.d |

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 6 , Cal Amount: 0.10000 | | |
| 06-OCT-2014 15:09 | Level#1 | /chem/msdv.i/06Oct2014.b/v100607.d |

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 7 , Cal Amount: 0.50000 | | |
| 22-OCT-2014 14:20 | Combo-AT7-AT1 | /chem1/msdv.i/22Oct2014.b/v102206.d |
| 17-OCT-2014 15:22 | AT1crv | /chem/msdv.i/17Oct2014.b/v101709.d |
| 17-OCT-2014 12:42 | Oxy | /chem/msdv.i/17Oct2014.b/v101706.d |
| 07-OCT-2014 18:39 | AT7crv | /chem/msdv.i/07Oct2014.b/v100709.d |
| 06-OCT-2014 15:47 | HiLoFULLcrv | /chem/msdv.i/06Oct2014.b/v100608.d |

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 8 , Cal Amount: 1.00000 | | |
| 22-OCT-2014 19:15 | Combo-AT7-AT1 | /chem1/msdv.i/22Oct2014.b/v102212.d |
| 17-OCT-2014 16:02 | AT1crv | /chem/msdv.i/17Oct2014.b/v101710.d |
| 17-OCT-2014 13:40 | Oxy | /chem/msdv.i/17Oct2014.b/v101707.d |
| 07-OCT-2014 19:25 | AT7crv | /chem/msdv.i/07Oct2014.b/v100710.d |
| 06-OCT-2014 16:43 | HiLoFULLcrv | /chem/msdv.i/06Oct2014.b/v100609.d |

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 9 , Cal Amount: 5.00000 | | |
| 22-OCT-2014 15:31 | Combo-AT7-AT1 | /chem1/msdv.i/22Oct2014.b/v102208.d |
| 17-OCT-2014 17:06 | AT1crv | /chem/msdv.i/17Oct2014.b/v101711.d |
| 17-OCT-2014 14:29 | Oxy | /chem/msdv.i/17Oct2014.b/v101708.d |
| 07-OCT-2014 21:35 | AT7crv | /chem/msdv.i/07Oct2014.b/v100713.d |
| 06-OCT-2014 17:52 | HiLoFULLcrv | /chem/msdv.i/06Oct2014.b/v100610.d |

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 10, Cal Amount: 10.00000 | | |

```
|06-OCT-2014 18:36 |AT12             |/chem/msdv.i/06Oct2014.b/v100611.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 11, Cal Amount: 20.00000                                         |
+===========================================================================+
|06-OCT-2014 19:24 |HiLoFULLcrv      |/chem/msdv.i/06Oct2014.b/v100612.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 12, Cal Amount: 40.00000                                         |
+===========================================================================+
|06-OCT-2014 20:51 |HiLoFULLcrv      |/chem/msdv.i/06Oct2014.b/v100613.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 13, Cal Amount: 2.00000                                          |
+===========================================================================+
|03-NOV-2014 10:22 |AT1crv           |/chem/msdv.i/03Nov2014.b/v110306.d      |
|07-OCT-2014 20:02 |AT7crv           |/chem/msdv.i/07Oct2014.b/v100711.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 15, Cal Amount: 15.00000                                         |
+===========================================================================+
|06-OCT-2014 22:22 |HiLoFULLcrv      |/chem/msdv.i/06Oct2014.b/v100615.d      |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 16, Cal Amount: 4.00000                                          |
+===========================================================================+
|03-NOV-2014 11:17 |AT1crv           |/chem/msdv.i/03Nov2014.b/v110307.d      |
|07-OCT-2014 20:41 |AT7crv           |/chem/msdv.i/07Oct2014.b/v100712.d      |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 10
+------------------+-----------------+----------------------------------------+
| Ccal Level: 10, Ccal Amount: 10.000                                         |
+===========================================================================+
|03-NOV-2014 07:40 |CNTRL122414      |/chem/msdv.i/03Nov2014.b/v110303.d      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 13, Ccal Amount: 2.000                                          |
+===========================================================================+
|03-NOV-2014 10:22 |AT1CCV           |/chem/msdv.i/03Nov2014.b/v110306a.d     |
+------------------+-----------------+----------------------------------------+
```

# Curve Name: $V14_L1006D$

## Initial Calibration Narrative

An initial calibration curve was analyzed on 10/06/14 on MSD-V.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

**ICAL: One (1) out;** 1,2,4-Trichlorobenzene @ 34%.

**ICV: One (1) out;** alpha-Chlorotoluene @ 160%.
**Zero (0)** out AFCEE 4.0.
File #V100619. Standard 2677-275; 10ppbv (50ppbv); 50mL load.

Naphthalene was calibrated at 0.05ppbv, 0.1ppbv, 0.5ppbv, 1.0ppbv, 1.5ppbv, 2.0ppbv, and 4.0ppbv.

**The reporting limit for Freon 12 and alpha-Chlorotoluene was raised to 0.5ppbv due to poor peak quality of the secondary ion at the 0.1ppbv level.**

The following compounds were calibrated down to a special RL of 0.05ppbv:

Freon 11
Freon 113
1,1,1,-Trichloroethane
Carbon Tetrachloride
Trichloroethene
Bromodichloromethane
1,1,2-Trichloroethane
Tetrachloroethane
Dibromochloromethane
1,2-Dibromoethane
Bromoform
1,1,2,2-Tetrachloroethane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene

**A five (5) point initial calibration for the AT-7 specials was analyzed on 10/7/14 at levels 05ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv.** Zero (0) out.
**ICV:** Zero (0) OUT. File# v100715. Standard 2677-190; 1.0ppbv (5.0ppbv); 50mL load.

**A three (3) point initial calibration for the AT-1 specials was analyzed on 10/17/14 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.**

**A three (3) point initial calibration for the Oxygenate specials was analyzed on 10/17/14 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.** The calibration points from the initial ICAL run on 10/6/14 were disabled and/or overwritten.

**A three (3) point initial calibration for the Combination specials was analyzed on 10/22/14 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.** The 1.0ppbv point was re-run due to a load error (wrong load volume). AT-1 and AT-7 compounds that were already calibrated were left out of this ICAL.

**Two (2) additional AT-1 points were added to the ICAL on 11/3/14.** Levels 2.0ppbv and 4.0ppbv.

MDL 2/14, 2/18, & 2/19/2014
AT1 MDL: 03/18/2014
Special RL MDL for Hexabutadiene and 1, 2, 4 Trichlorobenzene on 8/19/14

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2014 15:09
End Cal Date : 03-NOV-2014 11:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdv.i/03Nov2014.b/v1411006d.m
Cal Date : 04-Nov-2014 09:22 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msdv.i/06Oct2014.b/v100618.d
Level 6: /chem/msdv.i/06Oct2014.b/v100607.d
Level 7: /chem1/msdv.i/22Oct2014.b/v102206.d
Level 8: /chem1/msdv.i/22Oct2014.b/v102212.d
Level 9: /chem1/msdv.i/22Oct2014.b/v102208.d
Level 10: /chem/msdv.i/06Oct2014.b/v100611.d
Level 11: /chem/msdv.i/06Oct2014.b/v100612.d
Level 12: /chem/msdv.i/06Oct2014.b/v100613.d
Level 13: /chem/msdv.i/03Nov2014.b/v110306.d
Level 15: /chem/msdv.i/06Oct2014.b/v100615.d
Level 16: /chem/msdv.i/03Nov2014.b/v110307.d

EF 11/4/14

Please see Calibration History page(s) for all the calibration files.

| Compound | 0.05000 Level 5 | 0.10000 Level 6 | 0.50000 Level 7 | 1.000 Level 8 | 5.000 Level 9 | 10.000 Level 10 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 11 | 40.000 Level 12 | 2.000 Level 13 | 15.000 Level 15 | 4.000 Level 16 | | | |
| 1 Freon134a | +++++ | +++++ | 1.08224 | 1.08904 | 0.98107 | +++++ | | |
| | +++++ | +++++ | 0.93909 | +++++ | 0.89464 | | 0.99721 | 8.659 |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | +++++ | +++++ | +++++ | +++++ | | +++++ | +++++ |
| 2 Freon 152A | +++++ | +++++ | 0.66260 | 0.63962 | 0.56056 | +++++ | | |
| | +++++ | +++++ | 0.62225 | +++++ | 0.56396 | | 0.60980 | 7.496 |
| 3 Propylene | +++++ | +++++ | 3.17955 | 3.05930 | 2.90779 | 2.79028 | | |
| | 2.58335 | 2.59253 | +++++ | 2.52316 | +++++ | | 2.80514 | 9.082 |
| 4 Dichlorodifluoromethane/Fr12 | +++++ | +++++ | 4.60448 | 4.49924 | 5.15160 | 4.93596 | | |
| | 4.57849 | 4.46510 | +++++ | 4.55605 | +++++ | | 4.68442 | 5.498 |
| 5 Freon 22 | +++++ | +++++ | 3.05830 | 2.72577 | 2.59150 | +++++ | | |
| | +++++ | +++++ | 2.76072 | +++++ | 2.59323 | | 2.74590 | 6.942 |

Eurofins Air Toxics, Inc.

# MSD-V

Logbook #2684

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: | (303064 / 316380) x 100 = 95.8% |
| Tekmar Purge Flow: | N/A |
| Vacuum: | N/A |

| | | | |
|---|---|---|---|
| IS/S Std. #: | 2677-225 | Exp. Date: | 12/23/14 |
| BCM | 125097 | | 134890 |
| 1,4-DFB | 498199 | | 158527 |
| CB-d5 | 406420 | | 426719 |

Verified CCV IS vs ICAL mid-point (-40%D): ok

| | |
|---|---|
| File ID: | V100601 |
| Compound: | Toluene-d8 |
| Initials: | ok |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 494735 ) x ( 5.000 ) = 5.165
( 498199 ) ( 0.96181 )

SOP# (Circle one): 6 / 83 / 38 / 91 / 109

Method Name: V14100601A / V14S10061A

Method (Circle one): TO-14A/TO-15/TO-17

Reported Result: 5.165

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By-Initials | Date Analyzed | Time Analyzed | Reviewed By-Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | / | V100601 | BFB Tune check | 2677-788 | 50ng | 2mL | 1.00 | ok | 10/6/14 | 1134 | ok | |
| 2 | / | 02 | ICAL Level 1 | 2677-277 | 0.005ppbv | 15mL | 1.00 | ok | | 1157 | ok | Exp. 12/4/14; exp. 2/20 expired |
| 3 | / | 03 | 2 | | 0.005ppbv | 25mL | 1.00 | ok | | 1235 | ok | |
| 4 | / | 04 | 3 | | 0.01ppbv | 50mL | 1.00 | ok | | 1317 | ok | |
| 5 | / | 05 | 4 | | 0.02ppbv | 100mL | 1.00 | ok | | 1357 | ok | |
| 6 | X | 06 | 5 | | 0.05ppbv | 250mL | 1.00 | ok | | 1431 | ok | |
| 7 | / | 07 | 6 | 2677-278 | 0.1ppbv | 25mL | 1.00 | ok | | 1507 | ok | |
| 8 | / | 08 | 7 | | 0.5ppbv | 125mL | 1.00 | ok | | 1547 | ok | |
| 9 | / | 09 | 8 | | 1.0ppbv | 250mL | 1.00 | ok | | 1643 | ok | |
| 10 | / | 10 | 9 | 2677-212 | 5.0ppbv | 25mL | 1.00 | gd | | 1752 | ok | |
| 11 | / | 11 | 10 | | 10ppbv | 50mL | 1.00 | gd | | 1836 | ok | |
| 12 | / | 12 | 11 | | 20ppbv | 100mL | 1.00 | gd | | 1924 | ok | |
| 13 | / | 13 | 12 | | 40ppbv | 200mL | 1.00 | gd | | 2051 | ok | |
| 14 | / | 14 | System Blank | 34078 | Humid | 250mL | 1.00 | gd | | 2138 | ok | |

Reviewed

10/7/14
Date

Eurofins Air Toxics, Inc. MSD-V Logbook #2684

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By/Initials | Date Analyzed | Time Analyzed | Reviewed By/Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | / | V100615 | ICAL Level 15 | 2677-212 | 15 ppbv | 75mL | 1.00 | gd | 10/6/14 | 2222 | [illegible] | Exp. 12/4/14 · No [illegible] |
| 16 | / | 16 | System Blank | 34008 | Humid. | 250mL | 1 | gd | 1 | 2302 | [illegible] | |
| 17 | / | 17 | System Blank | 35248 | Humid | 250mL | 1.00 | AG | 10/7/14 | 0921 | [illegible] | |
| 18 | / | 18 | ICAL Level 5 | 2677-277 | 0.05 ppbv | 250mL | 1.00 | [illegible] | 1 | 1014 | [illegible] | Exp. 12/4/14 · No [illegible] |
| 19 | / | 19 | ICV (50 ppbv) | 2677-275 | 10 ppbv | 50mL | 1.00 | [illegible] | 1 | 1127 | [illegible] | Exp. 11/5/14. |
| 20 | | | | | | | | | | | | |
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| 34 | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | [illegible] 10/7/14 |

[illegible] Reviewed

10/7/14 Date

**Eurofins Air Toxics, Inc.** **MSD-V** **Logbook #2684**

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: | (296246/305706)*100 = 96.90 |
| Tekmar Purge Flow: | |
| Vacuum: | 10/7/14 |

| | | |
|---|---|---|
| IS/S Std. #: 2677-226 | | Exp. Date: 12/23/14 |
| BCM | LL: 122750 | Sm: 132863 |
| 1,4-DFB | 498533 | 522839 |
| CB-d5 | 397978 | 418787 |

Verified CCV IS vs ICAL mid-point (-40%D): EF

| | |
|---|---|
| File ID: | V100702 |
| Compound: | Toluene-d8 |
| Initials: | EF |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 483490 ) x ( 5.000 ) / ( 498533 ) ( 0.96131 ) = 5.096

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.096

Method Name: ~~V14L1007A/V14S1007A~~ EF 10/7/14

| | Use | File | Lab ID# (V14L1006A/V14S1006A) | Can# | Pressure | Amt. Loaded | DF | Loaded By Initials | Date Analyzed | Time Analyzed | Reviewed By Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | V100701 | BFB Tune check | 2299-788 | 50psig | 2mL | 1.00 | EF | 10/7/14 | 1207 | EF | |
| 2 | ✓ | 02 | CCV (50ppbv) | 2677-212 | 10ppbv | 50mL | 1.00 | EF | | 1229 | EF | exp. 12/4/14. LL: 1 ppbv Sm: ∅ ppbv |
| 3 | ✓ | 03 | LCS (50ppbv) | 2677-275 | 10ppbv | 50mL | 1.00 | EF | | 1333 | EF | exp. 11/5/14 Sm: ∅ ppbv |
| 4 | ✓ | 04 | LCSD (50ppbv) | 2677-275 | 10ppbv | 50mL | 1.00 | EF | | 1414 | GH | |
| 5 | ✓ | 05 | DOC #1 | 2677-275 | 10ppbv | 50mL | 1.00 | GH | | 1602 | GH | |
| 6 | ✓ | 06 | DOC #2 | ↓ | 10ppbv | 50mL | 1.00 | GH | | 1638 | GH | |
| 7 | ✓ | 07 | DOC #3 | | 10ppbv | 50mL | 1.00 | GH | | 1714 | GH | |
| 8 | ✓ | 08 | DOC #4 | ↓ | 10ppbv | 50mL | 1.00 | GH | | 1750 | GH | |
| 9 | ✓ | 09 | ICAL level 7 | 2677-286 | 0.5ppbv | 25mL | 1.00 | gd | | 1839 | gd/EF | |
| 10 | ✓ | 10 | 8 | | 1.0ppbv | 50mL | 1.00 | gd | | 1925 | gd/EF | CCV AT-7 |
| 11 | ✓ | 11 | 13 | | 2.0ppbv | 100mL | 1.00 | gd | | 2002 | gd/EF | |
| 12 | ✓ | 12 | 16 | | 4.0ppbv | 200mL | 1.00 | gd | | 2041 | gd/EF | |
| 13 | ✓ | 13 | 9 | ↓ | 5.0ppbv | 250mL | 1.00 | gd | | 2135 | gd/EF | |
| 14 | ✓ | 14 | System Blank | 34008 | Humid | 250mL | 1.00 | gd | ↓ | 2223 | EF | |

LL — Reviewed

10/8/14 — Date

Eurofins Air Toxics, Inc.

# MSD-V

Logbook #2684

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By/Initials | Date Analyzed | Time Analyzed | Reviewed By/Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | | V100715 | ICV (50 ppbv) | 2677-190 | 1.0 ppbv | 50 mL | 1.00 | ACT | 10/8/14 | 6:48 | [illegible] | NT-7 |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
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| 34 | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | [illegible] 10/8/14 |

[illegible] Reviewed

10/8/14 Date

**Eurofins Air Toxics, Inc.** **MSD-V** **Logbook #2684**

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: (3573621/3484453) x100 = 96.62 | |
| Tekmar Purge Flow: | |
| Vacuum: | 10/17/14 |

| | | |
|---|---|---|
| IS/S Std. #: 2677-225 | | Exp. Date: 12/23/14 |
| BCM | LL: 1127116 | Sm: 1116591 |
| 1,4-DFB | 459383 | 480411 |
| CB-d5 | 369877 | 391769 |

Verified CCV IS vs ICAL mid-point (-40%D): 

| | |
|---|---|
| File ID: | V101702 |
| Compound: | Toluene-d8 |
| Initials: | |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 432134 ) x ( 5.000 ) = 4.893
( 459383 ) ( 0.96131 )

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A / TO-15 / TO-17 Reported Result: 4.893

Method Name: V14L100GB / V14S100GA

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By Initials | Date Analyzed | Time Analyzed | Reviewed By Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | V101701 | BFB Tune check | 2677-783 | 50mg | 2µL | 1.00 | | 10/17/14 | 0924 | | |
| 2 | ✓ | 02 | CCV (50 ppbv) | 2677-213 | 10 ppbv | 50mL | 1.00 | | | 0945 | | Exp. 12/4/14 LL: 1 out |
| 3 | ✓ | 03 | LCS (50 ppbv) | 2677-215 | 10 ppbv | 50mL | 1.00 | | | 1027 | | Exp. 11/5/14 Sm: 1 out |
| 4 | ✓ | 04 | LCSD (50 ppbv) | 2677-215 | 10 ppbv | 50mL | 1.00 | | | 1111 | | Exp. 11/5/14 |
| 5 | ✓ | 05 | System Blank | 35248 | Humid | 250mL | 1.00 | | | 1159 | | Oxygenates out |
| 6 | ✓ | 06 | 1 CAL level 7 | 2637-3 | 0.5 ppbv | 25mL | 1.00 | | | 1242 | | Exp. 1/15/15 oxygenates |
| 7 | ✓ | 07 | 8 | ↓ | 1.0 ppbv | 50mL | 1.00 | | | 1340 | | ↓ |
| 8 | ✓ | 08 | 9 | | 5.0 ppbv | 250mL | 1.00 | | | 1427 | | |
| 9 | ✓ | 09 | 7 | 2677-10 | 0.5 ppbv | 25mL | 1.00 | | | 1522 | gd/ AG | Exp. 12/4/14 AT: 1 |
| 10 | ✓ | 10 | 8 | | 1.0 ppbv | 50mL | 1.00 | gd | | 1602 | gd/ AG | ↓ |
| 11 | ✓ | 11 | 9 | ↓ | 5.0 ppbv | 250mL | 1.00 | gd | | 1706 | gd/ AG | |
| 12 | ✓ | 12 | TPHg CCV (2500 ppbv) | 2677-287 | 125 ppbv | 12.5mL | 1.00 | gd | | 1924 | gd/ AG | |
| 13 | ✓ | 13 | Lab Blank | 35248 | Humid | 250mL | 1.00 | gd | | 2044 | gd/ AG | |
| 14 | ✓ | 14 | 1410185A-01AB | 33943 | 2"Hg - 5.3 psi | 250mL | 1.46 | gd | | 2154 | gd/ AG | |

gd
Reviewed

10/17/14
Date

**Eurofins Air Toxics, Inc.** **MSD-V** **Logbook #2684**

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: | (314160 / 324860) x 100 = 96.84 |
| Tekmar Purge Flow: | |
| Vacuum: | 2 in Hg |

| | | | |
|---|---|---|---|
| IS/S Std. #: | 2677-225 | Exp. Date: | 12/23/14 |
| BCM | LL: 971523 | Sm: | 98277 |
| 1,4-DFB | 354906 | | 337412 |
| CB-d5 | 297425 | | 315597 |

Verified CCV IS vs ICAL mid-point (-40%D): EB

| | |
|---|---|
| File ID: | V102203 |
| Compound: | Toluene-d8 |
| Initials: | EB |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 340347 ) x ( 5.000 ) = 4.988
( 351706 ) ( 0.76151 )

SOP# (Circle one): 6 / 83 / 88 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 4.988

Method Name: V14V1006C/V14S1006CA

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By/Initials | Date Analyzed | Time Analyzed | Reviewed By/Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | V102201 | BFB TUNE check | 2699-788 | 50ng | 2mL | 1.00 | EB | 10/22/14 | 0904 | EB | |
| 2 | X | 02 | CCV (50 ppbv) | 2677-263 | 10 ppbv | 50mL | 1.00 | EB | | 0929 | EB | Exp. 11/4/14 Sure out |
| 3 | ✓ | 03 | CCV (50 ppbv) | 2677-263 | 10 ppbv | 50mL | 1.00 | EB | | 1010 | EB | Exp. 11/4/14 Ø out |
| 4 | ✓ | 04 | LCS (50 ppbv) | 2677-272 | 10 ppbv | 50mL | 1.00 | EB | | 1051 | EB | Exp. 11/5/14 LL: 3 out SM: 2 out |
| 5 (10/24/14) | ✓ | 05 | LCSD (50 ppbv) | 2677-272 | 10 ppbv | 50mL | 1.00 | EB | | 1133 | EB | Exp. 11/5/14 |
| 6 | X ✓ | 06 | ICAL LEVEL 7 | 2687-31 | 0.5 ppbv | 25mL | 1.00 | EB | | 1420 | EB | Exp. 11/25/14 COMBO |
| 7 (10/24/14) | X | 07 | ↓ 8 | | 1.0 ppbv | 125mL | 1.00 | EB | | 1455 | EB | (INCORRECT AMT. LOADED) |
| 8 | X ✓ | 08 | ↓ 9 | ↓ | 5.0 ppbv | 250mL | 1.00 | EB | | 1531 | EB | ↓ |
| 9 | X | 09 | LAB BLANK | 34008 | HUM 10 | 250ml | 1.00 | EJ | | 1612 | EJ | LAB BLANK CONTAMINATED ACETONITRILE |
| 10 | X | 10 | SYSTEM BLANK | ↓ | ↓ | 250ml | 1.00 | EJ | | 1710 | EJ | ↓ |
| 11 | ✓ | 11 | ↓ | 25313 | HUM 10 | 250ml | 1.00 | EJ | | 1812 | EJ | |
| 12 | ✓ | 12 | ICAL LEVEL 8 | 2687-31 | 1.0 ppbv | 50ml | 1.00 | EJ | | 1915 | EJ | Exp: 11/25/14 COMBO; CCV |
| 13 | ✓ | 13 | LAB BLANK | 25313 | HUM 10 | 250ml | 1.00 | EJ | | 2023 | EJ | |
| 14 | ✓ | 14 | 141016S-QA | 9922 | 12.3 psi-12.3 psi | 250ml | 1.00 | EJ | | 2123 | EJ | |

EJ
Reviewed

10/22/14
Date

**Eurofins Air Toxics, Inc.** **MSD-V** **Logbook #2684**

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: (222829/231786) x 100 = 96.14% | |
| Tekmar Purge Flow: | |
| Vacuum: | 11/3/14 ACT |

| | | | |
|---|---|---|---|
| IS/S Std. #: | 2687-57 | Exp. Date: | 1/28/15 |
| BCM LL. | 1026600 | SIM. | 1075113 |
| 1,4-DFB | 414479 | | 427505 |
| CB-d5 | 3440409 | | 3661141 |

Verified CCV IS vs ICAL mid-point (-40%D): ~~ET~~

| | |
|---|---|
| File ID: | V110303 |
| Compound: | ~~TOLUENE-d8~~ |
| Initials: | ET |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 418052 ) x ( 5.000 ) = 5.208
( 414479 ) ( 0.96131 )

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): ~~TO-14A/TO-15~~/TO-17 Reported Result: 5.208

Method Name: ~~V1006 V1111006D A/V1145~~

| | Use | File | Lab ID# (V1141006D/V1145100 6A) | Can# | Pressure | Amt. Loaded | DF | Loaded By Initials | Date Analyzed | Time Analyzed | Reviewed By Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | V110301 | BFB Tune Check | 2299-790 | 50 ng | 2.0 µl | 1.00 | ACT | 11/3/14 | 0627 | ACT | |
| 2 | ✓ | 02 | System Prime | House Line | Dry | 250 mL | | ACT | | 0657 | ACT | |
| 3 | ✓ | 03 | CCV (50 ppbv) | 2677-213 | 10 ppbv | 50 mL | | ACT | | 0740 | ET | Exp 12/4/14 |
| 4 | ✓ | 04 | LCS (50 ppbv) | 2677-213 | 10 ppbv | 50 mL | | ET | | 0826 | ET | Exp. 11/5/14 |
| 5 | ✓ | 05 | LCSD (50 ppbv) | 2677-213 | 10 ppbv | 50 mL | | ET | | 0907 | ET | Exp. 11/5/14 |
| 6 | ✓ | 06 | ICAL Level 13 | 2677-10 | 2.0 ppbv | 100 mL | | ET | | 1022 | ET | Exp. 12/4/14 AT-1 CCV |
| 7 | ✓ | 07 | ICAL Level 16 | ↓ | 4.0 ppbv | 200 mL | | ET | | 1117 | ET | ↓ |
| 8 | N/A | 08 | LAB Blank | 3400B | 4 mmHg | 250 mL | | ET | | 1211 | ET | |
| 9 | ✓ | 09 | ~~LCS~~ LCS cp (5.00) | 2681-19 | 2.0 ppbv | 100 mL | | ET | | 1430 | ET | Exp. 12/30/14 AT-1 |
| 10 | ✓ | 10 | LAB Blank | 3400B | 4 mmHg | 250 mL | | ET | | 1522 | ET | |
| 11 | ✗ | 11 | 1410506-01AB | 35261 | 6.7 mmHg-5psig | 125 mL | 3.46 | EA | | 1728 | EA | Overdil. |
| 12 | ✓ | 12 | ↓ -01AB | ↓ | ↓ | 250 mL | 1.73 | EA | | 1832 | EA | |
| 13 | ✗ | 13 | 1410467-01B | 5564 | 6.5 mmHg-5psig | 125 mL | 3.42 | EA | | 1919 | EA | TCE - overrange (470ppbv) mmg sample |
| 14 | ✗ | 14 | System Blank | 2531 | Humid | 250 mL | 1.00 | EA | | 2039 | EA | TCE RL |

Reviewed 11/03/14 Date

Air Toxics Ltd.
Modified EPA Methods TO-14A/TO-15 Low Level
Internal Standard and Associated Target Compounds and Surrogates

| Bromochloromethane |
|---|
| **Target Compounds:** |
| Freon 12 |
| Freon 114 |
| Chloromethane |
| Vinyl Chloride |
| 1,3-Butadiene |
| Bromomethane |
| Chloroethane |
| Freon 11 |
| Ethanol |
| Freon 113 |
| 1,1-Dichloroethene |
| Acetone |
| 2-Propanol |
| Carbon Disulfide |
| Methylene Chloride |
| Methyl tert-butyl ether |
| trans-1,2-Dichloroethene |
| Hexane |
| 1,1-Dichloroethane |
| 2-Butanone (Methyl Ethyl Ketone) |
| cis-1,2-Dichloroethene |
| Tetrahydrofuran |
| Chloroform |
| 1,1,1-Trichloroethane |
| Cyclohexane |
| Carbon Tetrachloride |
| **Surrogates:** |
| 1,2-Dichloroethane-d4 |

| 1,4-Difluorobenzene |
|---|
| **Target Compounds:** |
| Benzene |
| 1,2-Dichloroethane |
| Heptane |
| Trichloroethene |
| 1,2-Dichloropropane |
| 1,4-Dioxane |
| Bromodichloromethane |
| cis-1,3-Dichloropropene |
| 4-Methyl-2-pentanone |
| Toluene |
| **Surrogates:** |
| Toluene-d8 |

| Chlorobenzene-d5 |
|---|
| **Target Compounds:** |
| trans-1,3-Dichloropropene |
| 1,1,2-Trichloroethane |
| Tetrachloroethene |
| 2-Hexanone |
| Dibromochloromethane |
| 1,2-Dibromoethane (EDB) |
| Chlorobenzene |
| Ethyl Benzene |
| m,p-Xylene |
| o-Xylene |
| Styrene |
| Bromoform |
| Cumene |
| 1,1,2,2-Tetrachloroethane |
| Propylbenzene |
| 4-Ethyltoluene |
| 1,3,5-Trimethylbenzene |
| 1,2,4-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| alpha-Chlorotoluene |
| 1,2-Dichlorobenzene |
| 1,2,4-Trichlorobenzene |
| Hexachlorobutadiene |
| **Surrogates:** |
| Bromofluorobenzene |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100619.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 07-OCT-2014 11:27
Operator : ef Inst ID: msdv.i
Smp Info : 50mL # 2677-275
Misc Info : 10ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 07-OCT-2014 10:14 Cal File: v100618.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.934 (1.000) | 130 | 120773 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.934 (1.000) | 128 | 93757 | | | 47.54- 107.54 | 77.63 |
| 15.933 | 15.934 (1.000) | 49 | 294698 | | | 218.45- 278.45 | 244.01 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 486323 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 79004 | | | 0.00- 46.16 | 16.25 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 395102 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 229670 | | | 29.12- 89.12 | 58.13 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 219896 | 4.96111 | 4.961 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 131534 | | | 28.37- 88.37 | 59.82 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 478058 | 5.11282 | 5.113 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 56883 | | | 0.00- 41.90 | 11.90 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 80 Toluene-d8 (continued) | | | | | | | |
| 19.879 | 19.879 (1.149) | 100 | 307253 | | | 33.85- 93.85 | 64.27 |
| $ 106 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 23.704 | 23.704 (1.067) | 174 | 175668 | 5.17000 | 5.170 | 70.00- 130.00 | 100.00 |
| 23.704 | 23.704 (1.067) | 95 | 230246 | | | 99.95- 159.95 | 131.07 |
| 23.704 | 23.704 (1.067) | 176 | 171283 | | | 67.64- 127.64 | 97.50 |
| 3 Propylene | | | | | CAS #: 115-07-1 | | |
| 4.711 | 4.673 (0.296) | 41 | 654174 | 9.65470 | 9.655 | 70.00- 130.00 | 100.00 |
| 4.711 | 4.673 (0.296) | 42 | 424198 | | | 35.18- 95.18 | 64.84 |
| 4.673 | 4.673 (0.293) | 39 | 466541 | | | 44.12- 104.12 | 71.32 |
| 4 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 5.202 | 5.202 (0.326) | 85 | 1203775 | 10.6387 | 10.639 | 70.00- 130.00 | 100.00 |
| 5.240 | 5.202 (0.329) | 87 | 379272 | | | 1.90- 61.90 | 31.51 |
| 6 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 6.750 | 6.712 (0.424) | 135 | 833015 | 10.3088 | 10.309 | 70.00- 130.00 | 100.00 |
| 6.750 | 6.712 (0.424) | 137 | 266480 | | | 0.53- 60.53 | 31.99 |
| 6.713 | 6.712 (0.421) | 85 | 1128886 | | | 121.37- 181.37 | 135.52 |
| 8 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 7.090 | 7.052 (0.445) | 50 | 683265 | 10.0202 | 10.020 | 70.00- 130.00 | 100.00 |
| 7.090 | 7.052 (0.445) | 52 | 209402 | | | 1.81- 61.81 | 30.65 |
| 9 Butane | | | | | CAS #: 106-97-8 | | |
| 7.884 | 7.884 (0.495) | 58 | 118564 | 10.3755 | 10.376 | 70.00- 130.00 | 100.00 |
| 7.884 | 7.884 (0.495) | 43 | 1300781 | | | 1065.18-1125.18 | 1097.11 |
| 10 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 8.009 | 8.008 (0.503) | 62 | 531395 | 10.4436 | 10.444 | 70.00- 130.00 | 100.00 |
| 8.009 | 8.008 (0.503) | 64 | 165750 | | | 0.00- 58.65 | 31.19 |
| 11 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 8.257 | 8.257 (0.518) | 54 | 491994 | 9.86306 | 9.863 | 70.00- 130.00 | 100.00 |
| 8.257 | 8.257 (0.518) | 39 | 660933 | | | 107.15- 167.15 | 134.34 |
| 12 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 9.834 | 9.834 (0.617) | 94 | 332312 | 10.6532 | 10.653 | 70.00- 130.00 | 100.00 |
| 9.834 | 9.834 (0.617) | 96 | 308379 | | | 72.12- 132.12 | 92.80 |
| 17 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 10.364 | 10.364 (0.650) | 64 | 247927 | 10.4843 | 10.484 | 70.00- 130.00 | 100.00 |
| 10.364 | 10.364 (0.650) | 66 | 71796 | | | 0.00- 59.90 | 28.96 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 494003 | 10.1412 | 10.141 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 994435 | | | 171.32- 231.32 | 201.30 |
| 10.533 | 10.533 (0.661) | 42 | 867247 | | | 150.03- 210.03 | 175.55 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.184 (0.702) | 101 | 1196203 | 10.2704 | 10.270 | 70.00- 130.00 | 100.00 |
| 11.183 | 11.184 (0.702) | 103 | 769217 | | | 36.54- 96.54 | 64.30 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.074 (0.759) | 45 | 300095 | 12.1546 | 12.155 | 70.00- 130.00 | 100.00 |
| 12.101 | 12.101 (0.759) | 46 | 116062 | | | 8.51- 68.51 | 38.68 |
| 12.101 | 12.101 (0.759) | 43 | 63376 | | | 0.00- 54.10 | 21.12 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 279949 | 10.7560 | 10.756 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 958626 | | | 320.65- 380.65 | 342.43 |
| 12.568 | 12.568 (0.789) | 96 | 436909 | | | 134.30- 194.30 | 156.07 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.569 (0.789) | 151 | 732539 | 10.4485 | 10.448 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.569 (0.789) | 153 | 458386 | | | 33.10- 93.10 | 62.57 |
| 12.568 | 12.569 (0.789) | 101 | 908906 | | | 96.37- 156.37 | 124.08 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.815 (0.804) | 58 | 315146 | 11.0442 | 11.044 | 70.00- 130.00 | 100.00 |
| 12.816 | 12.815 (0.804) | 43 | 1382914 | | | 413.15- 473.15 | 438.82 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 1051804 | 9.50126 | 9.501 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.392 | 13.365 (0.841) | 76 | 170520 | 10.6740 | 10.674 | 70.00- 130.00 | 100.00 |
| 13.392 | 13.365 (0.841) | 41 | 995678 | | | 547.03- 607.03 | 583.91 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 1416204 | 10.7179 | 10.718 | 70.00- 130.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 271943 | | | 0.00- 50.74 | 19.20 |
| 13.173 | 13.173 (0.827) | 59 | 40653 | | | 0.00- 32.83 | 2.87 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.667 | 13.639 (0.858) | 84 | 383970 | 10.4576 | 10.458 | 70.00- 130.00 | 100.00 |
| 13.640 | 13.639 (0.856) | 49 | 917404 | | | 212.37- 272.37 | 238.93 |
| 13.667 | 13.639 (0.858) | 51 | 273542 | | | 43.31- 103.31 | 71.24 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 80268 | 0.69313 | 0.6931 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 38 tert-butyl alcohol (continued) | | | | | | | |
| 13.859 | 13.859 (0.870) | 41 | 24408 | | | 1.97- 61.97 | 30.41 |
| 13.859 | 13.859 (0.870) | 57 | 7458 | | | 0.00- 40.67 | 9.29 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.996 | 13.996 (0.878) | 73 | 1298416 | 9.85655 | 9.856 | 70.00- 130.00 | 100.00 |
| 13.996 | 13.996 (0.878) | 57 | 421575 | | | 2.99- 62.99 | 32.47 |
| 13.996 | 13.996 (0.878) | 41 | 539230 | | | 12.12- 72.12 | 41.53 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 249635 | 10.1371 | 10.137 | 70.00- 130.00 | 100.00 |
| 14.051 | 14.051 (0.882) | 61 | 751401 | | | 293.73- 353.73 | 301.00 |
| 14.051 | 14.051 (0.882) | 96 | 397196 | | | 146.88- 206.88 | 159.11 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 1036858 | 9.83659 | 9.836 | 70.00- 130.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 915798 | | | 57.65- 117.65 | 88.32 |
| 14.381 | 14.381 (0.903) | 86 | 110159 | | | 0.00- 40.67 | 10.62 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 1027033 | 10.0404 | 10.040 | 70.00- 130.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 305043 | | | 0.37- 60.37 | 29.70 |
| 47 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.793 | 14.793 (0.928) | 86 | 116238 | 11.1328 | 11.133 | 70.00- 130.00 | 100.00 |
| 14.793 | 14.793 (0.928) | 42 | 202697 | | | 220.92- 280.92 | 174.38 |
| 14.793 | 14.793 (0.928) | 43 | 2412420 | | | 3282.47-3342.47 | 2075.40 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 336730 | 10.3041 | 10.304 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 61 | 931718 | | | 248.69- 308.69 | 276.70 |
| 15.592 | 15.592 (0.979) | 96 | 539989 | | | 132.55- 192.55 | 160.36 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.592 (0.979) | 72 | 224657 | 10.5777 | 10.578 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.571 (0.979) | 43 | 1824257 | | | 794.80- 854.80 | 812.02 |
| 15.592 | 15.571 (0.979) | 57 | 107169 | | | 18.01- 78.01 | 47.70 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 1057652 | 9.66371 | 9.664 | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 203201 | | | 0.00- 49.03 | 19.21 |
| 15.933 | 15.933 (1.000) | 72 | 229255 | | | 0.00- 51.35 | 21.68 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 1000469 | 9.82989 | 9.830 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 644787 | | | 33.33- 93.33 | 64.45 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.272 | 16.272 (1.021) | 84 | 633744 | 9.90031 | 9.900 | 70.00- 130.00 | 100.00 |
| 16.272 | 16.272 (1.021) | 56 | 1179833 | | | 157.43- 217.43 | 186.17 |
| 16.272 | 16.242 (1.021) | 41 | 864834 | | | 105.99- 165.99 | 136.46 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 1031502 | 9.70565 | 9.706 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 660507 | | | 32.16- 92.16 | 64.03 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.457 | 16.458 (1.033) | 119 | 1028331 | 10.0871 | 10.087 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.458 (1.033) | 117 | 1048664 | | | 69.67- 129.67 | 101.98 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 1077948 | 9.66316 | 9.663 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 3211970 | | | 258.69- 318.69 | 297.97 |
| 16.728 | 16.728 (1.050) | 41 | 1162918 | | | 79.91- 139.91 | 107.88 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.755 (0.968) | 78 | 1395370 | 9.72275 | 9.723 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.755 (0.968) | 77 | 326048 | | | 0.00- 53.73 | 23.37 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 844960 | 9.71509 | 9.715 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 256665 | | | 1.11- 61.11 | 30.38 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 628900 | 10.1675 | 10.167 | 70.00- 130.00 | 100.00 |
| 16.975 | 16.975 (0.981) | 100 | 131494 | | | 0.00- 51.27 | 20.91 |
| 16.975 | 16.975 (0.981) | 43 | 1610508 | | | 235.24- 295.24 | 256.08 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.716 | 17.717 (1.024) | 130 | 647960 | 10.0296 | 10.030 | 70.00- 130.00 | 100.00 |
| 17.716 | 17.717 (1.024) | 95 | 631163 | | | 71.16- 131.16 | 97.41 |
| 17.716 | 17.717 (1.024) | 97 | 410463 | | | 33.04- 93.04 | 63.35 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.963 (1.038) | 83 | 857415 | 10.1064 | 10.106 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.963 (1.038) | 98 | 394730 | | | 15.02- 75.02 | 46.04 |
| 17.964 | 17.963 (1.038) | 55 | 1062059 | | | 95.64- 155.64 | 123.87 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 646421 | 9.81888 | 9.819 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 471708 | | | 45.17- 105.17 | 72.97 |
| 18.156 | 18.156 (1.049) | 41 | 584615 | | | 59.65- 119.65 | 90.44 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.265 (1.056) | 88 | 325624 | 9.84173 | 9.842 | 70.00- 130.00 | 100.00 |
| 18.266 | 18.265 (1.056) | 58 | 324927 | | | 72.13- 132.13 | 99.79 |
| 18.266 | 18.265 (1.056) | 57 | 111817 | | | 4.41- 64.41 | 34.34 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 1120261 | 10.2784 | 10.278 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 712058 | | | 32.12- 92.12 | 63.56 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 797541 | 10.7066 | 10.707 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 248420 | | | 1.25- 61.25 | 31.15 |
| 19.408 | 19.408 (1.122) | 39 | 793668 | | | 71.17- 131.17 | 99.51 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 2186524 | 10.7937 | 10.794 | 70.00- 130.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 593805 | | | 0.00- 57.24 | 27.16 |
| 19.587 | 19.587 (1.132) | 85 | 180272 | | | 0.00- 38.20 | 8.24 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 1566189 | 9.88650 | 9.886 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 913117 | | | 28.60- 88.60 | 58.30 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.434 (0.920) | 75 | 800735 | 9.83197 | 9.832 | 70.00- 130.00 | 100.00 |
| 20.435 | 20.434 (0.920) | 77 | 249611 | | | 5.48- 65.48 | 31.17 |
| 20.435 | 20.434 (0.920) | 39 | 740414 | | | 63.15- 123.15 | 92.47 |
| 84 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.757 | 20.758 (0.935) | 97 | 616425 | 9.91166 | 9.912 | 70.00- 130.00 | 100.00 |
| 20.757 | 20.758 (0.935) | 99 | 378447 | | | 32.13- 92.13 | 61.39 |
| 20.757 | 20.758 (0.935) | 83 | 527643 | | | 57.82- 117.82 | 85.60 |
| 86 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.901 | 20.937 (0.941) | 166 | 774757 | 9.63541 | 9.635 | 70.00- 130.00 | 100.00 |
| 20.901 | 20.937 (0.941) | 129 | 602088 | | | 47.04- 107.04 | 77.71 |
| 20.901 | 20.901 (0.941) | 131 | 597852 | | | 46.95- 106.95 | 77.17 |
| 87 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 21.044 | 21.044 (0.948) | 58 | 753256 | 10.8161 | 10.816 | 70.00- 130.00 | 100.00 |
| 21.044 | 21.044 (0.948) | 43 | 1998283 | | | 242.48- 302.48 | 265.29 |
| 21.044 | 21.044 (0.948) | 100 | 104936 | | | 0.00- 43.88 | 13.93 |
| 89 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 21.367 | 21.367 (0.962) | 129 | 1155139 | 9.97948 | 9.979 | 70.00- 130.00 | 100.00 |
| 21.367 | 21.367 (0.962) | 127 | 893741 | | | 50.38- 110.38 | 77.37 |

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   90 1,2-Dibromoethane                             CAS #: 106-93-4
 21.583  21.583 (0.972)   107    965606 9.96654    9.966  70.00- 130.00   100.00
 21.583  21.583 (0.972)   109    885945                   62.69- 122.69    91.75
-------------------------------------------------------------------------------
   93 Chlorobenzene                                 CAS #: 108-90-7
 22.233  22.233 (1.001)   112   1253201 9.65870    9.659  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114    397663                    1.62-  61.62    31.73
 22.233  22.233 (1.001)    77    740516                   38.66-  98.66    59.09
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                 CAS #: 100-41-4
 22.315  22.315 (1.005)   106    586419 10.0697   10.070  70.00- 130.00   100.00
 22.315  22.315 (1.005)    91   1816065                  292.36- 352.36   309.69
-------------------------------------------------------------------------------
   96 m,p-Xylene                                    CAS #: 108-38-3
 22.480  22.480 (1.012)   106    580227 10.1042   10.104  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91   1152965                  164.15- 224.15   198.71
-------------------------------------------------------------------------------
  100 o-Xylene                                      CAS #: 95-47-6
 23.001  23.001 (1.036)   106    536037 10.0317   10.032  70.00- 130.00   100.00
 23.001  23.001 (1.036)    91   1164270                  186.63- 246.63   217.20
-------------------------------------------------------------------------------
  101 Styrene                                       CAS #: 100-42-5
 23.029  23.029 (1.037)   104    860390 11.0062   11.006  70.00- 130.00   100.00
 23.029  23.029 (1.037)    78    450432                   28.70-  88.70    52.35
-------------------------------------------------------------------------------
  102 Bromoform                                     CAS #: 75-25-2
 23.331  23.331 (1.051)   173   1013935 10.3350   10.335  70.00- 130.00   100.00
 23.331  23.331 (1.051)   171    525561                   20.40-  80.40    51.83
-------------------------------------------------------------------------------
  103 Cumene                                        CAS #: 98-82-8
 23.441  23.441 (1.056)   105   1597561 10.2382   10.238  70.00- 130.00   100.00
 23.441  23.441 (1.056)   120    446809                    0.00-  57.73    27.97
-------------------------------------------------------------------------------
  108 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 23.832  23.833 (1.073)    83   1113327 9.28813    9.288  70.00- 130.00   100.00
 23.832  23.833 (1.073)    85    708390                   34.81-  94.81    63.63
-------------------------------------------------------------------------------
  111 Propylbenzene                                 CAS #: 103-65-1
 23.910  23.910 (1.077)    91   1447977 10.4617   10.462  70.00- 130.00   100.00
 23.910  23.910 (1.077)   120    342620                    0.00-  53.83    23.66
-------------------------------------------------------------------------------
  113 4-Ethyltoluene                                CAS #: 622-96-8
 24.039  24.039 (1.083)   105   1036583 10.2087   10.209  70.00- 130.00   100.00
 24.039  24.039 (1.083)   120    319284                    0.18-  60.18    30.80
-------------------------------------------------------------------------------
  114 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.116  24.116 (1.086)   105   1050404 12.3897   12.390  70.00- 130.00   100.00
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| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 114 1,3,5-Trimethylbenzene (continued) | | | | | | | |
| 24.116 | 24.116 (1.086) | 120 | 496090 | | | 20.44- 80.44 | 47.23 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 721694 | 10.5103 | 10.510 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 339745 | | | 19.27- 79.27 | 47.08 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 679755 | 10.2596 | 10.260 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 436033 | | | 38.48- 98.48 | 64.15 |
| 24.902 | 24.902 (1.121) | 111 | 276072 | | | 10.49- 70.49 | 40.61 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 606668 | 9.73994 | 9.740 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 391218 | | | 38.92- 98.92 | 64.49 |
| 24.992 | 25.015 (1.125) | 111 | 235922 | | | 11.61- 71.61 | 38.89 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.126 | 25.126 (1.132) | 91 | 1062162 | 15.9607 | 15.961 | 70.00- 130.00 | 100.00(R) |
| 25.126 | 25.126 (1.132) | 126 | 225119 | | | 0.00- 52.82 | 21.19 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.418 (1.144) | 146 | 624492 | 10.1587 | 10.159 | 70.00- 130.00 | 100.00 |
| 25.395 | 25.396 (1.144) | 148 | 399014 | | | 36.09- 96.09 | 63.89 |
| 25.395 | 25.396 (1.144) | 111 | 262237 | | | 13.38- 73.38 | 41.99 |
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 441878 | 9.79487 | 9.795 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.099 (1.219) | 182 | 425295 | | | 64.14- 124.14 | 96.25 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.167 (1.223) | 225 | 382154 | 10.1285 | 10.128 | 70.00- 130.00 | 100.00 |
| 27.166 | 27.167 (1.223) | 223 | 243156 | | | 44.27- 104.27 | 63.63 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.368 (1.234) | 128 | 74325 | 0.69568 | 0.6957 | 70.00- 130.00 | 100.00 |
| 27.391 | 27.368 (1.234) | 127 | 13136 | | | 0.00- 47.41 | 17.67 |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100619.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 120773 | -3.46 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 486323 | -2.38 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 395102 | -2.78 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 07-Oct-2014 12:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 06Oct2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 10ppbv (50ppbv)

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 4 Dichlorodifluorome | 10.000 | 10.639 | 106.39 | 70-130 |
| 3 Propylene | 10.000 | 9.655 | 96.55 | 60-140 |
| 6 Freon 114 | 10.000 | 10.309 | 103.09 | 70-130 |
| 8 Chloromethane | 10.000 | 10.020 | 100.20 | 70-130 |
| 10 Vinyl Chloride | 10.000 | 10.444 | 104.44 | 70-130 |
| 11 1,3-Butadiene | 10.000 | 9.863 | 98.63 | 70-130 |
| 12 Bromomethane | 10.000 | 10.653 | 106.53 | 70-130 |
| 17 Chloroethane | 10.000 | 10.484 | 104.84 | 70-130 |
| 20 Trichlorofluoromet | 10.000 | 10.270 | 102.70 | 70-130 |
| 24 Ethanol | 10.000 | 12.155 | 121.55 | 70-130 |
| 28 Freon 113 | 10.000 | 10.448 | 104.49 | 70-130 |
| 30 1,1-Dichloroethene | 10.000 | 10.756 | 107.56 | 70-130 |
| 31 Acetone | 10.000 | 11.044 | 110.44 | 70-130 |
| 33 Carbon Disulfide | 10.000 | 9.501 | 95.01 | 70-130 |
| 34 2-Propanol | 10.000 | 10.718 | 107.18 | 70-130 |
| 35 3-Chloroprene | 10.000 | 10.674 | 106.74 | 70-130 |
| 37 Methylene Chloride | 10.000 | 10.458 | 104.58 | 70-130 |
| 39 MTBE | 10.000 | 9.856 | 98.57 | 70-130 |
| 40 trans-1,2-Dichloro | 10.000 | 10.137 | 101.37 | 70-130 |
| 43 Hexane | 10.000 | 9.836 | 98.37 | 70-130 |
| 46 1,1-Dichloroethane | 10.000 | 10.040 | 100.40 | 70-130 |
| 47 Vinyl Acetate | 10.000 | 11.133 | 111.33 | 60-140 |
| 50 cis-1,2-Dichloroet | 10.000 | 10.304 | 103.04 | 70-130 |
| 51 2-Butanone | 10.000 | 10.578 | 105.78 | 70-130 |
| 53 Tetrahydrofuran | 10.000 | 9.664 | 96.64 | 70-130 |
| 55 Chloroform | 10.000 | 9.830 | 98.30 | 70-130 |
| 57 Cyclohexane | 10.000 | 9.900 | 99.00 | 70-130 |
| 58 1,1,1-Trichloroeth | 10.000 | 9.706 | 97.06 | 70-130 |
| 59 Carbon Tetrachlori | 10.000 | 10.087 | 100.87 | 70-130 |
| 63 2,2,4-Trimethylpen | 10.000 | 9.663 | 96.63 | 70-130 |
| 64 Benzene | 10.000 | 9.723 | 97.23 | 70-130 |
| 69 Heptane | 10.000 | 10.167 | 101.67 | 70-130 |
| 68 1,2-Dichloroethane | 10.000 | 9.715 | 97.15 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 72 Trichloroethene | 10.000 | 10.030 | 100.30 | 70-130 |
| 74 1,2-Dichloropropan | 10.000 | 9.819 | 98.19 | 70-130 |
| 75 1,4-Dioxane | 10.000 | 9.842 | 98.42 | 70-130 |
| 77 Bromodichlorometha | 10.000 | 10.278 | 102.78 | 70-130 |
| 78 cis-1,3-Dichloropr | 10.000 | 10.707 | 107.07 | 70-130 |
| 79 4-Methyl-2-pentano | 10.000 | 10.794 | 107.94 | 70-130 |
| 81 Toluene | 10.000 | 9.886 | 98.87 | 70-130 |
| 82 trans-1,3-Dichloro | 10.000 | 9.832 | 98.32 | 70-130 |
| 84 1,1,2-Trichloroeth | 10.000 | 9.912 | 99.12 | 70-130 |
| 87 2-Hexanone | 10.000 | 10.816 | 108.16 | 70-130 |
| 86 Tetrachloroethene | 10.000 | 9.635 | 96.35 | 70-130 |
| 89 Dibromochlorometha | 10.000 | 9.979 | 99.79 | 70-130 |
| 90 1,2-Dibromoethane | 10.000 | 9.966 | 99.67 | 70-130 |
| 93 Chlorobenzene | 10.000 | 9.659 | 96.59 | 70-130 |
| 95 Ethyl Benzene | 10.000 | 10.070 | 100.70 | 70-130 |
| 96 m,p-Xylene | 10.000 | 10.104 | 101.04 | 70-130 |
| 100 o-Xylene | 10.000 | 10.032 | 100.32 | 70-130 |
| 101 Styrene | 10.000 | 11.006 | 110.06 | 70-130 |
| 102 Bromoform | 10.000 | 10.335 | 103.35 | 70-130 |
| 103 Cumene | 10.000 | 10.238 | 102.38 | 70-130 |
| 108 1,1,2,2-Tetrachlor | 10.000 | 9.288 | 92.88 | 70-130 |
| 111 Propylbenzene | 10.000 | 10.462 | 104.62 | 70-130 |
| 113 4-Ethyltoluene | 10.000 | 10.209 | 102.09 | 70-130 |
| 114 1,3,5-Trimethylben | 10.000 | 12.390 | 123.90 | 70-130 |
| 120 1,2,4-Trimethylben | 10.000 | 10.510 | 105.10 | 70-130 |
| 122 1,3-Dichlorobenzen | 10.000 | 10.260 | 102.60 | 70-130 |
| 124 1,4-Dichlorobenzen | 10.000 | 9.740 | 97.40 | 70-130 |
| 127 alpha-chlorotoluen | 10.000 | 15.961 | 159.61* | 70-130 |
| 128 1,2-Dichlorobenzen | 10.000 | 10.159 | 101.59 | 70-130 |
| 131 1,2,4-Trichloroben | 10.000 | 9.795 | 97.95 | 70-130 |
| 132 Hexachlorobutadien | 10.000 | 10.128 | 101.29 | 70-130 |
| 133 Naphthalene | 1.000 | 0.6957 | 69.57 | 60-140 |
| 18 Isopentane | 10.000 | 10.141 | 101.41 | 60-140 |
| 9 Butane | 10.000 | 10.376 | 103.76 | 60-140 |
| 73 Methylcyclohexane | 10.000 | 10.106 | 101.06 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 4.961 | 99.22 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.113 | 102.26 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 5.170 | 103.40 | 70-130 |

Data File: /chem/msdv.i/06Oct2014.b/v100619.d



Date : 07-OCT-2014 11:27

Client ID: ICV

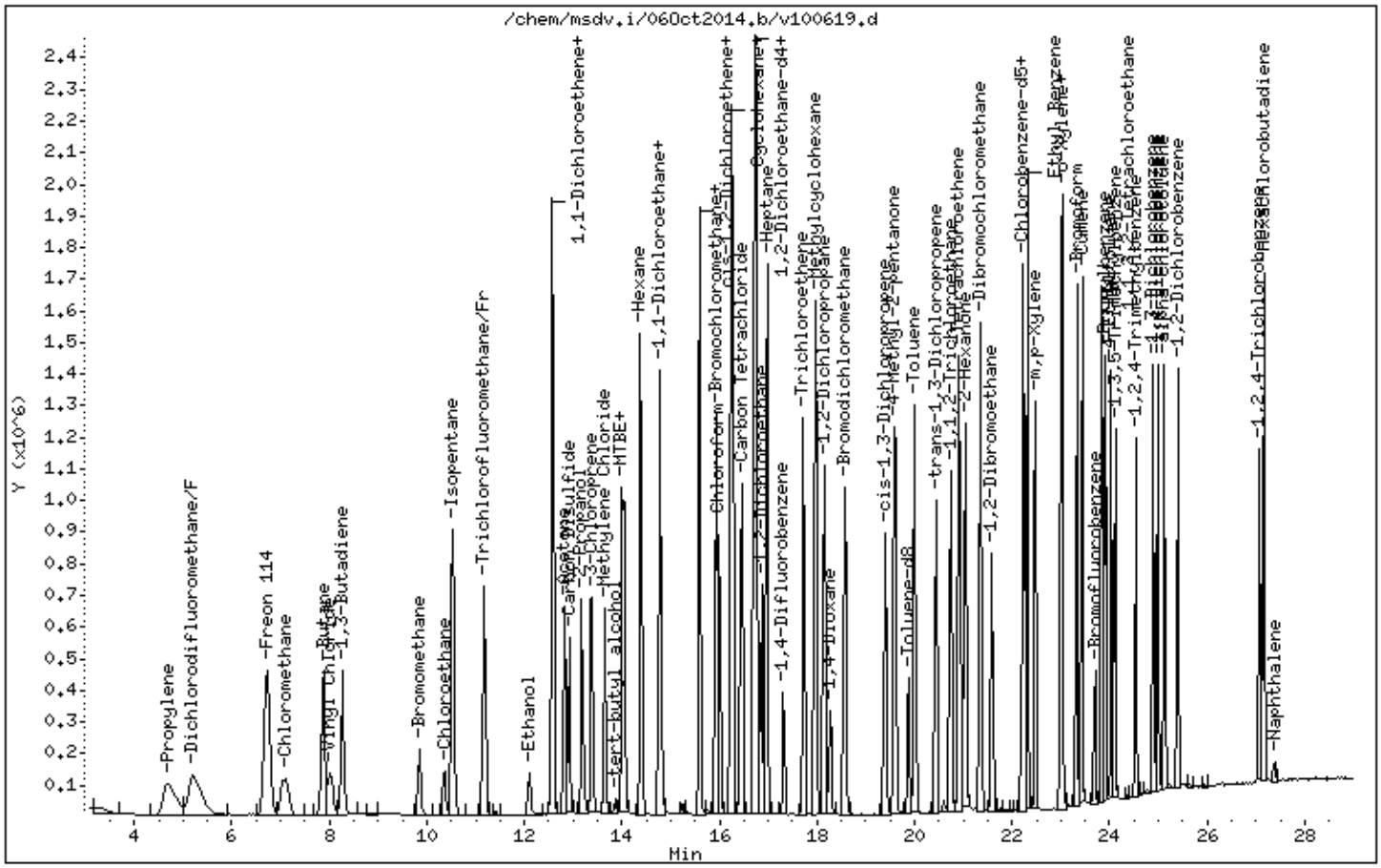
Instrument: msdv.i

Sample Info: 50mL # 2677-275

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100715.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-OCT-2014 07:48
Operator : act Inst ID: msdv.i
Smp Info : 50mL # 2677-190
Misc Info : 10ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 08-Oct-2014 08:34 efinn Quant Type: ISTD
Cal Date : 07-OCT-2014 21:35 Cal File: v100713.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7ccv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.934 (1.000) | 130 | 116556 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.934 (1.000) | 128 | 88024 | | | 48.21- 108.21 | 75.52 |
| 15.933 | 15.934 (1.000) | 49 | 279249 | | | 215.61- 275.61 | 239.58 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 477254 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 75177 | | | 0.00- 46.17 | 15.75 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 352288 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 206960 | | | 29.34- 89.34 | 58.75 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.755 | 16.756 (1.052) | 65 | 210526 | 4.92154 | 4.922 | 80.00- 120.00 | 100.00 |
| 16.755 | 16.756 (1.052) | 67 | 101766 | | | 28.37- 88.37 | 48.34 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 444294 | 4.84202 | 4.842 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 53516 | | | 0.00- 41.90 | 12.05 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    281223                    33.46-  93.46    63.30
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    128704 4.24818    4.248  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    167259                    98.58- 158.58   129.96
 23.704  23.704 (1.067)   176    128647                    68.14- 128.14    99.96
-------------------------------------------------------------------------------
   76 Octane                                        CAS #: 111-65-9
 19.946  19.968 (1.153)    57     31288 0.79568   0.7957  80.00- 120.00   100.00
 19.946  19.968 (1.153)    85     21657                    45.62- 105.62    69.22
 19.946  19.968 (1.153)    43     95018                   293.94- 353.94   303.68
-------------------------------------------------------------------------------
   99 Decane                                        CAS #: 124-18-5
 23.987  23.987 (1.080)    57     89819 0.89700   0.8970  80.00- 120.00   100.00
 23.987  23.987 (1.080)    71     25337                     0.00-  57.94    28.21
 23.987  23.987 (1.080)   142      2944                     0.00-  33.26     3.28
-------------------------------------------------------------------------------
  117 Indene                                        CAS #: 95-13-6
 25.463  25.485 (1.147)   115     29954 0.64978   0.6498  80.00- 120.00   100.00
 25.463  25.485 (1.147)   116     32323                    67.11- 127.11   107.91
  0.000  25.485 (0.000)     0         0                     0.00-  30.00     0.00
-------------------------------------------------------------------------------
  121 1,2,3-trimethylbenzene                        CAS #: 526-73-8
 24.992  24.992 (1.125)   120     28616 1.08006    1.080  80.00- 120.00   100.00
 24.992  24.992 (1.125)   105     62251                   192.71- 252.71   217.54
 24.992  24.992 (1.125)    77      9191                     2.83-  62.83    32.12
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100715.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: act
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 116556 | -5.05 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 477254 | -4.27 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 352288 | -11.48 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 08-Oct-2014 08:34

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 08Oct2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: act
Data Type: MS DATA
SampleType: LCS
SpikeList File: ObrLCS.spk
Quant Type: ISTD
Sublist File: AT7ccv.sub
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 10ppbv (50ppbv)

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 99 Decane | 1.000 | 0.8970 | 89.70 | 60-140 |
| 76 Octane | 1.000 | 0.7957 | 79.57 | 60-140 |
| 117 Indene | 1.000 | 0.6498 | 64.98 | 60-140 |
| 121 1,2,3-trimethylben | 1.000 | 1.080 | 108.01 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 4.922 | 98.43 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 4.842 | 96.84 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.248 | 84.96 | 70-130 |

Data File: /chem/msdv.i/07Oct2014.b/v100715.d



Date : 08-OCT-2014 07:48

Client ID: ICV

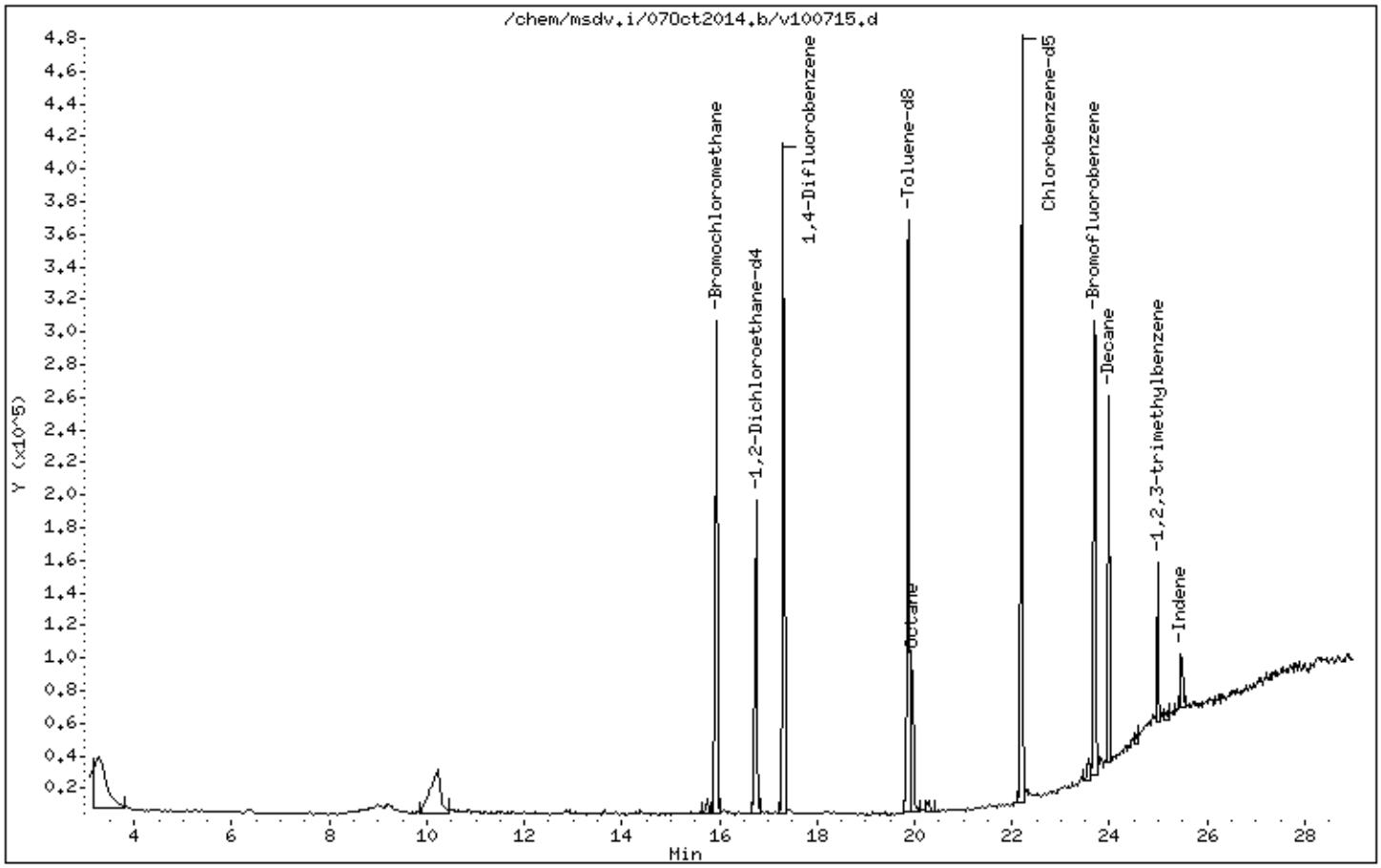
Instrument: msdv.i

Sample Info: 50mL # 2677-190

Operator: act

Column phase: RTx-624

Column diameter: 0.32



Data File: /chem/msdv.i/07Oct2014.b/v100715.d



Date : 08-OCT-2014 07:48

Client ID: ICV

Instrument: msdv.i

Sample Info: 50mL # 2677-190

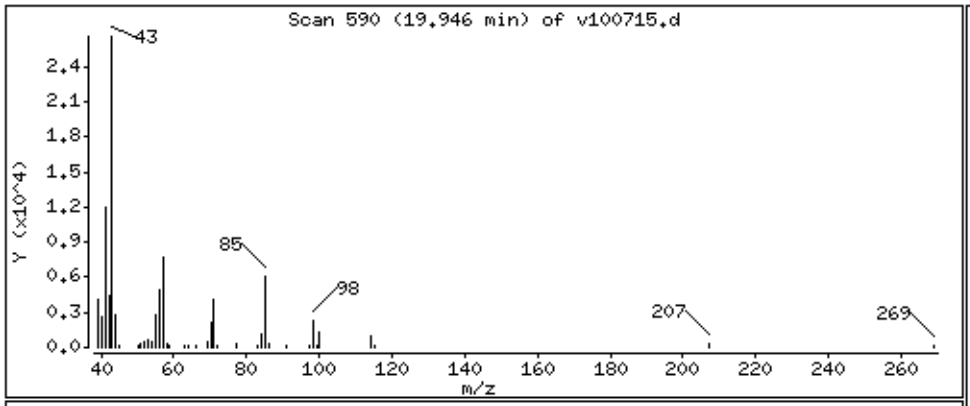
Operator: act

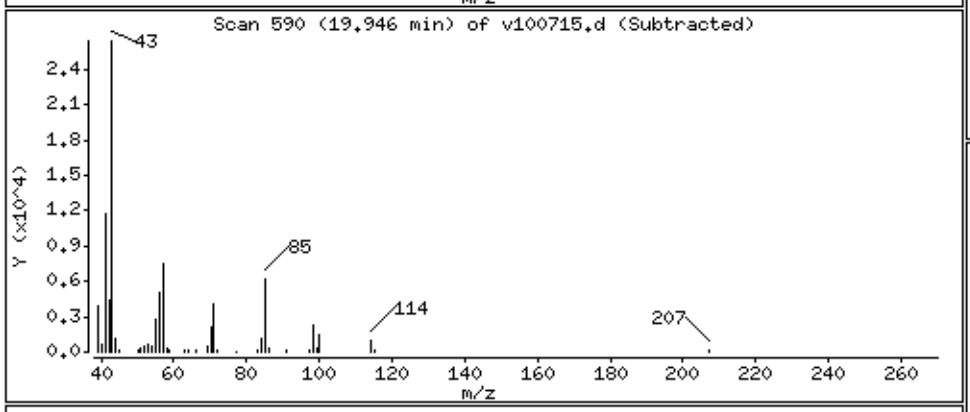
Column phase: RTx-624

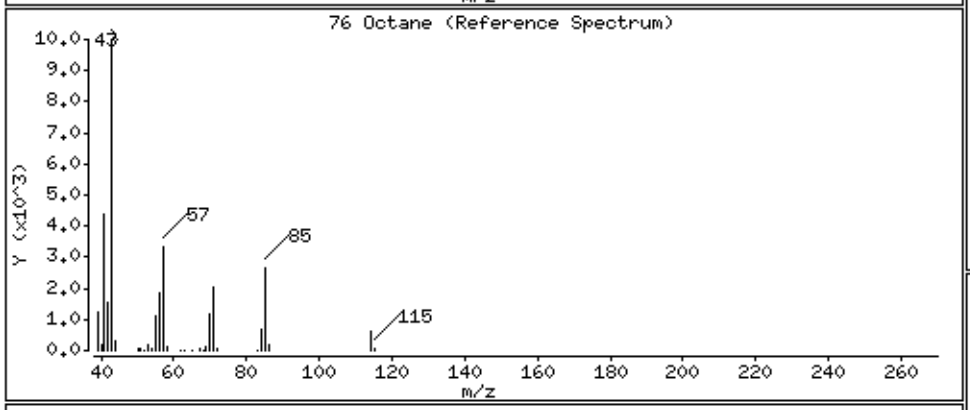
Column diameter: 0.32

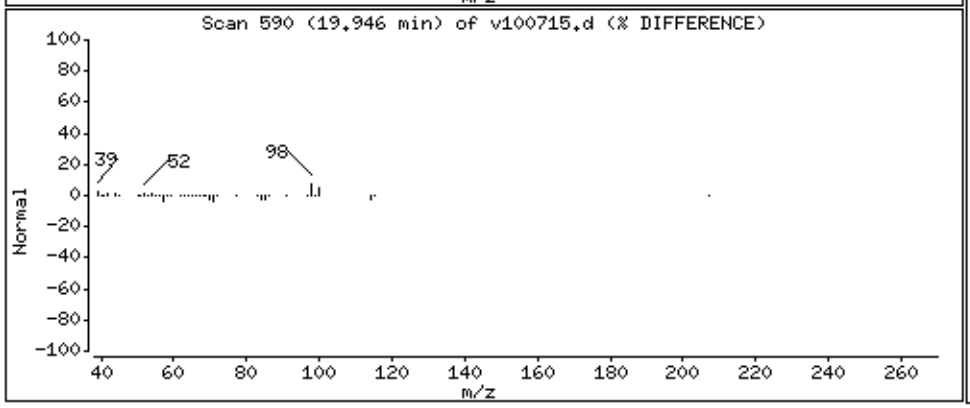
76 Octane

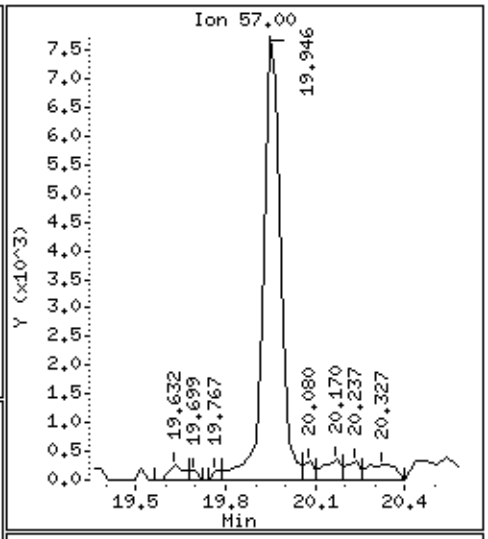
Concentration: 0.7957 PPBV

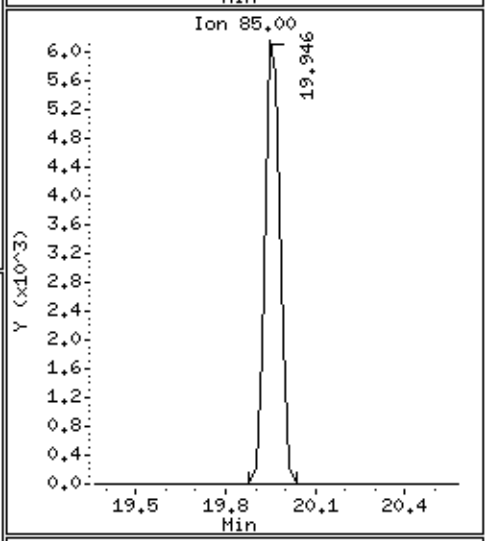


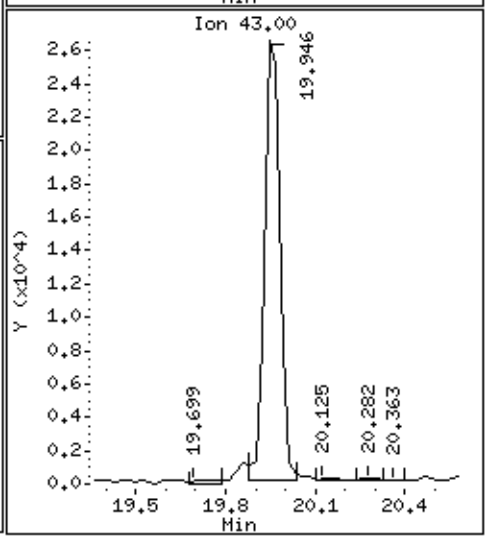



Data File: /chem/msdv.i/07Oct2014.b/v100715.d



Date : 08-OCT-2014 07:48

Client ID: ICV

Instrument: msdv.i

Sample Info: 50mL # 2677-190

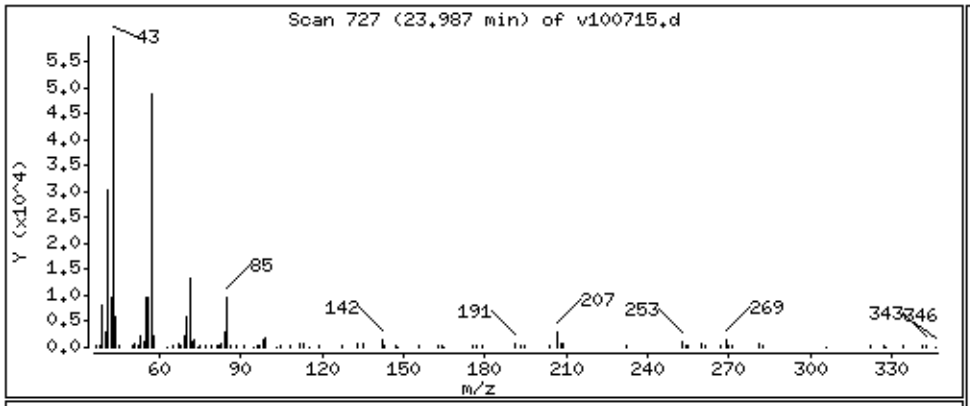
Operator: act

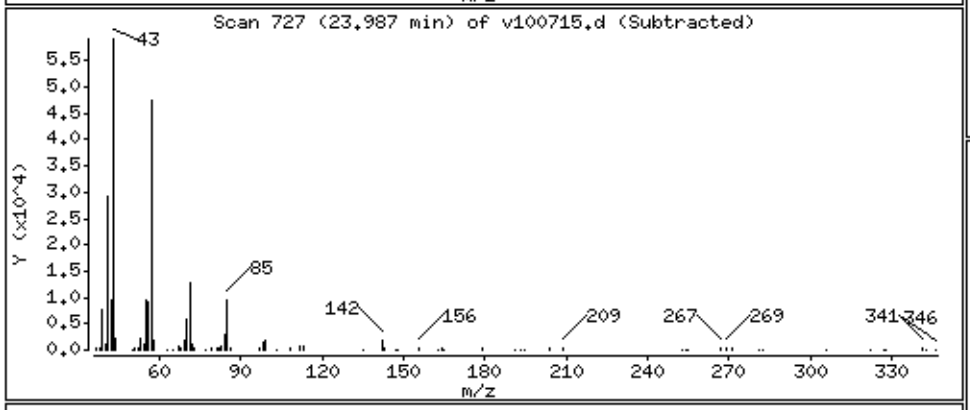
Column phase: RTx-624

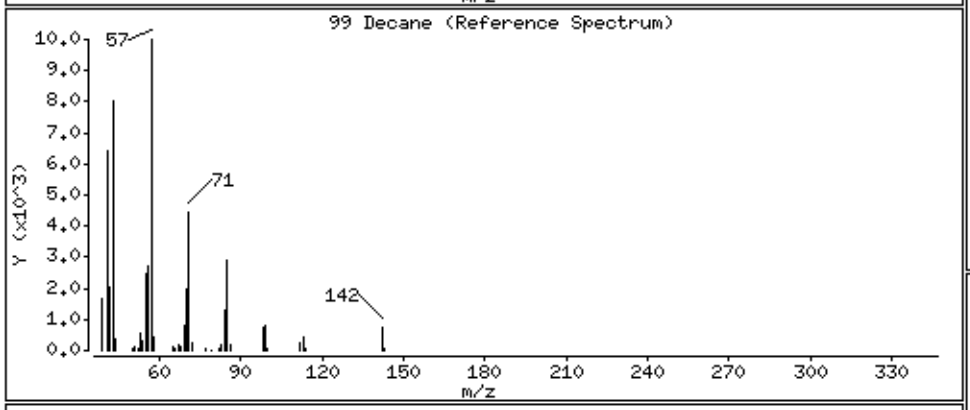
Column diameter: 0.32

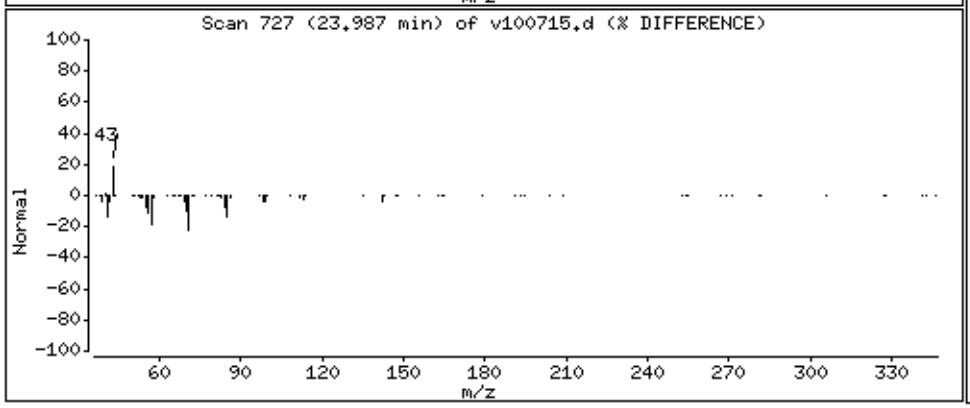
99 Decane

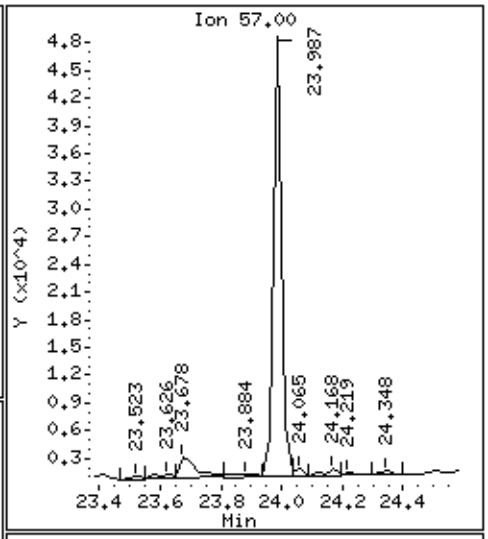
Concentration: 0.8970 PPBV

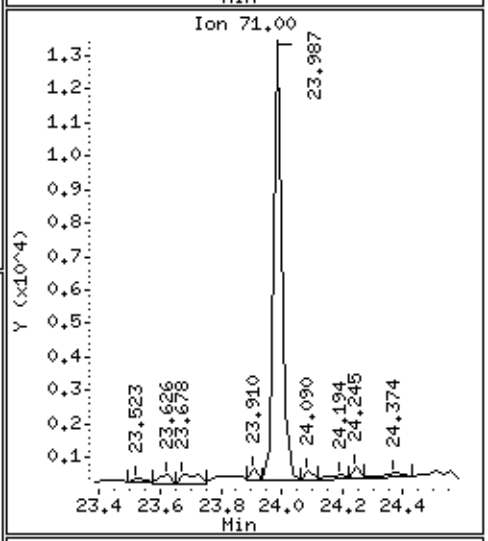


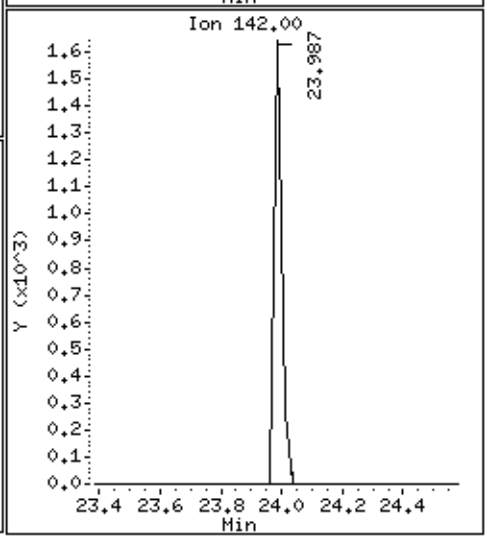



Data File: /chem/msdv.i/07Oct2014.b/v100715.d



Date : 08-OCT-2014 07:48

Client ID: ICV

Instrument: msdv.i

Sample Info: 50mL # 2677-190

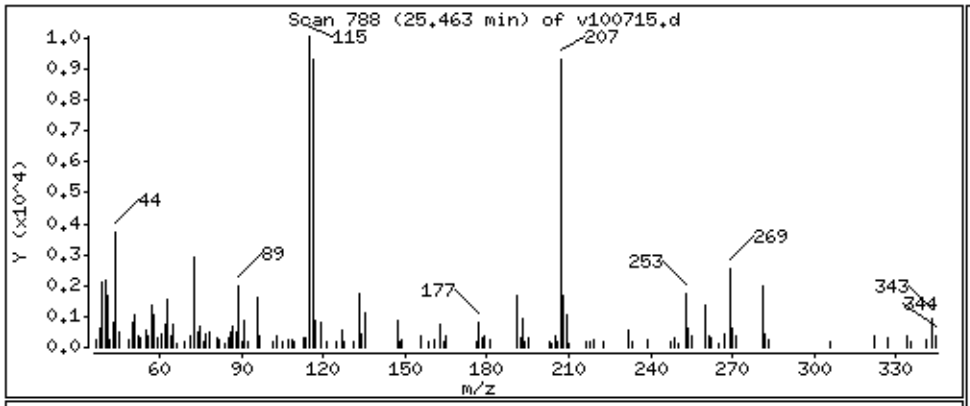
Operator: act

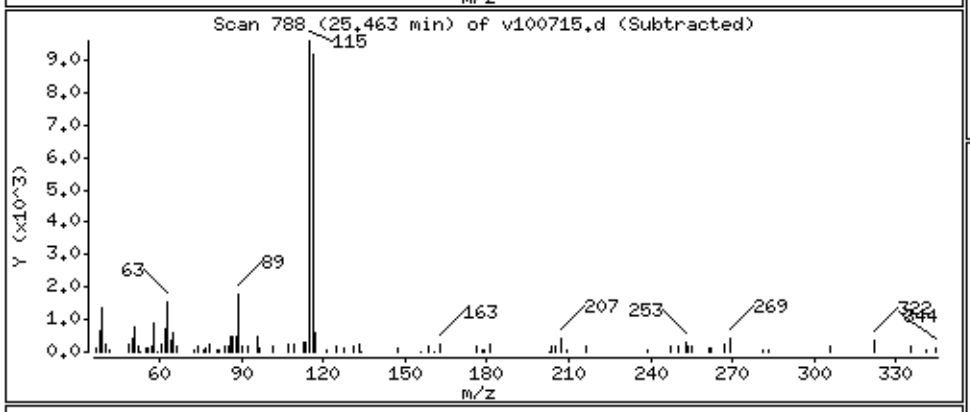
Column phase: RTx-624

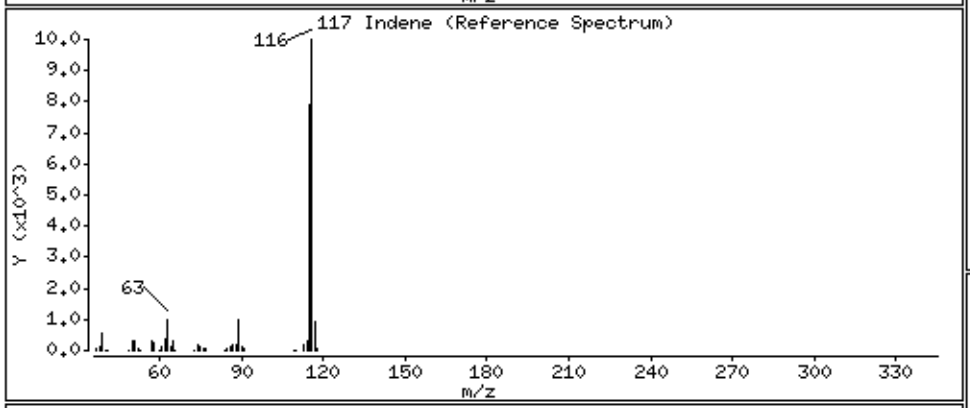
Column diameter: 0.32

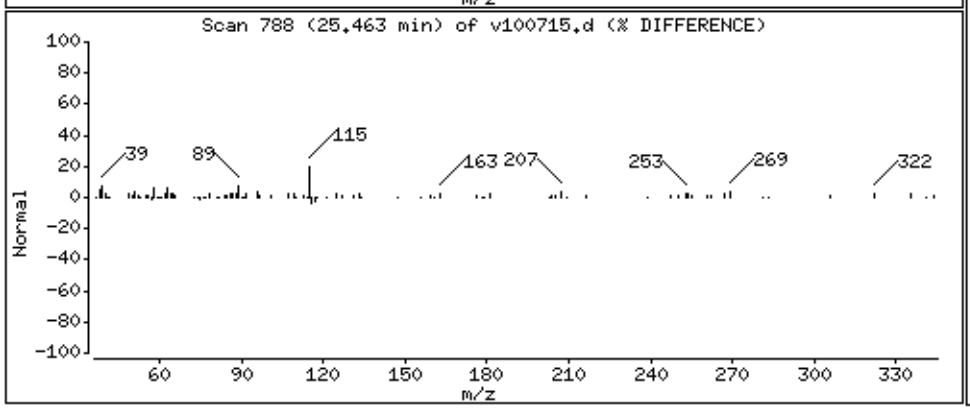
117 Indene

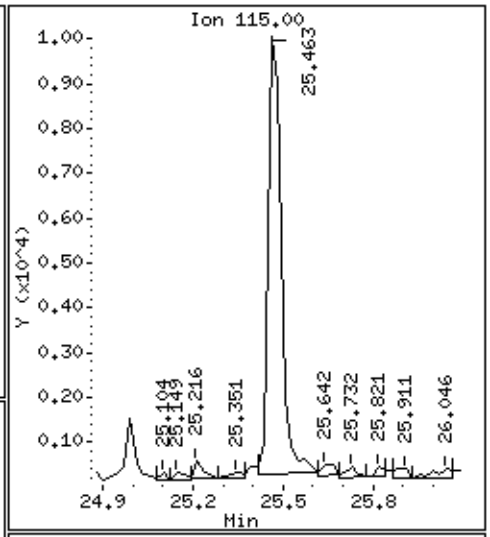
Concentration: 0.6498 PPBV

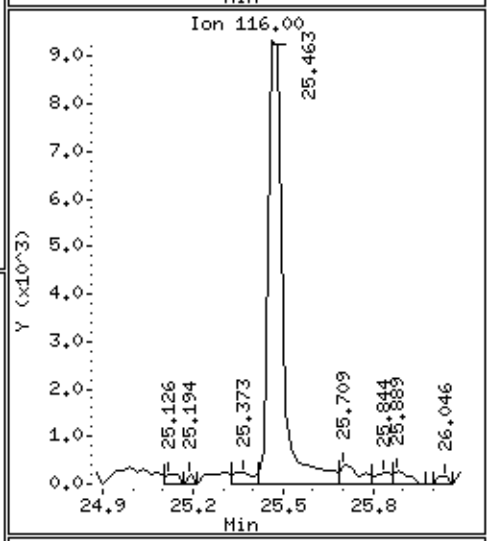


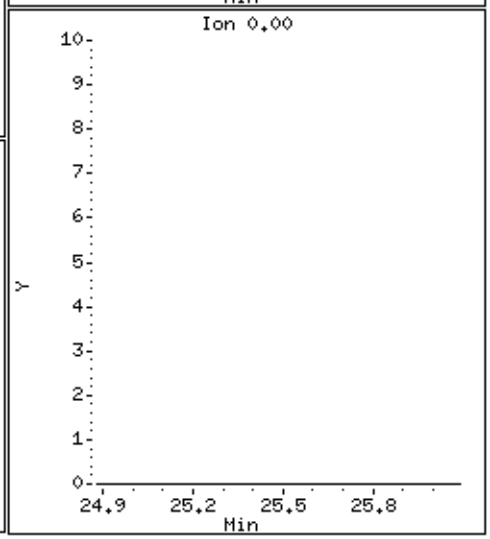



Data File: /chem/msdv.i/07Oct2014.b/v100715.d



Date : 08-OCT-2014 07:48

Client ID: ICV

Instrument: msdv.i

Sample Info: 50mL # 2677-190

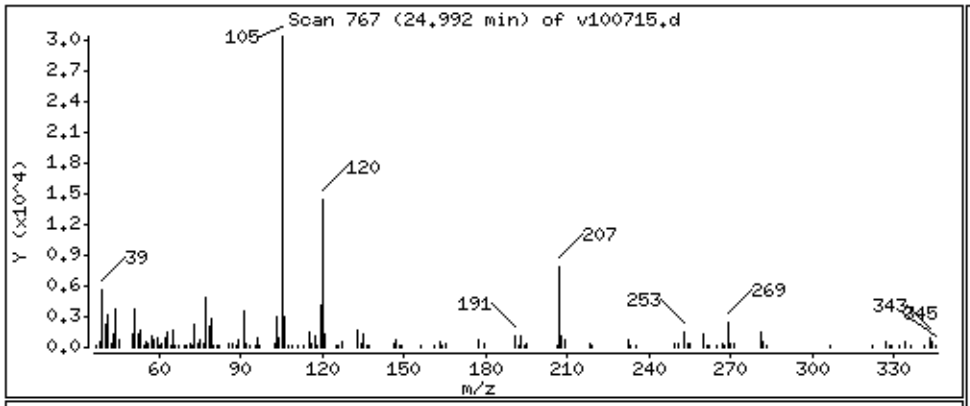
Operator: act

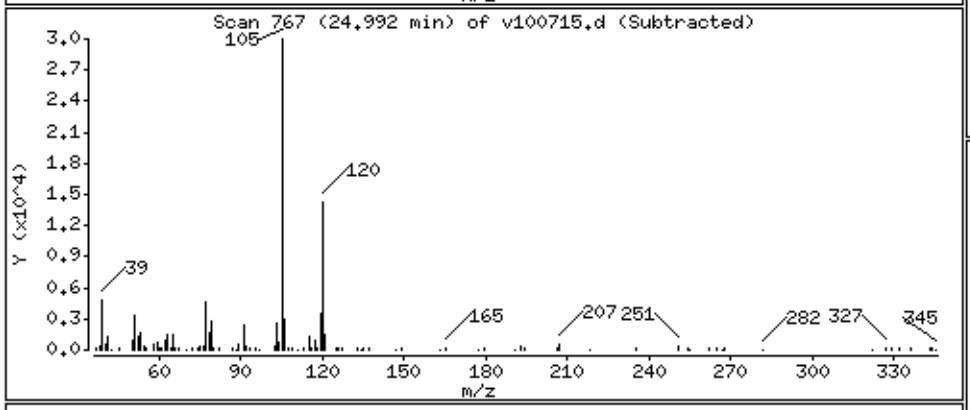
Column phase: RTx-624

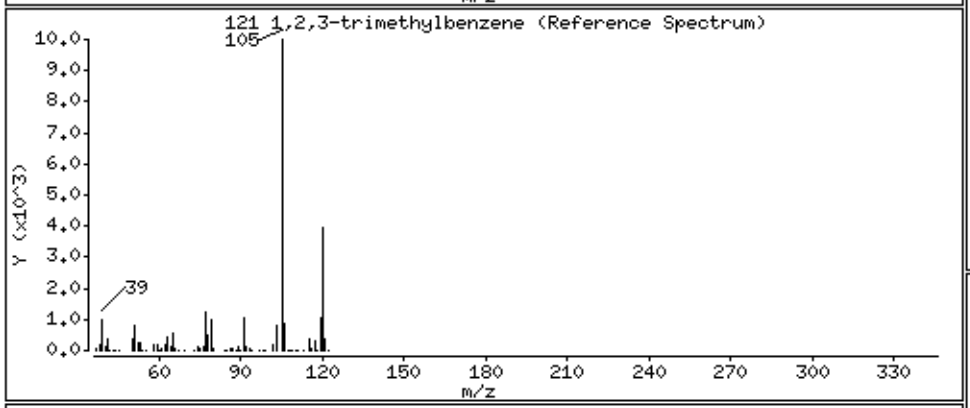
Column diameter: 0.32

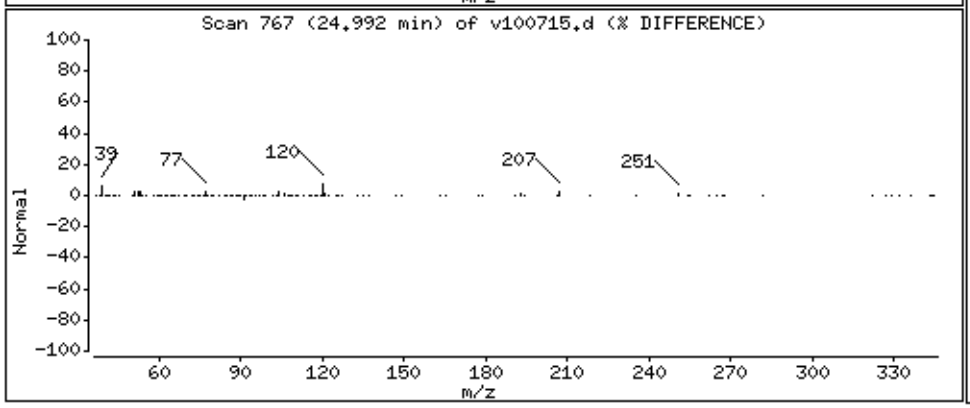
121 1,2,3-trimethylbenzene

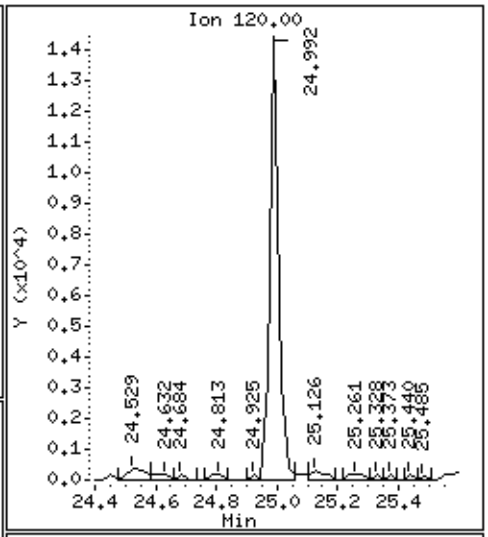
Concentration: 1.080 PPBV

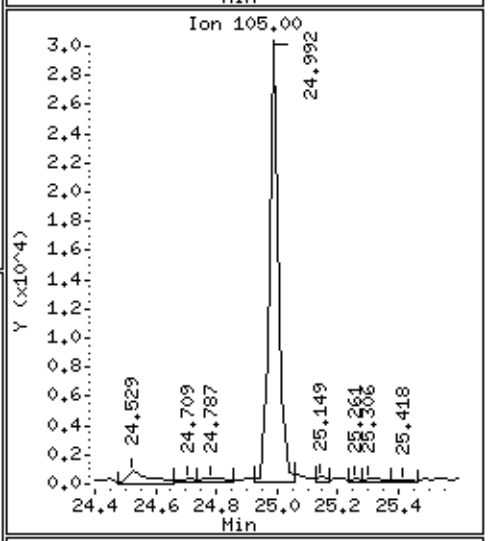


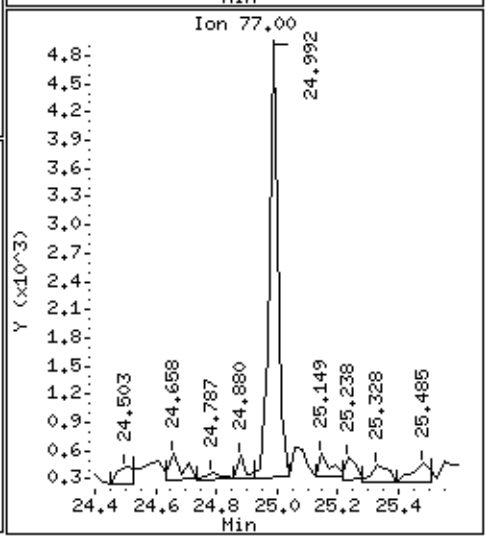



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100618.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 07-OCT-2014 10:14
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 2677-277
Misc Info : 0.05ppbv (0.05ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 07-OCT-2014 10:14 Cal File: v100618.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level05.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.934 (1.000) | 130 | 107009 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 81678 | | | 47.54- 107.54 | 76.33 |
| 15.934 | 15.934 (1.000) | 49 | 253921 | | | 218.45- 278.45 | 237.29 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 468033 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 74384 | | | 0.00- 46.16 | 15.89 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 344671 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 202038 | | | 29.12- 89.12 | 58.62 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 198521 | 5.00000 | 5.055 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 96724 | | | 28.37- 88.37 | 48.72 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 435074 | 5.00000 | 4.835 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 51140 | | | 0.00- 41.90 | 11.75 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    280006                    33.85-  93.85    64.36
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    138628 5.00000    4.677  70.00- 130.00   100.00
 23.704  23.704 (1.067)    95    175182                   99.95- 159.95   126.37
 23.704  23.704 (1.067)   176    130329                   67.64- 127.64    94.01
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.184  11.184 (0.702)   101      5189 0.05000  0.05028  70.00- 130.00   100.00(a)
 11.184  11.184 (0.702)   103      3977                   36.54-  96.54    76.64
-------------------------------------------------------------------------------
   28 Freon 113                                     CAS #: 76-13-1
 12.569  12.569 (0.789)   151      3601 0.05000  0.05797  70.00- 130.00   100.00(a)
 12.569  12.569 (0.789)   153      1872                   33.10-  93.10    51.99
 12.569  12.569 (0.789)   101      3879                   96.37- 156.37   107.72
-------------------------------------------------------------------------------
   58 1,1,1-Trichloroethane                         CAS #: 71-55-6
 16.242  16.242 (1.019)    97      5115 0.05000  0.05432  70.00- 130.00   100.00(a)
 16.242  16.242 (1.019)    99      2955                   32.16-  92.16    57.77
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                          CAS #: 56-23-5
 16.458  16.458 (1.033)   119      4927 0.05000  0.05455  70.00- 130.00   100.00(a)
 16.458  16.458 (1.033)   117      4309                   69.67- 129.67    87.46
-------------------------------------------------------------------------------
   72 Trichloroethene                               CAS #: 79-01-6
 17.717  17.717 (1.024)   130      2749 0.05000  0.04421  70.00- 130.00   100.00(a)
 17.717  17.717 (1.024)    95      3214                   71.16- 131.16   116.92
 17.717  17.717 (1.024)    97      1607                   33.04-  93.04    58.46
-------------------------------------------------------------------------------
   77 Bromodichloromethane                          CAS #: 75-27-4
 18.568  18.568 (1.073)    83      4822 0.05000  0.04597  70.00- 130.00   100.00(a)
 18.568  18.568 (1.073)    85      2809                   32.12-  92.12    58.25
-------------------------------------------------------------------------------
   84 1,1,2-Trichloroethane                         CAS #: 79-00-5
 20.758  20.758 (0.935)    97      2245 0.05000  0.04138  70.00- 130.00   100.00(a)
 20.758  20.758 (0.935)    99      1633                   32.13-  92.13    72.74
 20.758  20.758 (0.935)    83      2124                   57.82- 117.82    94.61
-------------------------------------------------------------------------------
   86 Tetrachloroethene                             CAS #: 127-18-4
 20.937  20.937 (0.943)   166      3600 0.05000  0.05132  70.00- 130.00   100.00(a)
 20.937  20.937 (0.943)   129      2563                   47.04- 107.04    71.19
 20.901  20.901 (0.941)   131      2851                   46.95- 106.95    79.19
-------------------------------------------------------------------------------
   89 Dibromochloromethane                          CAS #: 124-48-1
 21.367  21.367 (0.962)   129      5336 0.05000  0.05284  70.00- 130.00   100.00(a)
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 89 Dibromochloromethane (continued) | | | | | | | |
| 21.367 | 21.367 (0.962) | 127 | 4556 | | | 50.38- 110.38 | 85.38 |
| 90 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 21.583 | 21.583 (0.972) | 107 | 4518 | 0.05000 | 0.05346 | 70.00- 130.00 | 100.00(a) |
| 21.583 | 21.583 (0.972) | 109 | 3913 | | | 62.69- 122.69 | 86.61 |
| 102 Bromoform | | | | | CAS #: 75-25-2 | | |
| 23.331 | 23.331 (1.051) | 173 | 4495 | 0.05000 | 0.05252 | 70.00- 130.00 | 100.00(a) |
| 23.331 | 23.331 (1.051) | 171 | 1917 | | | 20.40- 80.40 | 42.65 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 5845 | 0.05000 | 0.05590 | 70.00- 130.00 | 100.00(a) |
| 23.833 | 23.833 (1.073) | 85 | 3752 | | | 34.81- 94.81 | 64.19 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 3486 | 0.05000 | 0.06031 | 70.00- 130.00 | 100.00(a) |
| 24.902 | 24.902 (1.121) | 148 | 2645 | | | 38.48- 98.48 | 75.87 |
| 24.902 | 24.902 (1.121) | 111 | 1129 | | | 10.49- 70.49 | 32.39 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 3480 | 0.05000 | 0.06404 | 70.00- 130.00 | 100.00(a) |
| 24.992 | 24.992 (1.125) | 148 | 2759 | | | 38.92- 98.92 | 79.28 |
| 25.015 | 25.015 (1.127) | 111 | 1389 | | | 11.61- 71.61 | 39.91 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.418 | 25.418 (1.145) | 146 | 3353 | 0.05000 | 0.06252 | 70.00- 130.00 | 100.00(a) |
| 25.396 | 25.396 (1.144) | 148 | 1888 | | | 36.09- 96.09 | 56.31 |
| 25.396 | 25.396 (1.144) | 111 | 1419 | | | 13.38- 73.38 | 42.32 |
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 3088 | 0.05000 | 0.07846 | 70.00- 130.00 | 100.00(a) |
| 27.099 | 27.099 (1.220) | 182 | 2767 | | | 64.14- 124.14 | 89.60 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.167 (1.223) | 225 | 2377 | 0.05000 | 0.07222 | 70.00- 130.00 | 100.00(a) |
| 27.167 | 27.167 (1.223) | 223 | 2492 | | | 44.27- 104.27 | 104.84 |

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100618.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 107009 | -14.46 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 468033 | -6.06 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 344671 | -15.19 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100618.d



Date : 07-OCT-2014 10:14

Client ID: Level 5

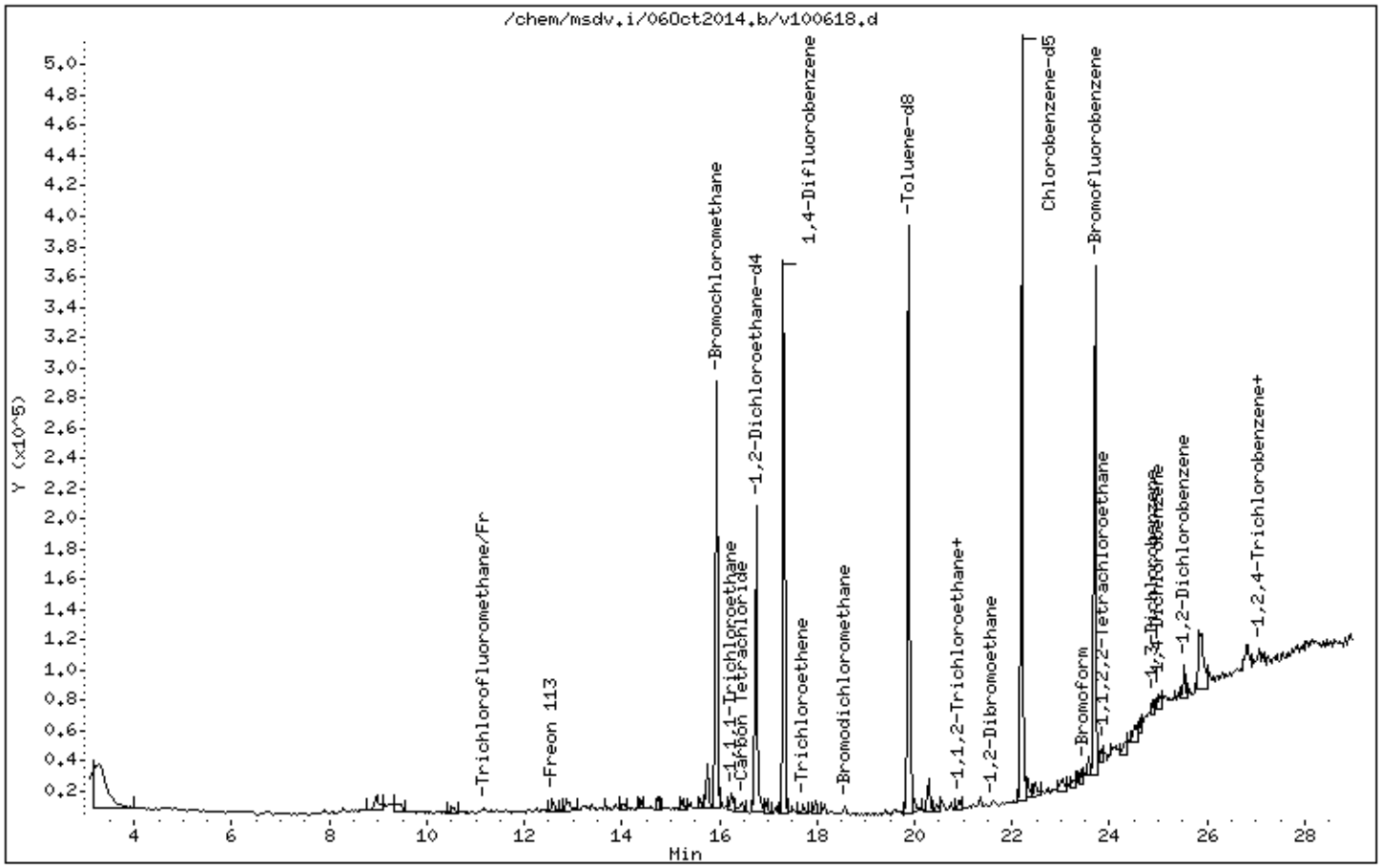
Instrument: msdv.i

Sample Info: 250mL# 2677-277

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100607.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 06-OCT-2014 15:09
Operator : ef Inst ID: msdv.i
Smp Info : 25mL #2677-278
Misc Info : 0.1ppbv (1.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 15:09 Cal File: v100607.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level#1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 115968 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 91563 | | | 47.54- 107.54 | 78.96 |
| 15.933 | 15.933 (1.000) | 49 | 284181 | | | 218.45- 278.45 | 245.05 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 490020 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 78963 | | | 0.00- 46.16 | 16.11 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 360199 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 215619 | | | 29.12- 89.12 | 59.86 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 200829 | 5.00000 | 4.719 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 100811 | | | 28.37- 88.37 | 50.20 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 459250 | 5.00000 | 4.875 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 53821 | | | 0.00- 41.90 | 11.72 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    292128                    33.85-  93.85    63.61
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    155734 5.00000    5.027  70.00- 130.00   100.00
 23.704  23.704 (1.067)    95    198893                   99.95- 159.95   127.71
 23.704  23.704 (1.067)   176    153441                   67.64- 127.64    98.53
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.713   6.713 (0.421)   135      8573 0.10000   0.1105  70.00- 130.00   100.00
  6.713   6.713 (0.421)   137      2095                    0.53-  60.53    24.44
  6.713   6.713 (0.421)    85     13021                  121.37- 181.37   151.88
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.052   7.052 (0.443)    50      8967 0.10000   0.1370  70.00- 130.00   100.00
  7.052   7.052 (0.443)    52      2897                    1.81-  61.81    32.31
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62      5054 0.10000   0.1034  70.00- 130.00   100.00
  8.040   8.040 (0.505)    64      1084                    0.00-  58.65    21.45
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54      5029 0.10000   0.1050  70.00- 130.00   100.00
  8.257   8.257 (0.518)    39      7344                  107.15- 167.15   146.03
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94      2744 0.10000  0.09161  70.00- 130.00   100.00(a)
  9.834   9.834 (0.617)    96      3952                   72.12- 132.12   144.02
-------------------------------------------------------------------------------
   20 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
 11.159  11.159 (0.700)   101     12490 0.10000   0.1117  70.00- 130.00   100.00
 11.184  11.184 (0.702)   103      8638                   36.54-  96.54    69.16
-------------------------------------------------------------------------------
   28 Freon 113                                     CAS #: 76-13-1
 12.596  12.596 (0.791)   151      7074 0.10000   0.1051  70.00- 130.00   100.00
 12.568  12.568 (0.789)   153      4800                   33.10-  93.10    67.85
 12.568  12.568 (0.789)   101      9759                   96.37- 156.37   137.96
-------------------------------------------------------------------------------
   30 1,1-Dichloroethene                            CAS #: 75-35-4
 12.568  12.568 (0.789)    98      2587 0.10000   0.1035  70.00- 130.00   100.00
 12.568  12.568 (0.789)    61      9752                  320.65- 380.65   376.96
 12.568  12.568 (0.789)    96      5005                  134.30- 194.30   193.47
-------------------------------------------------------------------------------
   35 3-Chloroprene                                 CAS #: 107-05-1
 13.392  13.392 (0.841)    76      1554 0.10000   0.1013  70.00- 130.00   100.00(a)
 13.392  13.392 (0.841)    41      8183                  547.03- 607.03   526.58
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.667 | 13.667 (0.858) | 84 | 4091 | 0.10000 | 0.1160 | 70.00- 130.00 | 100.00(a) |
| 13.667 | 13.667 (0.858) | 49 | 9670 | | | 212.37- 272.37 | 236.37 |
| 13.667 | 13.667 (0.858) | 51 | 3116 | | | 43.31- 103.31 | 76.17 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 14.024 | 14.024 (0.880) | 73 | 14438 | 0.10000 | 0.1141 | 70.00- 130.00 | 100.00 |
| 14.024 | 14.024 (0.880) | 57 | 5180 | | | 2.99- 62.99 | 35.88 |
| 13.997 | 13.997 (0.878) | 41 | 5449 | | | 12.12- 72.12 | 37.74 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 1938 | 0.10000 | 0.08196 | 70.00- 130.00 | 100.00(a) |
| 14.051 | 14.051 (0.882) | 61 | 8404 | | | 293.73- 353.73 | 433.64 |
| 14.079 | 14.079 (0.884) | 96 | 5772 | | | 146.88- 206.88 | 297.83 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.408 | 14.408 (0.904) | 57 | 11530 | 0.10000 | 0.1139 | 70.00- 130.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 10341 | | | 57.65- 117.65 | 89.69 |
| 14.381 | 14.381 (0.903) | 86 | 1248 | | | 0.00- 40.67 | 10.82 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 10957 | 0.10000 | 0.1116 | 70.00- 130.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 3579 | | | 0.37- 60.37 | 32.66 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 2859 | 0.10000 | 0.09111 | 70.00- 130.00 | 100.00(a) |
| 15.592 | 15.592 (0.979) | 61 | 8854 | | | 248.69- 308.69 | 309.69 |
| 15.592 | 15.592 (0.979) | 96 | 5481 | | | 132.55- 192.55 | 191.71 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 16.026 | 16.026 (1.006) | 83 | 11005 | 0.10000 | 0.1126 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 6581 | | | 33.33- 93.33 | 59.80 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 11466 | 0.10000 | 0.1124 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 6484 | | | 32.16- 92.16 | 56.55 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.273 | 16.273 (1.021) | 84 | 6187 | 0.10000 | 0.1006 | 70.00- 130.00 | 100.00 |
| 16.273 | 16.273 (1.021) | 56 | 13537 | | | 157.43- 217.43 | 218.80 |
| 16.273 | 16.273 (1.021) | 41 | 9348 | | | 105.99- 165.99 | 151.09 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.457 | 16.457 (1.033) | 119 | 9879 | 0.10000 | 0.1009 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.457 (1.033) | 117 | 9445 | | | 69.67- 129.67 | 95.61 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 12702 | 0.10000 | 0.1186 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 34213 | | | 258.69- 318.69 | 269.35 |
| 16.728 | 16.728 (1.050) | 41 | 12797 | | | 79.91- 139.91 | 100.75 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 16007 | 0.10000 | 0.1107 | 70.00- 130.00 | 100.00 |
| 16.783 | 16.783 (0.970) | 77 | 3772 | | | 0.00- 53.73 | 23.56 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 9124 | 0.10000 | 0.1041 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 3119 | | | 1.11- 61.11 | 34.18 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 6047 | 0.10000 | 0.09702 | 70.00- 130.00 | 100.00(a) |
| 16.975 | 16.975 (0.981) | 100 | 1070 | | | 0.00- 51.27 | 17.69 |
| 16.975 | 16.975 (0.981) | 43 | 18680 | | | 235.24- 295.24 | 308.91 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.716 | 17.716 (1.024) | 130 | 6374 | 0.10000 | 0.09792 | 70.00- 130.00 | 100.00(a) |
| 17.716 | 17.716 (1.024) | 95 | 6104 | | | 71.16- 131.16 | 95.76 |
| 17.716 | 17.716 (1.024) | 97 | 4359 | | | 33.04- 93.04 | 68.39 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 6441 | 0.10000 | 0.09710 | 70.00- 130.00 | 100.00(a) |
| 18.156 | 18.156 (1.049) | 62 | 5323 | | | 45.17- 105.17 | 82.64 |
| 18.156 | 18.156 (1.049) | 41 | 5741 | | | 59.65- 119.65 | 89.13 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.293 | 18.293 (1.057) | 88 | 3183 | 0.10000 | 0.09548 | 70.00- 130.00 | 100.00(a) |
| 18.293 | 18.293 (1.057) | 58 | 3345 | | | 72.13- 132.13 | 105.09 |
| 18.266 | 18.266 (1.056) | 57 | 1252 | | | 4.41- 64.41 | 39.33 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 11249 | 0.10000 | 0.1024 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 6178 | | | 32.12- 92.12 | 54.92 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 6421 | 0.10000 | 0.08555 | 70.00- 130.00 | 100.00(a) |
| 19.408 | 19.408 (1.122) | 77 | 1887 | | | 1.25- 61.25 | 29.39 |
| 19.408 | 19.408 (1.122) | 39 | 7318 | | | 71.17- 131.17 | 113.97 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.632 | 19.632 (1.135) | 43 | 16801 | 0.10000 | 0.08231 | 70.00- 130.00 | 100.00(a) |
| 19.632 | 19.632 (1.135) | 58 | 4591 | | | 0.00- 57.24 | 27.33 |
| 19.610 | 19.610 (1.133) | 85 | 1156 | | | 0.00- 38.20 | 6.88 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   81 Toluene                                          CAS #: 108-88-3
 20.013  20.013 (1.157)    91     16019 0.10000   0.1004  70.00- 130.00   100.00
 19.991  19.991 (1.155)    92     10194                   28.60-  88.60    63.64
-------------------------------------------------------------------------------
   82 trans-1,3-Dichloropropene                        CAS #: 10061-02-6
 20.435  20.435 (0.920)    75      6737 0.10000  0.09074  70.00- 130.00   100.00(a)
 20.435  20.435 (0.920)    77      3224                    5.48-  65.48    47.86
 20.435  20.435 (0.920)    39      7346                   63.15- 123.15   109.04
-------------------------------------------------------------------------------
   84 1,1,2-Trichloroethane                            CAS #: 79-00-5
 20.757  20.757 (0.935)    97      6541 0.10000   0.1154  70.00- 130.00   100.00
 20.757  20.757 (0.935)    99      3295                   32.13-  92.13    50.37
 20.757  20.757 (0.935)    83      5458                   57.82- 117.82    83.44
-------------------------------------------------------------------------------
   86 Tetrachloroethene                                CAS #: 127-18-4
 20.937  20.937 (0.943)   166      7487 0.10000   0.1021  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129      6017                   47.04- 107.04    80.37
 20.901  20.901 (0.941)   131      5740                   46.95- 106.95    76.67
-------------------------------------------------------------------------------
   89 Dibromochloromethane                             CAS #: 124-48-1
 21.367  21.367 (0.962)   129     10304 0.10000  0.09764  70.00- 130.00   100.00(a)
 21.367  21.367 (0.962)   127      9402                   50.38- 110.38    91.25
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                                CAS #: 106-93-4
 21.583  21.583 (0.972)   107      8504 0.10000  0.09628  70.00- 130.00   100.00(a)
 21.583  21.583 (0.972)   109      8297                   62.69- 122.69    97.57
-------------------------------------------------------------------------------
   93 Chlorobenzene                                    CAS #: 108-90-7
 22.233  22.233 (1.001)   112     12263 0.10000   0.1037  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114      3968                    1.62-  61.62    32.36
 22.233  22.233 (1.001)    77     13142                   38.66-  98.66   107.17
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                    CAS #: 100-41-4
 22.315  22.315 (1.005)   106      5210 0.10000  0.09813  70.00- 130.00   100.00(a)
 22.315  22.315 (1.005)    91     18742                  292.36- 352.36   359.73
-------------------------------------------------------------------------------
   96 m,p-Xylene                                       CAS #: 108-38-3
 22.480  22.480 (1.012)   106      6097 0.10000   0.1165  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91     10857                  164.15- 224.15   178.07
-------------------------------------------------------------------------------
  100 o-Xylene                                         CAS #: 95-47-6
 23.001  23.001 (1.036)   106      4617 0.10000  0.09478  70.00- 130.00   100.00(a)
 23.001  23.001 (1.036)    91     11805                  186.63- 246.63   255.69
-------------------------------------------------------------------------------
  101 Styrene                                          CAS #: 100-42-5
 23.029  23.029 (1.037)   104      6039 0.10000  0.08474  70.00- 130.00   100.00(a)
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 101 Styrene (continued) | | | | | | | |
| 23.029 | 23.029 (1.037) | 78 | 6101 | | | 28.70- 88.70 | 101.03 |
| 102 Bromoform | | | | | CAS #: 75-25-2 | | |
| 23.331 | 23.331 (1.051) | 173 | 8489 | 0.10000 | 0.09491 | 70.00- 130.00 | 100.00(a) |
| 23.331 | 23.331 (1.051) | 171 | 4167 | | | 20.40- 80.40 | 49.09 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 14605 | 0.10000 | 0.1027 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 4216 | | | 0.00- 57.73 | 28.87 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 11215 | 0.10000 | 0.1026 | 70.00- 130.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 8594 | | | 34.81- 94.81 | 76.63 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 14714 | 0.10000 | 0.1166 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 3587 | | | 0.00- 53.83 | 24.38 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 12253 | 0.10000 | 0.1324 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 3341 | | | 0.18- 60.18 | 27.27 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 9208 | 0.10000 | 0.1191 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 5492 | | | 20.44- 80.44 | 59.64 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 9693 | 0.10000 | 0.1548 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 6145 | | | 19.27- 79.27 | 63.40 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 6422 | 0.10000 | 0.1063 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 6008 | | | 38.48- 98.48 | 93.55 |
| 24.902 | 24.902 (1.121) | 111 | 2882 | | | 10.49- 70.49 | 44.88 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 6461 | 0.10000 | 0.1138 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 6159 | | | 38.92- 98.92 | 95.33 |
| 24.992 | 24.992 (1.125) | 111 | 3734 | | | 11.61- 71.61 | 57.79 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.395 (1.144) | 146 | 5699 | 0.10000 | 0.1017 | 70.00- 130.00 | 100.00 |
| 25.395 | 25.395 (1.144) | 148 | 5396 | | | 36.09- 96.09 | 94.68 |
| 25.395 | 25.395 (1.144) | 111 | 3100 | | | 13.38- 73.38 | 54.40 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 | (1.219) | 180 | 6265 | 0.10000 | 0.1523 | 70.00- 130.00 | 100.00(a) |
| 27.077 | 27.077 | (1.219) | 182 | 5534 | | | 64.14- 124.14 | 88.33 |
| 132 Hexachlorobutadiene | | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 | (1.223) | 225 | 4160 | 0.10000 | 0.1209 | 70.00- 130.00 | 100.00(a) |
| 27.166 | 27.166 | (1.223) | 223 | 4860 | | | 44.27- 104.27 | 116.83 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100607.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 115968 | -7.30 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 490020 | -1.64 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 360199 | -11.37 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100607.d



Date : 06-OCT-2014 15:09

Client ID: Level 6

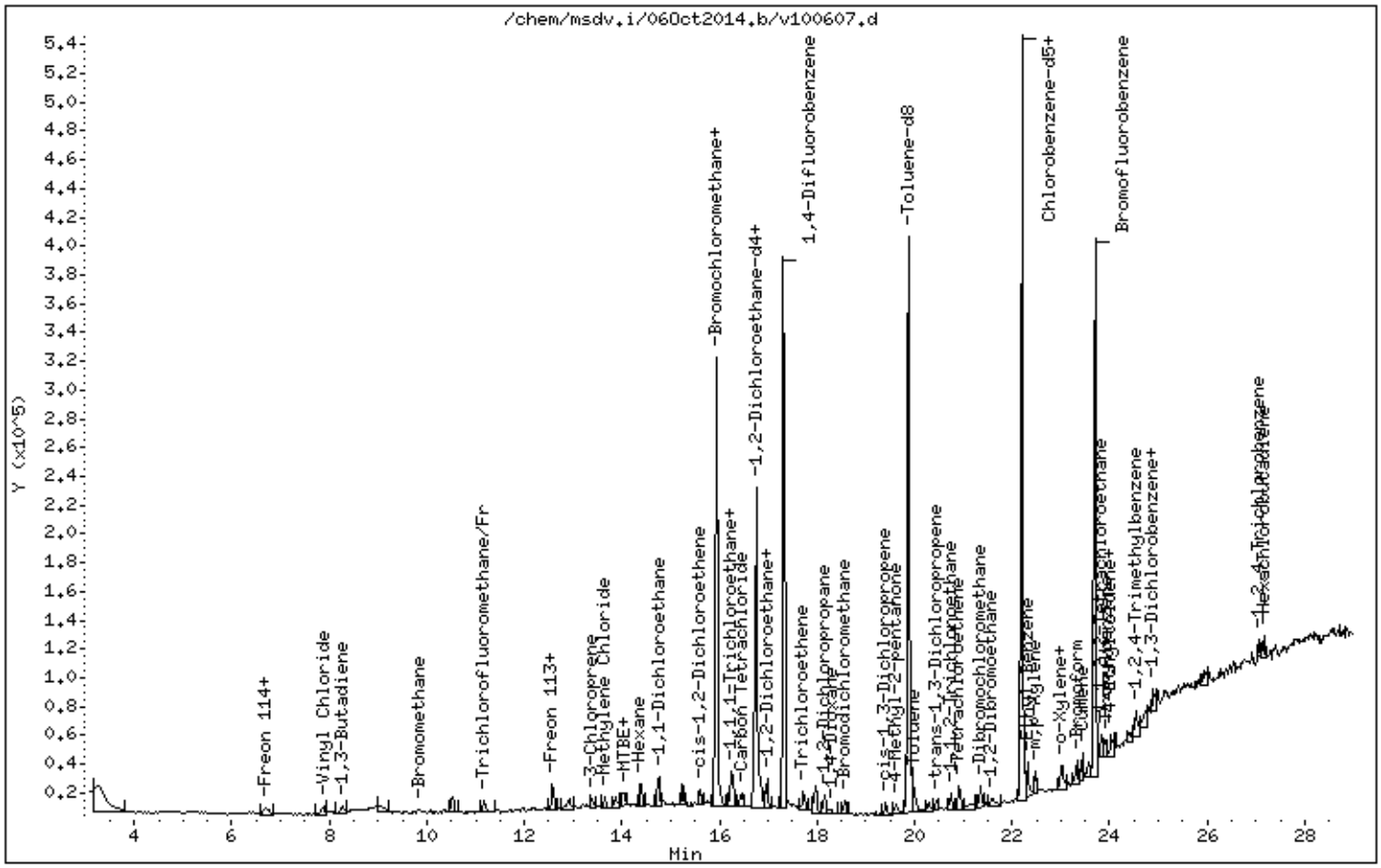
Instrument: msdv.i

Sample Info: 25mL #2677-278

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem1/msdv.i/22Oct2014.b/v102206.d
Lab Smp Id: ICAL Level 7 Client Smp ID: ICAL Level 7
Inj Date : 22-OCT-2014 14:20
Operator : ef Inst ID: msdv.i
Smp Info : 25mL# 2689-31
Misc Info : 0.5ppbv (5.0ppbv) Combo
Comment : Low Level GC-MS
Method : /chem1/msdv.i/22Oct2014.b/v14l1006c.m
Meth Date : 22-Oct-2014 20:02 snguyen Quant Type: ISTD
Cal Date : 22-OCT-2014 14:20 Cal File: v102206.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT7-AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.934 (1.000) | 130 | 91571 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 71230 | | | 47.58- 107.58 | 77.79 |
| 15.934 | 15.934 (1.000) | 49 | 207118 | | | 212.40- 272.40 | 226.18 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 389869 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 62069 | | | 0.00- 46.08 | 15.92 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 310124 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 181096 | | | 28.82- 88.82 | 58.39 |
| 13 Vinyl Bromide | | | | | | CAS #: 593-60-2 | |
| 10.967 | 10.967 (0.688) | 106 | 5926 | 0.50000 | 0.5189 | 70.00- 130.00 | 100.00 |
| 10.967 | 10.967 (0.688) | 108 | 6332 | | | 69.86- 129.86 | 106.85 |
| 15 1-Pentene | | | | | | CAS #: 109-67-1 | |
| 11.256 | 11.256 (0.706) | 55 | 4612 | 0.50000 | 0.5048 | 70.00- 130.00 | 100.00 |
| 11.256 | 11.256 (0.706) | 42 | 8151 | | | 142.41- 202.41 | 176.73 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 19 Diethyl Ether | | | | | CAS #: 60-29-7 | | |
| 12.102 | 12.102 (0.760) | 74 | 2607 | 0.50000 | 0.5210 | 70.00- 130.00 | 100.00(T) |
| 12.102 | 12.102 (0.760) | 59 | 4931 | | | 162.36- 222.36 | 189.14 |
| 0.000 | 1.000 (0.000) | 31 | 0 | | | 0.00- 30.00 | 0.00 |
| 26 Acetonitrile | | | | | CAS #: 75-05-8 | | |
| 13.502 | 13.502 (0.847) | 41 | 16156 | 0.50000 | 0.4233 | 70.00- 130.00 | 100.00(a) |
| 13.502 | 13.502 (0.847) | 40 | 7456 | | | 15.69- 75.69 | 46.15 |
| 13.502 | 13.502 (0.847) | 39 | 3210 | | | 25.67- 85.67 | 19.87 |
| 32 Acrylonitrile | | | | | CAS #: 107-13-1 | | |
| 14.189 | 14.189 (0.890) | 53 | 9046 | 0.50000 | 0.4534 | 70.00- 130.00 | 100.00(a) |
| 14.189 | 14.189 (0.890) | 52 | 8031 | | | 54.38- 114.38 | 88.78 |
| 41 1-Hexene | | | | | CAS #: 592-41-6 | | |
| 14.271 | 14.271 (0.896) | 55 | 3938 | 0.50000 | 0.5873 | 70.00- 130.00 | 100.00 |
| 14.271 | 14.271 (0.896) | 41 | 6252 | | | 152.85- 212.85 | 158.76 |
| 14.271 | 14.271 (0.896) | 84 | 833 | | | 0.00- 53.17 | 21.15 |
| 44 Methyl Acrylate | | | | | CAS #: 96-33-3 | | |
| 15.696 | 15.696 (0.985) | 55 | 22473 | 0.50000 | 0.4732 | 70.00- 130.00 | 100.00(a) |
| 15.696 | 15.696 (0.985) | 85 | 1580 | | | 0.00- 38.30 | 7.03 |
| 15.675 | 15.675 (0.984) | 58 | 1608 | | | 0.00- 37.05 | 7.16 |
| 60 Ethyl Acrylate | | | | | CAS #: 140-88-5 | | |
| 17.772 | 17.772 (1.115) | 99 | 907 | 0.50000 | 0.3508 | 70.00- 130.00 | 100.00(a) |
| 17.772 | 17.772 (1.115) | 45 | 3934 | | | 301.40- 361.40 | 433.74 |
| 17.772 | 17.772 (1.115) | 55 | 29511 | | | 2545.61-2605.61 | 3253.69 |
| 62 2-Pentanone | | | | | CAS #: 107-87-9 | | |
| 17.964 | 17.964 (1.127) | 43 | 59984 | 0.50000 | 0.5074 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.127) | 58 | 3389 | | | 0.00- 35.77 | 5.65 |
| 17.964 | 17.964 (1.127) | 86 | 5225 | | | 0.00- 39.16 | 8.71 |
| 67 Methyl Methacrylate | | | | | CAS #: 80-62-6 | | |
| 18.156 | 18.156 (1.139) | 41 | 24823 | 0.50000 | 0.4966 | 70.00- 130.00 | 100.00(a) |
| 18.156 | 18.156 (1.139) | 69 | 9448 | | | 9.41- 69.41 | 38.06 |
| 18.156 | 18.156 (1.139) | 100 | 3881 | | | 0.00- 45.26 | 15.63 |
| 70 Dibromomethane | | | | | CAS #: 74-95-3 | | |
| 18.376 | 18.376 (0.828) | 174 | 8700 | 0.50000 | 0.4310 | 70.00- 130.00 | 100.00(a) |
| 18.376 | 18.376 (0.828) | 93 | 9656 | | | 69.31- 129.31 | 110.99 |
| 18.376 | 18.376 (0.828) | 95 | 7702 | | | 51.34- 111.34 | 88.53 |
| 104 Bis(2-Chloroethyl) Ether | | | | | CAS #: 111-44-4 | | |
| 24.761 | 24.761 (1.115) | 93 | 29396 | 0.50000 | 0.6693 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Bis(2-Chloroethyl) Ether (continued) | | | | | | | |
| 24.761 | 24.761 (1.115) | 95 | 9279 | | | 3.18- 63.18 | 31.57 |
| 24.761 | 24.761 (1.115) | 63 | 27622 | | | 65.44- 125.44 | 93.97 |
| 16 Pentane | | | | | CAS #: 109-66-0 | | |
| 11.401 | 11.401 (0.716) | 43 | 54622 | 0.50000 | 0.5284 | 70.00- 130.00 | 100.00 |
| 11.401 | 11.401 (0.716) | 57 | 6423 | | | 0.00- 41.87 | 11.76 |
| 11.401 | 11.401 (0.716) | 72 | 2981 | | | 0.00- 35.35 | 5.46 |
| 85 Nonane | | | | | CAS #: 111-84-2 | | |
| 22.343 | 22.343 (1.006) | 43 | 36024 | 0.50000 | 0.5356 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 57 | 24660 | | | 37.33- 97.33 | 68.45 |
| 22.343 | 22.343 (1.006) | 85 | 6274 | | | 0.00- 48.12 | 17.42 |
| 110 Undecane | | | | | CAS #: 1120-21-4 | | |
| 25.239 | 25.239 (1.137) | 57 | 62200 | 0.50000 | 0.4841 | 70.00- 130.00 | 100.00(a) |
| 25.239 | 25.239 (1.137) | 43 | 70047 | | | 81.76- 141.76 | 112.62 |
| 25.239 | 25.239 (1.137) | 85 | 13057 | | | 0.00- 50.32 | 20.99 |
| 125 Dodecane | | | | | CAS #: 112-40-3 | | |
| 26.315 | 26.315 (1.185) | 85 | 10543 | 0.50000 | 0.4343 | 70.00- 130.00 | 100.00(a) |
| 26.315 | 26.315 (1.185) | 57 | 41470 | | | 393.93- 453.93 | 393.34 |
| 26.315 | 26.315 (1.185) | 43 | 42756 | | | 409.24- 469.24 | 405.54 |
| 42 Ethyl Acetate | | | | | CAS #: 141-78-6 | | |
| 15.613 | 15.613 (0.980) | 70 | 4074 | 0.50000 | 0.4927 | 70.00- 130.00 | 100.00(a) |
| 15.592 | 15.592 (0.979) | 43 | 78511 | | | 1769.14-1829.14 | 1927.12 |
| 15.592 | 15.592 (0.979) | 61 | 12570 | | | 270.97- 330.97 | 308.54 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 22-Oct-2014 20:02

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v102206.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem1/msdv.i/22Oct2014.b/v14l1006c.m
Misc Info: 0.5ppbv (5.0ppbv) Combo

Calibration Date: 22-OCT-2014
Calibration Time: 10:10
Client Smp ID: ICAL Level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 54 Bromochloromethan | 91528 | 54917 | 128139 | 91571 | 0.05 |
| 71 1,4-Difluorobenze | 354906 | 212944 | 496868 | 389869 | 9.85 |
| 92 Chlorobenzene-d5 | 297425 | 178455 | 416395 | 310124 | 4.27 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/22Oct2014.b/v102206.d



Date : 22-OCT-2014 14:20

Client ID: ICAL Level 7

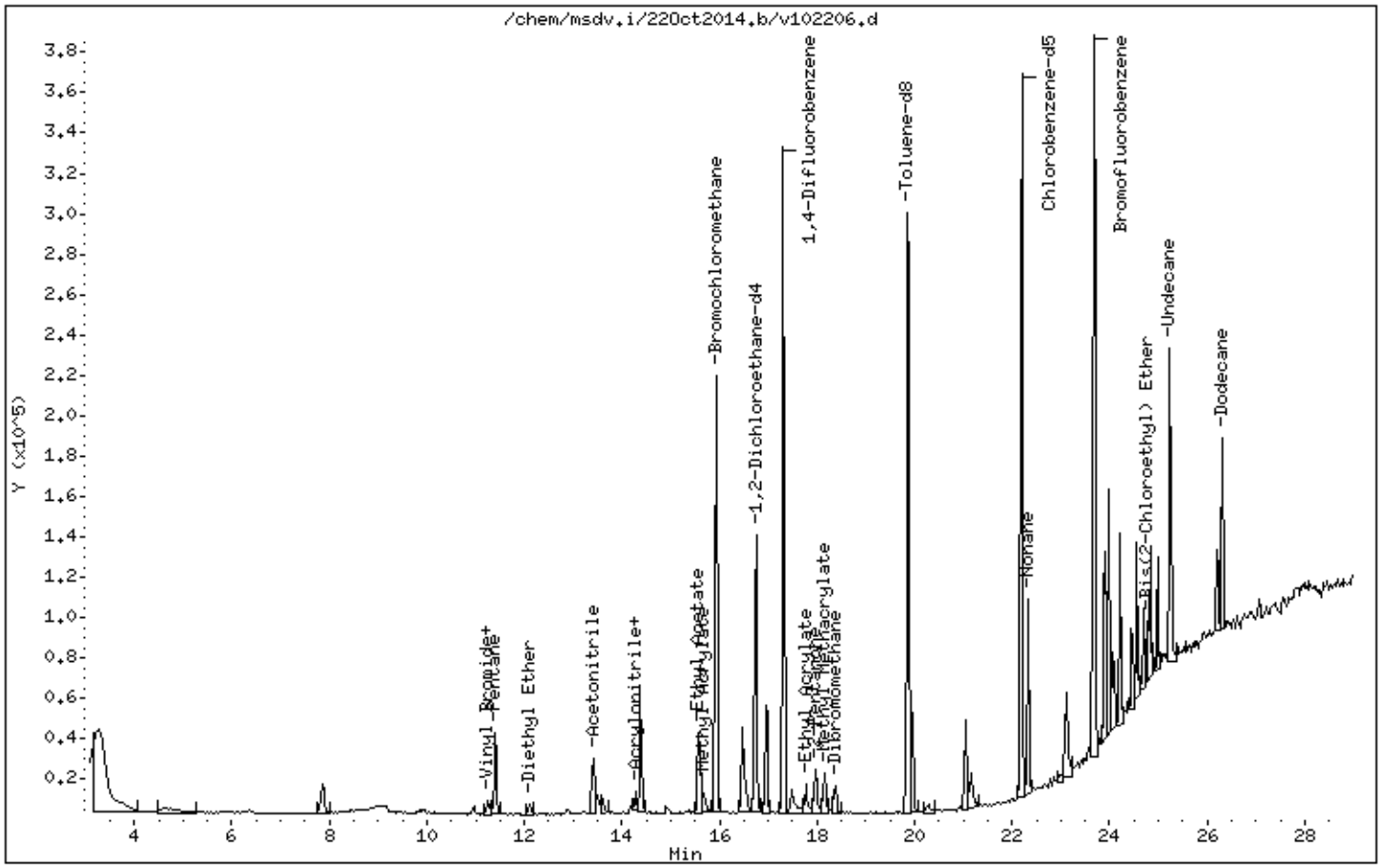
Instrument: msdv.i

Sample Info: 25mL# 2689-31

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101709.d
Lab Smp Id: ICAL Level 7
Inj Date : 17-OCT-2014 15:22
Operator : ef Inst ID: msdv.i
Smp Info : 25mL# 2687-10
Misc Info : 0.5ppbv (5.0ppbv) AT-1
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 15:22 Cal File: v101709.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.947 (1.000) | 130 | 99562 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.947 (1.000) | 128 | 79694 | | | 48.18- 108.18 | 80.04 |
| 15.933 | 15.916 (1.000) | 49 | 221716 | | | 210.53- 270.53 | 222.69 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.304 | 17.318 (1.000) | 114 | 436482 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.304 | 17.318 (1.000) | 88 | 68135 | | | 0.00- 45.98 | 15.61 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.219 (1.000) | 117 | 334790 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 189371 | | | 28.41- 88.41 | 56.56 |
| 1 Freon134a | | | | | | CAS #: 811-97-2 | |
| 4.447 | 4.560 (0.279) | 83 | 10775 | 0.50000 | 0.5150 | 70.00- 130.00 | 100.00 |
| 4.485 | 4.560 (0.281) | 69 | 9930 | | | 55.07- 115.07 | 92.16 |
| 2 Freon 152A | | | | | | CAS #: 75-37-6 | |
| 4.938 | 5.051 (0.310) | 65 | 6597 | 0.50000 | 0.5336 | 70.00- 130.00 | 100.00 |
| 4.938 | 5.051 (0.310) | 51 | 21571 | | | 272.07- 332.07 | 326.98 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 5.731 | 5.806 (0.360) | 51 | 30449 | 0.50000 | 0.5477 | 70.00- 130.00 | 100.00 |
| 5.693 | 5.806 (0.357) | 67 | 3405 | | | 0.00- 41.79 | 11.18 |
| 6.977 | 5.806 (0.438) | 85 | 3416 | | | 0.00- 37.94 | 11.22 |
| 14 Fr21 | | | | | CAS #: 75-43-4 | | |
| 11.280 | 11.280 (0.708) | 67 | 33567 | 0.50000 | 0.5440 | 70.00- 130.00 | 100.00 |
| 11.280 | 11.280 (0.708) | 69 | 9635 | | | 0.49- 60.49 | 28.70 |
| 11.280 | 11.280 (0.708) | 47 | 4796 | | | 0.00- 45.46 | 14.29 |
| 205 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 23.111 | 23.111 (1.041) | 58 | 27262 | 0.50000 | 0.5582 | 70.00- 130.00 | 100.00 |
| 23.111 | 23.111 (1.041) | 43 | 62692 | | | 201.02- 261.02 | 229.96 |
| 206 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 17.497 | 17.469 (1.011) | 56 | 17475 | 0.50000 | 0.3924 | 70.00- 130.00 | 100.00(a) |
| 17.497 | 17.469 (1.011) | 41 | 12464 | | | 53.11- 113.11 | 71.32 |
| 17.497 | 17.469 (1.011) | 43 | 9639 | | | 32.89- 92.89 | 55.16 |
| 204 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 21.152 | 21.116 (1.222) | 56 | 12271 | 0.50000 | 0.4849 | 70.00- 130.00 | 100.00(a) |
| 21.152 | 21.116 (1.222) | 73 | 4754 | | | 1.67- 61.67 | 38.74 |
| 21.152 | 21.116 (1.222) | 43 | 40439 | | | 283.51- 343.51 | 329.55 |
| 56 1,1-Dicholoropropene | | | | | CAS #: 563-58-6 | | |
| 16.457 | 16.458 (1.033) | 110 | 9193 | 0.50000 | 0.5040 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.458 (1.033) | 75 | 27480 | | | 249.21- 309.21 | 298.92 |
| 91 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 22.342 | 22.343 (1.006) | 131 | 30160 | 0.50000 | 0.5445 | 70.00- 130.00 | 100.00 |
| 22.342 | 22.343 (1.006) | 117 | 22020 | | | 40.73- 100.73 | 73.01 |
| 22.342 | 22.343 (1.006) | 95 | 11433 | | | 8.70- 68.70 | 37.91 |
| 105 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 23.936 | 23.936 (1.078) | 110 | 13634 | 0.50000 | 0.5594 | 70.00- 130.00 | 100.00 |
| 23.936 | 23.936 (1.078) | 75 | 35802 | | | 248.74- 308.74 | 262.59 |
| 23.936 | 23.936 (1.078) | 61 | 13002 | | | 67.24- 127.24 | 95.36 |
| 97 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 23.884 | 23.884 (1.076) | 156 | 21879 | 0.50000 | 0.5207 | 70.00- 130.00 | 100.00 |
| 23.884 | 23.884 (1.076) | 158 | 23486 | | | 70.23- 130.23 | 107.34 |
| 23.884 | 23.884 (1.076) | 77 | 46017 | | | 166.97- 226.97 | 210.32 |
| 107 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 24.090 | 24.091 (1.085) | 126 | 12110 | 0.50000 | 0.5229 | 70.00- 130.00 | 100.00 |
| 24.090 | 24.091 (1.085) | 91 | 38115 | | | 263.05- 323.05 | 314.74 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 107 2-Chlorotoluene (continued) | | | | | | | |
| 24.090 | 24.091 (1.085) | 65 | 4748 | | | 6.34- 66.34 | 39.21 |
| 109 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 24.193 | 24.194 (1.090) | 126 | 12785 | 0.50000 | 0.6067 | 70.00- 130.00 | 100.00 |
| 24.193 | 24.194 (1.090) | 91 | 29682 | | | 237.89- 297.89 | 232.16 |
| 24.193 | 24.194 (1.090) | 63 | 5552 | | | 17.19- 77.19 | 43.43 |
| 115 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 24.477 | 24.477 (1.102) | 119 | 30796 | 0.50000 | 0.5667 | 70.00- 130.00 | 100.00 |
| 24.477 | 24.477 (1.102) | 134 | 7429 | | | 0.00- 54.70 | 24.12 |
| 24.477 | 24.477 (1.102) | 91 | 22185 | | | 37.96- 97.96 | 72.04 |
| 119 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 24.709 | 24.710 (1.113) | 105 | 41402 | 0.50000 | 0.5819 | 70.00- 130.00 | 100.00 |
| 24.709 | 24.710 (1.113) | 134 | 8745 | | | 0.00- 51.17 | 21.12 |
| 24.709 | 24.710 (1.113) | 91 | 7161 | | | 0.00- 46.66 | 17.30 |
| 116 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 24.835 | 24.835 (1.118) | 119 | 44878 | 0.50000 | 0.6434 | 70.00- 130.00 | 100.00 |
| 24.835 | 24.835 (1.118) | 134 | 12563 | | | 0.00- 57.73 | 27.99 |
| 24.835 | 24.835 (1.118) | 91 | 12048 | | | 0.00- 54.71 | 26.85 |
| 123 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 25.261 | 25.261 (1.138) | 134 | 14415 | 0.50000 | 0.6484 | 70.00- 130.00 | 100.00 |
| 25.261 | 25.261 (1.138) | 91 | 52075 | | | 322.95- 382.95 | 361.26 |
| 25.261 | 25.261 (1.138) | 92 | 27629 | | | 154.37- 214.37 | 191.67 |
| 129 1,2-dibromo-3-chloropropane | | | | | CAS #: 96-12-8 | | |
| 26.225 | 26.203 (1.181) | 157 | 14655 | 0.50000 | 0.4884 | 70.00- 130.00 | 100.00(a) |
| 26.202 | 26.203 (1.180) | 75 | 12976 | | | 60.30- 120.30 | 88.54 |
| 26.225 | 26.203 (1.181) | 155 | 11451 | | | 49.02- 109.02 | 78.14 |
| 83 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 21.044 | 21.045 (1.216) | 76 | 32233 | 0.50000 | 0.5303 | 70.00- 130.00 | 100.00 |
| 21.044 | 21.045 (1.216) | 41 | 38211 | | | 86.61- 146.61 | 118.55 |
| 21.044 | 21.045 (1.216) | 78 | 11453 | | | 2.78- 62.78 | 35.53 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 20-Oct-2014 08:42

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101709.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 0.5ppbv (5.0ppbv) AT-1

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 99562 | -14.61 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 436482 | -9.14 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 334790 | -14.59 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101709.d



Date : 17-OCT-2014 15:22

Client ID:

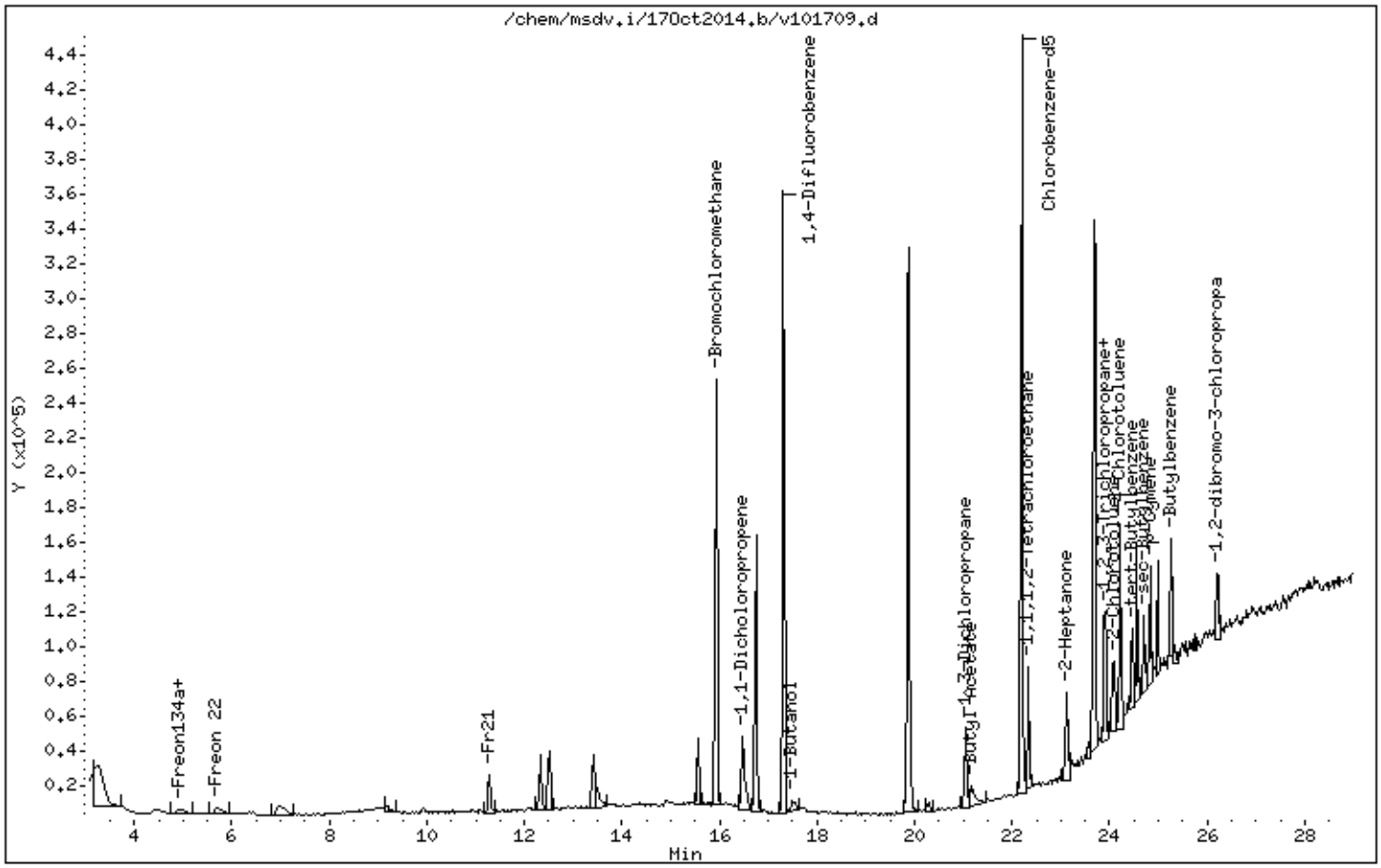
Instrument: msdv.i

Sample Info: 25mL# 2687-10

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101706.d
Lab Smp Id: ICAL Level 7
Inj Date : 17-OCT-2014 12:42
Operator : ef Inst ID: msdv.i
Smp Info : 25mL# 2687-8
Misc Info : 0.5ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 15:22 Cal File: v101709.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.947 (1.000) | 130 | 104372 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.947 (1.000) | 128 | 79603 | | | 48.18- 108.18 | 76.27 |
| 15.933 | 15.916 (1.000) | 49 | 224518 | | | 210.53- 270.53 | 215.11 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.318 (1.000) | 114 | 438823 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.318 (1.000) | 88 | 69861 | | | 0.00- 45.98 | 15.92 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.219 (1.000) | 117 | 345776 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 191745 | | | 28.41- 88.41 | 55.45 |
| 38 tert-butyl alcohol | | | | | | CAS #: 75-65-0 | |
| 13.859 | 13.859 (0.870) | 59 | 51398 | 0.50000 | 0.5286 | 80.00- 120.00 | 100.00 |
| 13.859 | 13.859 (0.870) | 41 | 17514 | | | 1.21- 61.21 | 34.08 |
| 13.859 | 13.859 (0.870) | 57 | 5005 | | | 0.00- 40.48 | 9.74 |
| 45 Isopropyl ether | | | | | | CAS #: 108-20-3 | |
| 14.738 | 14.738 (0.925) | 45 | 113381 | 0.50000 | 0.5377 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 45 Isopropyl ether (continued) | | | | | | | | |
| 14.738 | 14.738 | (0.925) | 87 | 15169 | | | 0.00- 43.46 | 13.38 |
| 14.738 | 14.738 | (0.925) | 59 | 9246 | | | 0.00- 38.28 | 8.15 |
| 49 Ethyl-tert-butyl ether | | | | | | CAS #: 637-92-3 | | |
| 15.240 | 15.240 | (0.956) | 59 | 84753 | 0.50000 | 0.5212 | 80.00- 120.00 | 100.00 |
| 15.240 | 15.240 | (0.956) | 87 | 25879 | | | 0.00- 58.99 | 30.53 |
| 15.240 | 15.240 | (0.956) | 41 | 22046 | | | 0.00- 55.20 | 26.01 |
| 66 tert-amyl methyl ether | | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 | (0.971) | 87 | 14796 | 0.50000 | 0.5322 | 80.00- 120.00 | 100.00 |
| 16.810 | 16.810 | (0.971) | 73 | 61437 | | | 391.10- 451.10 | 415.23 |
| 16.810 | 16.810 | (0.971) | 55 | 23551 | | | 132.07- 192.07 | 159.17 |

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101706.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 104372 | -10.48 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 438823 | -8.66 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 345776 | -11.78 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101706.d



Date : 17-OCT-2014 12:42

Client ID:

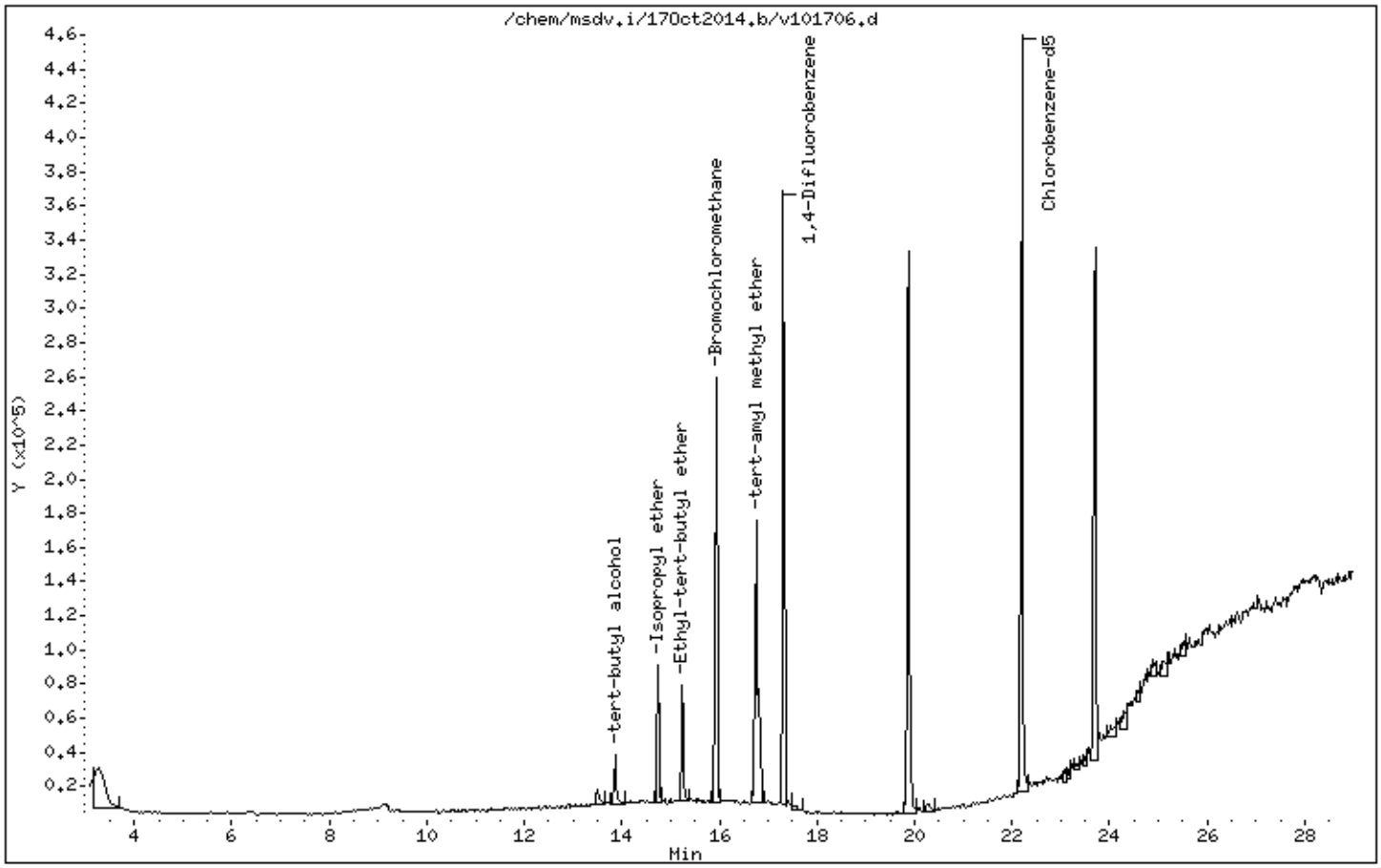
Instrument: msdv.i

Sample Info: 25mL# 2687-8

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100709.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 07-OCT-2014 18:39
Operator : gd Inst ID: msdv.i
Smp Info : 25mL #2677-286
Misc Info : 0.5ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 22:27 gdelacru Quant Type: ISTD
Cal Date : 07-OCT-2014 18:39 Cal File: v100709.d
Als bottle: 4 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.934 (1.000) | 130 | 103540 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 82294 | | | 48.21- 108.21 | 79.48 |
| 15.934 | 15.934 (1.000) | 49 | 244383 | | | 215.61- 275.61 | 236.03 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 450706 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 71992 | | | 0.00- 46.17 | 15.97 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 339850 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 201486 | | | 29.34- 89.34 | 59.29 |
| 76 Octane | | | | | | CAS #: 111-65-9 | |
| 19.968 | 19.968 (1.154) | 57 | 19830 | 0.50000 | 0.5053 | 80.00- 120.00 | 100.00 |
| 19.968 | 19.968 (1.154) | 85 | 14716 | | | 45.62- 105.62 | 74.21 |
| 19.968 | 19.968 (1.154) | 43 | 69056 | | | 293.94- 353.94 | 348.24 |
| 99 Decane | | | | | | CAS #: 124-18-5 | |
| 23.987 | 23.987 (1.080) | 57 | 57810 | 0.50000 | 0.5546 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 99 Decane (continued) | | | | | | | |
| 23.987 | 23.987 (1.080) | 71 | 15345 | | | 0.00- 57.94 | 26.54 |
| 23.987 | 23.987 (1.080) | 142 | 2143 | | | 0.00- 33.26 | 3.71 |
| 117 Indene | | | | | CAS #: 95-13-6 | | |
| 25.485 | 25.485 (1.148) | 115 | 27918 | 0.50000 | 0.5749 | 80.00- 120.00 | 100.00(T) |
| 25.485 | 25.485 (1.148) | 116 | 29351 | | | 67.11- 127.11 | 105.13 |
| 0.000 | 25.485 (0.000) | 0 | 0 | | | 0.00- 30.00 | 0.00 |
| 121 1,2,3-trimethylbenzene | | | | | CAS #: 526-73-8 | | |
| 24.992 | 24.992 (1.125) | 120 | 16454 | 0.50000 | 0.5743 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 105 | 35261 | | | 192.71- 252.71 | 214.30 |
| 24.992 | 24.992 (1.125) | 77 | 6557 | | | 2.83- 62.83 | 39.85 |

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 08-Oct-2014 08:26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100709.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 103540 | -15.65 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 450706 | -9.59 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 339850 | -14.61 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/07Oct2014.b/v100709.d



Date : 07-OCT-2014 18:39

Client ID: Level 7

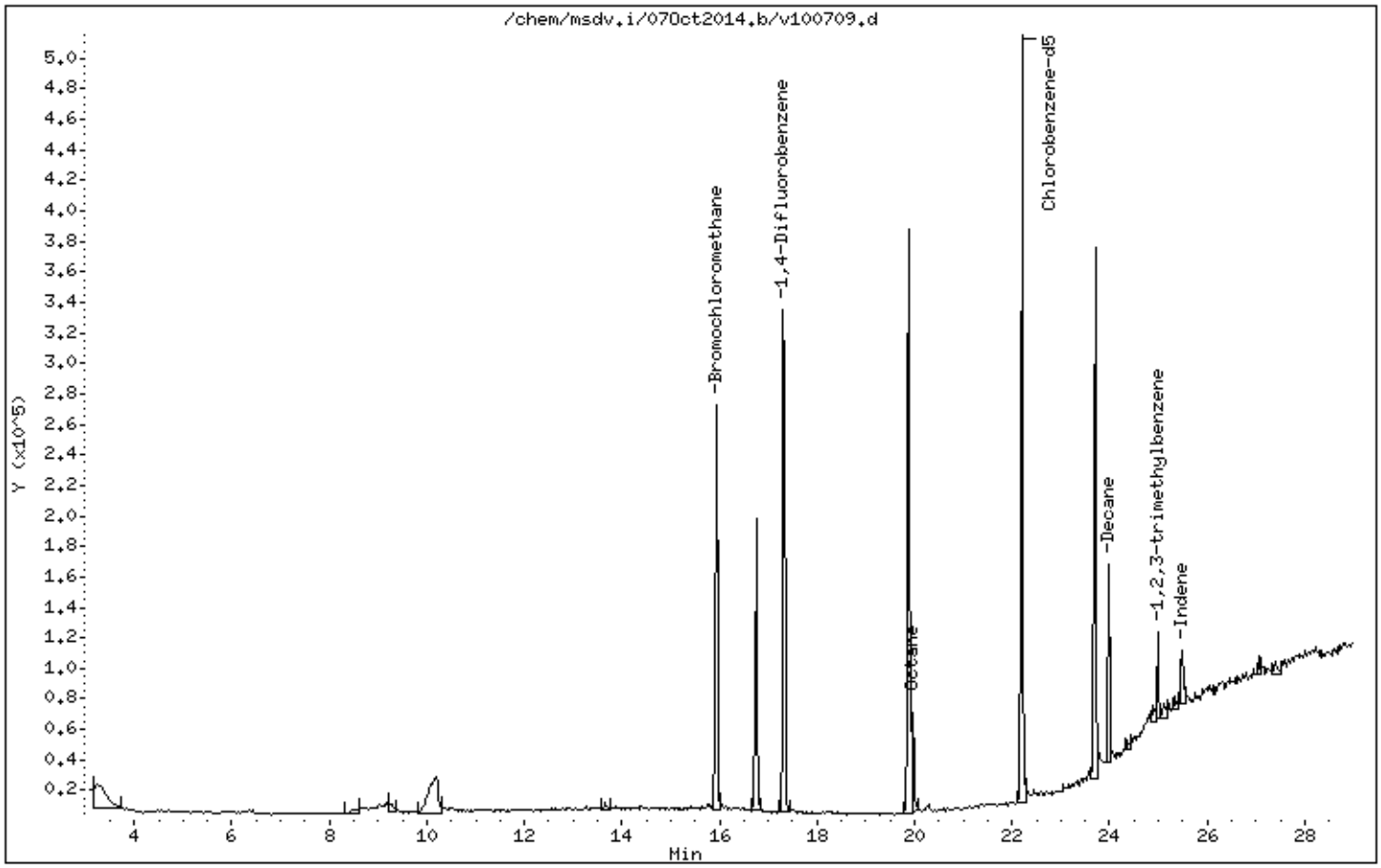
Instrument: msdv.i

Sample Info: 25mL #2677-286

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100608.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 06-OCT-2014 15:47
Operator : ef Inst ID: msdv.i
Smp Info : 125mL #2677-278
Misc Info : 0.5ppbv (1.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 15:47 Cal File: v100608.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 120259 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 93964 | | | 47.54- 107.54 | 78.13 |
| 15.933 | 15.933 (1.000) | 49 | 299027 | | | 218.45- 278.45 | 248.65 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 486142 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 80783 | | | 0.00- 46.16 | 16.62 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 382777 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 224408 | | | 29.12- 89.12 | 58.63 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 214391 | 5.00000 | 4.858 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 103519 | | | 28.37- 88.37 | 48.29 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 467006 | 5.00000 | 4.996 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 53187 | | | 0.00- 41.90 | 11.39 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    290038                    33.85-  93.85    62.11
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    154004 5.00000    4.678  70.00- 130.00   100.00
 23.704  23.704 (1.067)    95    197666                   99.95- 159.95   128.35
 23.704  23.704 (1.067)   176    149443                   67.64- 127.64    97.04
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.711   4.711 (0.296)    41     38237 0.50000   0.5667  70.00- 130.00   100.00
  4.711   4.711 (0.296)    42     25636                   35.18-  95.18    67.05
  4.673   4.673 (0.293)    39     27340                   44.12- 104.12    71.50
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.240 (0.329)    85     55373 0.50000   0.4915  70.00- 130.00   100.00
  5.202   5.202 (0.326)    87     17513                    1.90-  61.90    31.63
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.750   6.750 (0.424)   135     39124 0.50000   0.4862  70.00- 130.00   100.00
  6.750   6.750 (0.424)   137     11158                    0.53-  60.53    28.52
  6.750   6.750 (0.424)    85     58788                  121.37- 181.37   150.26
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.090   7.090 (0.445)    50     32428 0.50000   0.4776  70.00- 130.00   100.00
  7.090   7.090 (0.445)    52     11602                    1.81-  61.81    35.78
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.884   7.884 (0.495)    58      5736 0.50000   0.5041  70.00- 130.00   100.00
  7.884   7.884 (0.495)    43     63363                 1065.18-1125.18  1104.65
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62     23990 0.50000   0.4735  70.00- 130.00   100.00
  8.009   8.009 (0.503)    64      6909                    0.00-  58.65    28.80
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54     24293 0.50000   0.4891  70.00- 130.00   100.00
  8.257   8.257 (0.518)    39     37260                  107.15- 167.15   153.38
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94     13143 0.50000   0.4231  70.00- 130.00   100.00
  9.834   9.834 (0.617)    96     14743                   72.12- 132.12   112.17
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.364  10.364 (0.650)    64     10587 0.50000   0.4496  70.00- 130.00   100.00
 10.364  10.364 (0.650)    66      3703                    0.00-  59.90    34.98
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 24351 | 0.50000 | 0.5020 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 45722 | | | 171.32- 231.32 | 187.76 |
| 10.533 | 10.533 (0.661) | 42 | 43503 | | | 150.03- 210.03 | 178.65 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.183 (0.702) | 101 | 54723 | 0.50000 | 0.4718 | 70.00- 130.00 | 100.00 |
| 11.183 | 11.183 (0.702) | 103 | 34505 | | | 36.54- 96.54 | 63.05 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.156 | 12.156 (0.763) | 45 | 9143 | 0.50000 | 0.3719 | 70.00- 130.00 | 100.00 |
| 12.184 | 12.184 (0.765) | 46 | 4049 | | | 8.51- 68.51 | 44.29 |
| 12.156 | 12.156 (0.763) | 43 | 4194 | | | 0.00- 54.10 | 45.87 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 12794 | 0.50000 | 0.4937 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 42434 | | | 320.65- 380.65 | 331.67 |
| 12.568 | 12.568 (0.789) | 96 | 21325 | | | 134.30- 194.30 | 166.68 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.596 | 12.596 (0.791) | 151 | 33327 | 0.50000 | 0.4774 | 70.00- 130.00 | 100.00 |
| 12.596 | 12.596 (0.791) | 153 | 21246 | | | 33.10- 93.10 | 63.75 |
| 12.568 | 12.568 (0.789) | 101 | 43479 | | | 96.37- 156.37 | 130.46 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.843 | 12.843 (0.806) | 58 | 14630 | 0.50000 | 0.5149 | 70.00- 130.00 | 100.00 |
| 12.843 | 12.843 (0.806) | 43 | 60558 | | | 413.15- 473.15 | 413.93 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 53342 | 0.50000 | 0.4839 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.392 | 13.392 (0.841) | 76 | 6672 | 0.50000 | 0.4194 | 70.00- 130.00 | 100.00 |
| 13.392 | 13.392 (0.841) | 41 | 40158 | | | 547.03- 607.03 | 601.89 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.200 | 13.200 (0.828) | 45 | 53616 | 0.50000 | 0.4075 | 70.00- 130.00 | 100.00 |
| 13.200 | 13.200 (0.828) | 43 | 13981 | | | 0.00- 50.74 | 26.08 |
| 13.200 | 13.200 (0.828) | 59 | 1661 | | | 0.00- 32.83 | 3.10 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.667 | 13.667 (0.858) | 84 | 18099 | 0.50000 | 0.4950 | 70.00- 130.00 | 100.00 |
| 13.667 | 13.667 (0.858) | 49 | 43100 | | | 212.37- 272.37 | 238.13 |
| 13.667 | 13.667 (0.858) | 51 | 13704 | | | 43.31- 103.31 | 75.72 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 51905 | 0.50000 | 0.4501 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 38 tert-butyl alcohol (continued) | | | | | | | |
| 13.859 | 13.859 (0.870) | 41 | 18735 | | | 1.97- 61.97 | 36.09 |
| 13.859 | 13.859 (0.870) | 57 | 5762 | | | 0.00- 40.67 | 11.10 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 14.024 | 14.024 (0.880) | 73 | 60751 | 0.50000 | 0.4631 | 70.00- 130.00 | 100.00 |
| 13.996 | 13.996 (0.878) | 57 | 20014 | | | 2.99- 62.99 | 32.94 |
| 13.996 | 13.996 (0.878) | 41 | 25504 | | | 12.12- 72.12 | 41.98 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 11945 | 0.50000 | 0.4871 | 70.00- 130.00 | 100.00 |
| 14.051 | 14.051 (0.882) | 61 | 38803 | | | 293.73- 353.73 | 324.85 |
| 14.051 | 14.051 (0.882) | 96 | 18716 | | | 146.88- 206.88 | 156.68 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 50018 | 0.50000 | 0.4765 | 70.00- 130.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 41885 | | | 57.65- 117.65 | 83.74 |
| 14.381 | 14.381 (0.903) | 86 | 5015 | | | 0.00- 40.67 | 10.03 |
| 45 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.738 | 14.738 (0.925) | 45 | 124930 | 0.50000 | 0.4582 | 70.00- 130.00 | 100.00 |
| 14.738 | 14.738 (0.925) | 87 | 18176 | | | 0.00- 43.44 | 14.55 |
| 14.738 | 14.738 (0.925) | 59 | 11875 | | | 0.00- 38.34 | 9.51 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 49013 | 0.50000 | 0.4812 | 70.00- 130.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 14306 | | | 0.37- 60.37 | 29.19 |
| 47 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.820 | 14.820 (0.930) | 86 | 3910 | 0.50000 | 0.3761 | 70.00- 130.00 | 100.00 |
| 14.820 | 14.820 (0.930) | 42 | 6868 | | | 220.92- 280.92 | 175.65 |
| 14.820 | 14.820 (0.930) | 43 | 108054 | | | 3282.47-3342.47 | 2763.53 |
| 49 Ethyl-tert-butyl ether | | | | | CAS #: 637-92-3 | | |
| 15.240 | 15.240 (0.956) | 59 | 88410 | 0.50000 | 0.4758 | 70.00- 130.00 | 100.00 |
| 15.240 | 15.240 (0.956) | 87 | 24483 | | | 0.00- 58.71 | 27.69 |
| 15.240 | 15.240 (0.956) | 41 | 24046 | | | 0.00- 56.39 | 27.20 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 16155 | 0.50000 | 0.4965 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 61 | 43416 | | | 248.69- 308.69 | 268.75 |
| 15.592 | 15.592 (0.979) | 96 | 25570 | | | 132.55- 192.55 | 158.28 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.592 (0.979) | 72 | 7703 | 0.50000 | 0.3642 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 43 | 69697 | | | 794.80- 854.80 | 904.80 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 51 2-Butanone (continued) | | | | | | | |
| 15.613 | 15.613 (0.980) | 57 | 4120 | | | 18.01- 78.01 | 53.49 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 53558 | 0.50000 | 0.4914 | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 9430 | | | 0.00- 49.03 | 17.61 |
| 15.933 | 15.933 (1.000) | 72 | 12089 | | | 0.00- 51.35 | 22.57 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 50312 | 0.50000 | 0.4964 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 31269 | | | 33.33- 93.33 | 62.15 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.272 | 16.272 (1.021) | 84 | 33557 | 0.50000 | 0.5265 | 70.00- 130.00 | 100.00 |
| 16.272 | 16.272 (1.021) | 56 | 57135 | | | 157.43- 217.43 | 170.26 |
| 16.272 | 16.272 (1.021) | 41 | 40398 | | | 105.99- 165.99 | 120.39 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 48839 | 0.50000 | 0.4615 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 32342 | | | 32.16- 92.16 | 66.22 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.457 | 16.457 (1.033) | 119 | 45905 | 0.50000 | 0.4522 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.457 (1.033) | 117 | 49247 | | | 69.67- 129.67 | 107.28 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 53085 | 0.50000 | 0.4779 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 154476 | | | 258.69- 318.69 | 291.00 |
| 16.728 | 16.728 (1.050) | 41 | 59422 | | | 79.91- 139.91 | 111.94 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.783 | 16.783 (0.970) | 78 | 70591 | 0.50000 | 0.4920 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (0.968) | 77 | 17451 | | | 0.00- 53.73 | 24.72 |
| 66 tert-amyl methyl ether | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 (0.971) | 87 | 15127 | 0.50000 | 0.4656 | 70.00- 130.00 | 100.00 |
| 16.810 | 16.810 (0.971) | 73 | 65045 | | | 399.95- 459.95 | 429.99 |
| 16.810 | 16.810 (0.971) | 55 | 27814 | | | 143.62- 203.62 | 183.87 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 40011 | 0.50000 | 0.4602 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 12309 | | | 1.11- 61.11 | 30.76 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 29412 | 0.50000 | 0.4757 | 70.00- 130.00 | 100.00 |
| 16.975 | 16.975 (0.981) | 100 | 6487 | | | 0.00- 51.27 | 22.06 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 72995 | | | 235.24- 295.24 | 248.18 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.716 | 17.716 (1.024) | 130 | 32096 | 0.50000 | 0.4970 | 70.00- 130.00 | 100.00 |
| 17.716 | 17.716 (1.024) | 95 | 32152 | | | 71.16- 131.16 | 100.17 |
| 17.716 | 17.716 (1.024) | 97 | 19437 | | | 33.04- 93.04 | 60.56 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.964 (1.038) | 83 | 37860 | 0.50000 | 0.4464 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.038) | 98 | 16507 | | | 15.02- 75.02 | 43.60 |
| 17.964 | 17.964 (1.038) | 55 | 49965 | | | 95.64- 155.64 | 131.97 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 31185 | 0.50000 | 0.4739 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 24195 | | | 45.17- 105.17 | 77.59 |
| 18.156 | 18.156 (1.049) | 41 | 26921 | | | 59.65- 119.65 | 86.33 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.293 | 18.293 (1.057) | 88 | 14599 | 0.50000 | 0.4414 | 70.00- 130.00 | 100.00 |
| 18.293 | 18.293 (1.057) | 58 | 14613 | | | 72.13- 132.13 | 100.10 |
| 18.293 | 18.293 (1.057) | 57 | 4983 | | | 4.41- 64.41 | 34.13 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 48554 | 0.50000 | 0.4456 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 32401 | | | 32.12- 92.12 | 66.73 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 33226 | 0.50000 | 0.4462 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 10641 | | | 1.25- 61.25 | 32.03 |
| 19.408 | 19.408 (1.122) | 39 | 33340 | | | 71.17- 131.17 | 100.34 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.610 | 19.610 (1.133) | 43 | 84614 | 0.50000 | 0.4178 | 70.00- 130.00 | 100.00 |
| 19.610 | 19.610 (1.133) | 58 | 22717 | | | 0.00- 57.24 | 26.85 |
| 19.610 | 19.610 (1.133) | 85 | 6996 | | | 0.00- 38.20 | 8.27 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 74018 | 0.50000 | 0.4674 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 43608 | | | 28.60- 88.60 | 58.92 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 36691 | 0.50000 | 0.4650 | 70.00- 130.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 15467 | | | 5.48- 65.48 | 42.15 |
| 20.435 | 20.435 (0.920) | 39 | 29172 | | | 63.15- 123.15 | 79.51 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 84 1,1,2-Trichloroethane | | | | | | CAS #: 79-00-5 | |
| 20.757 | 20.757 (0.935) | 97 | 28557 | 0.50000 | 0.4740 | 70.00- 130.00 | 100.00 |
| 20.757 | 20.757 (0.935) | 99 | 18705 | | | 32.13- 92.13 | 65.50 |
| 20.757 | 20.757 (0.935) | 83 | 24917 | | | 57.82- 117.82 | 87.25 |
| 86 Tetrachloroethene | | | | | | CAS #: 127-18-4 | |
| 20.901 | 20.901 (0.941) | 166 | 37826 | 0.50000 | 0.4856 | 70.00- 130.00 | 100.00 |
| 20.901 | 20.901 (0.941) | 129 | 27646 | | | 47.04- 107.04 | 73.09 |
| 20.901 | 20.901 (0.941) | 131 | 27765 | | | 46.95- 106.95 | 73.40 |
| 87 2-Hexanone | | | | | | CAS #: 591-78-6 | |
| 21.044 | 21.044 (0.948) | 58 | 25201 | 0.50000 | 0.3735 | 70.00- 130.00 | 100.00 |
| 21.044 | 21.044 (0.948) | 43 | 71966 | | | 242.48- 302.48 | 285.57 |
| 21.044 | 21.044 (0.948) | 100 | 3396 | | | 0.00- 43.88 | 13.48 |
| 89 Dibromochloromethane | | | | | | CAS #: 124-48-1 | |
| 21.367 | 21.367 (0.962) | 129 | 48941 | 0.50000 | 0.4364 | 70.00- 130.00 | 100.00 |
| 21.367 | 21.367 (0.962) | 127 | 38174 | | | 50.38- 110.38 | 78.00 |
| 90 1,2-Dibromoethane | | | | | | CAS #: 106-93-4 | |
| 21.583 | 21.583 (0.972) | 107 | 41603 | 0.50000 | 0.4432 | 70.00- 130.00 | 100.00 |
| 21.583 | 21.583 (0.972) | 109 | 37253 | | | 62.69- 122.69 | 89.54 |
| 93 Chlorobenzene | | | | | | CAS #: 108-90-7 | |
| 22.233 | 22.233 (1.001) | 112 | 61430 | 0.50000 | 0.4887 | 70.00- 130.00 | 100.00 |
| 22.233 | 22.233 (1.001) | 114 | 19522 | | | 1.62- 61.62 | 31.78 |
| 22.233 | 22.233 (1.001) | 77 | 42245 | | | 38.66- 98.66 | 68.77 |
| 95 Ethyl Benzene | | | | | | CAS #: 100-41-4 | |
| 22.315 | 22.315 (1.005) | 106 | 25630 | 0.50000 | 0.4543 | 70.00- 130.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 84657 | | | 292.36- 352.36 | 330.30 |
| 96 m,p-Xylene | | | | | | CAS #: 108-38-3 | |
| 22.480 | 22.480 (1.012) | 106 | 24121 | 0.50000 | 0.4336 | 70.00- 130.00 | 100.00 |
| 22.480 | 22.480 (1.012) | 91 | 46913 | | | 164.15- 224.15 | 194.49 |
| 100 o-Xylene | | | | | | CAS #: 95-47-6 | |
| 23.001 | 23.001 (1.036) | 106 | 22624 | 0.50000 | 0.4370 | 70.00- 130.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 46479 | | | 186.63- 246.63 | 205.44 |
| 101 Styrene | | | | | | CAS #: 100-42-5 | |
| 23.029 | 23.029 (1.037) | 104 | 32628 | 0.50000 | 0.4308 | 70.00- 130.00 | 100.00 |
| 23.029 | 23.029 (1.037) | 78 | 16563 | | | 28.70- 88.70 | 50.76 |
| 102 Bromoform | | | | | | CAS #: 75-25-2 | |
| 23.331 | 23.331 (1.051) | 173 | 39084 | 0.50000 | 0.4112 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 20099 | | | 20.40- 80.40 | 51.43 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 63511 | 0.50000 | 0.4201 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 17940 | | | 0.00- 57.73 | 28.25 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 55297 | 0.50000 | 0.4762 | 70.00- 130.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 34052 | | | 34.81- 94.81 | 61.58 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 55435 | 0.50000 | 0.4134 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 13929 | | | 0.00- 53.83 | 25.13 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 46100 | 0.50000 | 0.4686 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 13588 | | | 0.18- 60.18 | 29.48 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 31786 | 0.50000 | 0.3870 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 19149 | | | 20.44- 80.44 | 60.24 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 31979 | 0.50000 | 0.4807 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 16013 | | | 19.27- 79.27 | 50.07 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 25260 | 0.50000 | 0.3935 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 16340 | | | 38.48- 98.48 | 64.69 |
| 24.902 | 24.902 (1.121) | 111 | 11015 | | | 10.49- 70.49 | 43.61 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 27412 | 0.50000 | 0.4543 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 17046 | | | 38.92- 98.92 | 62.18 |
| 24.992 | 24.992 (1.125) | 111 | 10696 | | | 11.61- 71.61 | 39.02 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.126 | 25.126 (1.132) | 91 | 27819 | 0.50000 | 0.4315 | 70.00- 130.00 | 100.00 |
| 25.126 | 25.126 (1.132) | 126 | 8088 | | | 0.00- 52.82 | 29.07 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.395 (1.144) | 146 | 24740 | 0.50000 | 0.4154 | 70.00- 130.00 | 100.00 |
| 25.395 | 25.395 (1.144) | 148 | 15197 | | | 36.09- 96.09 | 61.43 |
| 25.395 | 25.395 (1.144) | 111 | 10263 | | | 13.38- 73.38 | 41.48 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 21751 | 0.50000 | 0.4977 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 20431 | | | 64.14- 124.14 | 93.93 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 (1.223) | 225 | 15392 | 0.50000 | 0.4211 | 70.00- 130.00 | 100.00 |
| 27.166 | 27.166 (1.223) | 223 | 9641 | | | 44.27- 104.27 | 62.64 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.391 (1.234) | 128 | 6025 | 0.05000 | 0.05821 | 70.00- 130.00 | 100.00(a) |
| 27.391 | 27.391 (1.234) | 127 | 2273 | | | 0.00- 47.41 | 37.73 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100608.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 120259 | -3.87 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 486142 | -2.42 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 382777 | -5.82 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100608.d



Date : 06-OCT-2014 15:47

Client ID: Level 7

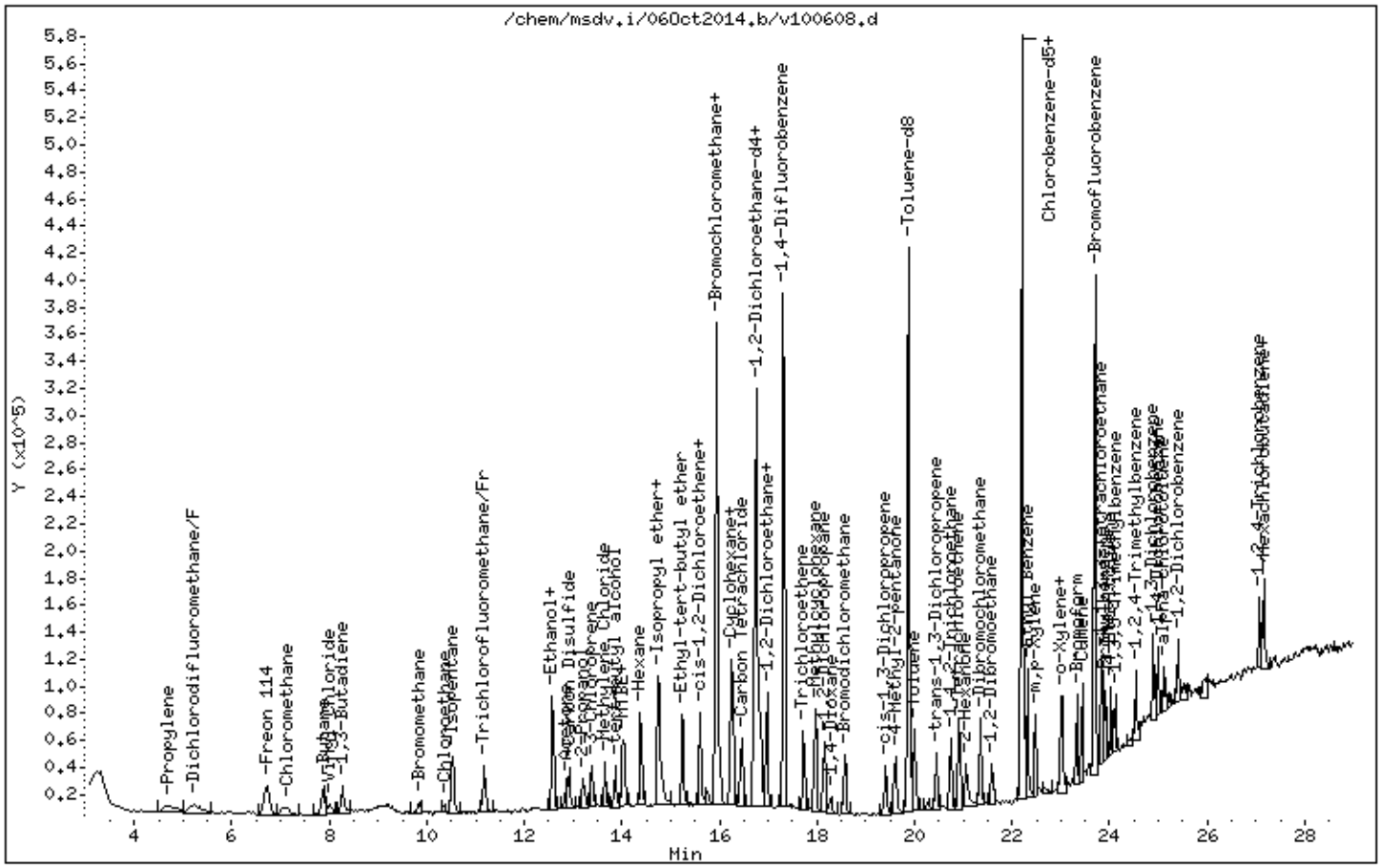
Instrument: msdv.i

Sample Info: 125mL #2677-278

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem1/msdv.i/22Oct2014.b/v102212.d
Lab Smp Id: ICAL Level 8 Client Smp ID: ICAL Level 8
Inj Date : 22-OCT-2014 19:15
Operator : sn Inst ID: msdv.i
Smp Info : 50mL #2687-31
Misc Info : 1.0ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/22Oct2014.b/v14l1006c.m
Meth Date : 22-Oct-2014 20:00 snguyen Quant Type: ISTD
Cal Date : 22-OCT-2014 19:15 Cal File: v102212.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT7-AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.933 (1.000) | 130 | 88567 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 69119 | | | 47.58- 107.58 | 78.04 |
| 15.933 | 15.933 (1.000) | 49 | 203905 | | | 212.40- 272.40 | 230.23 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 365222 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 57870 | | | 0.00- 46.08 | 15.85 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 277294 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 162280 | | | 28.82- 88.82 | 58.52 |
| 13 Vinyl Bromide | | | | | | CAS #: 593-60-2 | |
| 10.967 | 10.967 (0.688) | 106 | 10842 | 1.00000 | 0.9816 | 70.00- 130.00 | 100.00 |
| 10.967 | 10.967 (0.688) | 108 | 10803 | | | 69.86- 129.86 | 99.64 |
| 15 1-Pentene | | | | | | CAS #: 109-67-1 | |
| 11.256 | 11.256 (0.706) | 55 | 9165 | 1.00000 | 1.037 | 70.00- 130.00 | 100.00 |
| 11.256 | 11.256 (0.706) | 42 | 15773 | | | 142.41- 202.41 | 172.10 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 19 Diethyl Ether | | | | | CAS #: 60-29-7 | | |
| 12.101 | 12.101 (0.759) | 74 | 4556 | 1.00000 | 0.9414 | 70.00- 130.00 | 100.00(T) |
| 12.101 | 12.101 (0.759) | 59 | 8950 | | | 162.36- 222.36 | 196.44 |
| 0.000 | 1.000 (0.000) | 31 | 0 | | | 0.00- 30.00 | 0.00 |
| 26 Acetonitrile | | | | | CAS #: 75-05-8 | | |
| 13.502 | 13.502 (0.847) | 41 | 32608 | 1.00000 | 0.8833 | 70.00- 130.00 | 100.00 |
| 13.475 | 13.475 (0.846) | 40 | 16707 | | | 15.69- 75.69 | 51.24 |
| 13.420 | 13.420 (0.842) | 39 | 27249 | | | 25.67- 85.67 | 83.57 |
| 32 Acrylonitrile | | | | | CAS #: 107-13-1 | | |
| 14.161 | 14.161 (0.889) | 53 | 19010 | 1.00000 | 0.9850 | 70.00- 130.00 | 100.00 |
| 14.161 | 14.161 (0.889) | 52 | 14874 | | | 54.38- 114.38 | 78.24 |
| 41 1-Hexene | | | | | CAS #: 592-41-6 | | |
| 14.271 | 14.271 (0.896) | 55 | 5595 | 1.00000 | 0.8627 | 70.00- 130.00 | 100.00 |
| 14.271 | 14.271 (0.896) | 41 | 11578 | | | 152.85- 212.85 | 206.93 |
| 14.298 | 14.298 (0.897) | 84 | 1292 | | | 0.00- 53.17 | 23.09 |
| 44 Methyl Acrylate | | | | | CAS #: 96-33-3 | | |
| 15.696 | 15.696 (0.985) | 55 | 40339 | 1.00000 | 0.8781 | 70.00- 130.00 | 100.00 |
| 15.696 | 15.696 (0.985) | 85 | 3704 | | | 0.00- 38.30 | 9.18 |
| 15.696 | 15.696 (0.985) | 58 | 2871 | | | 0.00- 37.05 | 7.12 |
| 60 Ethyl Acrylate | | | | | CAS #: 140-88-5 | | |
| 17.771 | 17.771 (1.115) | 99 | 2291 | 1.00000 | 0.9162 | 70.00- 130.00 | 100.00 |
| 17.771 | 17.771 (1.115) | 45 | 7703 | | | 301.40- 361.40 | 336.23 |
| 17.771 | 17.771 (1.115) | 55 | 58517 | | | 2545.61-2605.61 | 2554.21 |
| 62 2-Pentanone | | | | | CAS #: 107-87-9 | | |
| 17.964 | 17.964 (1.127) | 43 | 110484 | 1.00000 | 0.9663 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.127) | 58 | 6062 | | | 0.00- 35.77 | 5.49 |
| 17.964 | 17.964 (1.127) | 86 | 10031 | | | 0.00- 39.16 | 9.08 |
| 67 Methyl Methacrylate | | | | | CAS #: 80-62-6 | | |
| 18.156 | 18.156 (1.139) | 41 | 46637 | 1.00000 | 0.9647 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.139) | 69 | 18400 | | | 9.41- 69.41 | 39.45 |
| 18.156 | 18.156 (1.139) | 100 | 7282 | | | 0.00- 45.26 | 15.61 |
| 70 Dibromomethane | | | | | CAS #: 74-95-3 | | |
| 18.375 | 18.375 (0.828) | 174 | 18939 | 1.00000 | 1.049 | 70.00- 130.00 | 100.00 |
| 18.375 | 18.375 (0.828) | 93 | 17805 | | | 69.31- 129.31 | 94.01 |
| 18.375 | 18.375 (0.828) | 95 | 14125 | | | 51.34- 111.34 | 74.58 |
| 104 Bis(2-Chloroethyl) Ether | | | | | CAS #: 111-44-4 | | |
| 24.787 | 24.787 (1.116) | 93 | 29000 | 1.00000 | 0.7385 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Bis(2-Chloroethyl) Ether (continued) | | | | | | | |
| 24.761 | 24.761 (1.115) | 95 | 9827 | | | 3.18- 63.18 | 33.89 |
| 24.761 | 24.761 (1.115) | 63 | 28465 | | | 65.44- 125.44 | 98.16 |
| 16 Pentane | | | | | CAS #: 109-66-0 | | |
| 11.400 | 11.400 (0.715) | 43 | 97730 | 1.00000 | 0.9774 | 70.00- 130.00 | 100.00 |
| 11.400 | 11.400 (0.715) | 57 | 11801 | | | 0.00- 41.87 | 12.08 |
| 11.400 | 11.400 (0.715) | 72 | 5156 | | | 0.00- 35.35 | 5.28 |
| 85 Nonane | | | | | CAS #: 111-84-2 | | |
| 22.342 | 22.342 (1.006) | 43 | 58947 | 1.00000 | 0.9802 | 70.00- 130.00 | 100.00 |
| 22.342 | 22.342 (1.006) | 57 | 38690 | | | 37.33- 97.33 | 65.64 |
| 22.342 | 22.342 (1.006) | 85 | 11342 | | | 0.00- 48.12 | 19.24 |
| 110 Undecane | | | | | CAS #: 1120-21-4 | | |
| 25.239 | 25.239 (1.137) | 57 | 116883 | 1.00000 | 1.017 | 70.00- 130.00 | 100.00 |
| 25.239 | 25.239 (1.137) | 43 | 129167 | | | 81.76- 141.76 | 110.51 |
| 25.239 | 25.239 (1.137) | 85 | 23454 | | | 0.00- 50.32 | 20.07 |
| 125 Dodecane | | | | | CAS #: 112-40-3 | | |
| 26.315 | 26.315 (1.185) | 85 | 21936 | 1.00000 | 1.010 | 70.00- 130.00 | 100.00 |
| 26.315 | 26.315 (1.185) | 57 | 94225 | | | 393.93- 453.93 | 429.55 |
| 26.315 | 26.315 (1.185) | 43 | 97554 | | | 409.24- 469.24 | 444.72 |
| 42 Ethyl Acetate | | | | | CAS #: 141-78-6 | | |
| 15.592 | 15.592 (0.979) | 70 | 7662 | 1.00000 | 0.9580 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 43 | 133466 | | | 1769.14-1829.14 | 1741.92 |
| 15.592 | 15.592 (0.979) | 61 | 22737 | | | 270.97- 330.97 | 296.75 |

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v102212.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: sn
Method File: /chem/msdv.i/22Oct2014.b/v14l1006c.m
Misc Info: 1.0ppbv (5.0ppbv)

Calibration Date: 22-OCT-2014
Calibration Time: 10:10
Client Smp ID: ICAL Level 8
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 91528 | 54917 | 128139 | 88567 | -3.24 |
| 71 1,4-Difluorobenze | 354906 | 212944 | 496868 | 365222 | 2.91 |
| 92 Chlorobenzene-d5 | 297425 | 178455 | 416395 | 277294 | -6.77 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/22Oct2014.b/v102212.d



Date : 22-OCT-2014 19:15

Client ID: ICAL Level 8

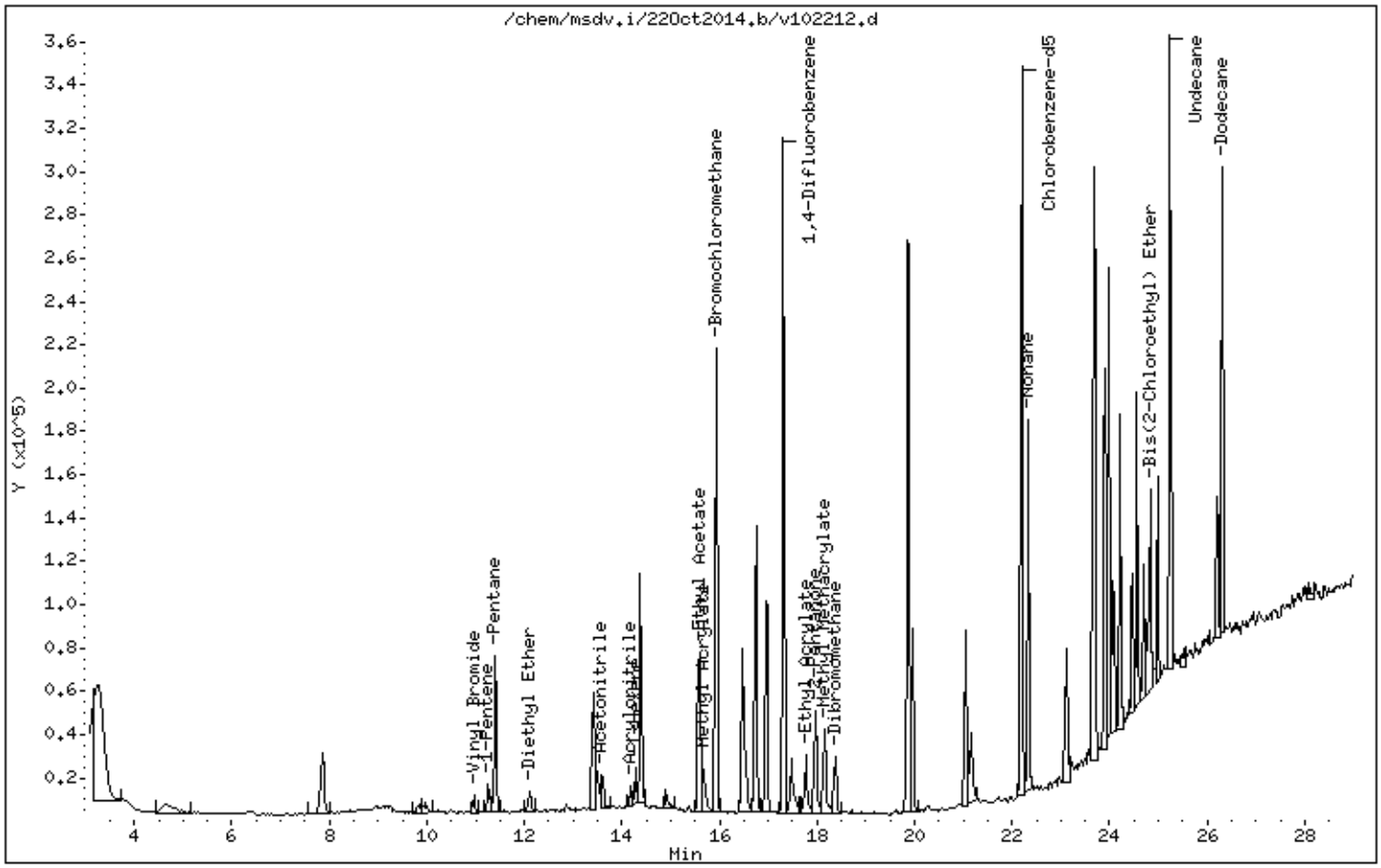
Instrument: msdv.i

Sample Info: 50mL #2687-31

Operator: sn

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101710.d
Lab Smp Id: ICAL Level 8
Inj Date : 17-OCT-2014 16:02
Operator : gd Inst ID: msdv.i
Smp Info : 50mL# 2687-10
Misc Info : 1.0ppbv (5.0ppbv) AT-1
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 16:02 Cal File: v101710.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.947 (1.000) | 130 | 101709 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.947 (1.000) | 128 | 79383 | | | 48.18- 108.18 | 78.05 |
| 15.933 | 15.916 (1.000) | 49 | 222637 | | | 210.53- 270.53 | 218.90 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.318 (1.000) | 114 | 429028 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.318 (1.000) | 88 | 69132 | | | 0.00- 45.98 | 16.11 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.219 (1.000) | 117 | 332991 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 187884 | | | 28.41- 88.41 | 56.42 |
| 1 Freon134a | | | | | CAS #: 811-97-2 | | |
| 4.485 | 4.560 (0.281) | 83 | 22153 | 1.00000 | 1.036 | 70.00- 130.00 | 100.00 |
| 4.485 | 4.560 (0.281) | 69 | 18687 | | | 55.07- 115.07 | 84.35 |
| 2 Freon 152A | | | | | CAS #: 75-37-6 | | |
| 4.976 | 5.051 (0.312) | 65 | 13011 | 1.00000 | 1.030 | 70.00- 130.00 | 100.00 |
| 4.976 | 5.051 (0.312) | 51 | 39608 | | | 272.07- 332.07 | 304.42 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 5.731 | 5.806 (0.360) | 51 | 55447 | 1.00000 | 0.9763 | 70.00- 130.00 | 100.00 |
| 5.731 | 5.806 (0.360) | 67 | 6942 | | | 0.00- 41.79 | 12.52 |
| 7.015 | 5.806 (0.440) | 85 | 6817 | | | 0.00- 37.94 | 12.29 |
| 14 Fr21 | | | | | CAS #: 75-43-4 | | |
| 11.280 | 11.280 (0.708) | 67 | 62728 | 1.00000 | 0.9952 | 70.00- 130.00 | 100.00 |
| 11.280 | 11.280 (0.708) | 69 | 19917 | | | 0.49- 60.49 | 31.75 |
| 11.280 | 11.280 (0.708) | 47 | 10397 | | | 0.00- 45.46 | 16.57 |
| 205 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 23.111 | 23.111 (1.041) | 58 | 46379 | 1.00000 | 0.9548 | 70.00- 130.00 | 100.00 |
| 23.111 | 23.111 (1.041) | 43 | 108309 | | | 201.02- 261.02 | 233.53 |
| 206 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 17.469 | 17.469 (1.010) | 56 | 42172 | 1.00000 | 0.9635 | 70.00- 130.00 | 100.00 |
| 17.469 | 17.469 (1.010) | 41 | 37690 | | | 53.11- 113.11 | 89.37 |
| 17.469 | 17.469 (1.010) | 43 | 27659 | | | 32.89- 92.89 | 65.59 |
| 204 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 21.152 | 21.116 (1.222) | 56 | 23968 | 1.00000 | 0.9636 | 70.00- 130.00 | 100.00 |
| 21.152 | 21.116 (1.222) | 73 | 6930 | | | 1.67- 61.67 | 28.91 |
| 21.152 | 21.116 (1.222) | 43 | 74653 | | | 283.51- 343.51 | 311.47 |
| 56 1,1-Dicholoropropene | | | | | CAS #: 563-58-6 | | |
| 16.457 | 16.458 (1.033) | 110 | 19722 | 1.00000 | 1.058 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.458 (1.033) | 75 | 52088 | | | 249.21- 309.21 | 264.11 |
| 91 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 22.343 | 22.343 (1.006) | 131 | 54275 | 1.00000 | 0.9852 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 117 | 38980 | | | 40.73- 100.73 | 71.82 |
| 22.343 | 22.343 (1.006) | 95 | 21652 | | | 8.70- 68.70 | 39.89 |
| 105 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 23.936 | 23.936 (1.078) | 110 | 23842 | 1.00000 | 0.9836 | 70.00- 130.00 | 100.00 |
| 23.936 | 23.936 (1.078) | 75 | 67939 | | | 248.74- 308.74 | 284.96 |
| 23.910 | 23.936 (1.077) | 61 | 24178 | | | 67.24- 127.24 | 101.41 |
| 97 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 23.884 | 23.884 (1.076) | 156 | 42172 | 1.00000 | 1.009 | 70.00- 130.00 | 100.00 |
| 23.884 | 23.884 (1.076) | 158 | 40877 | | | 70.23- 130.23 | 96.93 |
| 23.884 | 23.884 (1.076) | 77 | 79363 | | | 166.97- 226.97 | 188.19 |
| 107 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 24.090 | 24.091 (1.085) | 126 | 23464 | 1.00000 | 1.019 | 70.00- 130.00 | 100.00 |
| 24.090 | 24.091 (1.085) | 91 | 65539 | | | 263.05- 323.05 | 279.32 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 107 2-Chlorotoluene (continued) | | | | | | | |
| 24.065 | 24.091 (1.084) | 65 | 8773 | | | 6.34- 66.34 | 37.39 |
| 109 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 24.194 | 24.194 (1.090) | 126 | 19039 | 1.00000 | 0.9084 | 70.00- 130.00 | 100.00 |
| 24.194 | 24.194 (1.090) | 91 | 55759 | | | 237.89- 297.89 | 292.87 |
| 24.194 | 24.194 (1.090) | 63 | 9802 | | | 17.19- 77.19 | 51.48 |
| 115 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 24.477 | 24.477 (1.102) | 119 | 51527 | 1.00000 | 0.9533 | 70.00- 130.00 | 100.00 |
| 24.477 | 24.477 (1.102) | 134 | 13448 | | | 0.00- 54.70 | 26.10 |
| 24.477 | 24.477 (1.102) | 91 | 34123 | | | 37.96- 97.96 | 66.22 |
| 119 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 24.709 | 24.710 (1.113) | 105 | 65159 | 1.00000 | 0.9208 | 70.00- 130.00 | 100.00 |
| 24.709 | 24.710 (1.113) | 134 | 13773 | | | 0.00- 51.17 | 21.14 |
| 24.709 | 24.710 (1.113) | 91 | 10926 | | | 0.00- 46.66 | 16.77 |
| 116 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 24.835 | 24.835 (1.118) | 119 | 66439 | 1.00000 | 0.9577 | 70.00- 130.00 | 100.00 |
| 24.835 | 24.835 (1.118) | 134 | 18253 | | | 0.00- 57.73 | 27.47 |
| 24.835 | 24.835 (1.118) | 91 | 16265 | | | 0.00- 54.71 | 24.48 |
| 123 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 25.261 | 25.261 (1.138) | 134 | 23046 | 1.00000 | 1.042 | 70.00- 130.00 | 100.00 |
| 25.261 | 25.261 (1.138) | 91 | 80022 | | | 322.95- 382.95 | 347.23 |
| 25.261 | 25.261 (1.138) | 92 | 40669 | | | 154.37- 214.37 | 176.47 |
| 129 1,2-dibromo-3-chloropropane | | | | | CAS #: 96-12-8 | | |
| 26.225 | 26.203 (1.181) | 157 | 29075 | 1.00000 | 0.9741 | 70.00- 130.00 | 100.00 |
| 26.203 | 26.203 (1.180) | 75 | 26724 | | | 60.30- 120.30 | 91.91 |
| 26.225 | 26.203 (1.181) | 155 | 23301 | | | 49.02- 109.02 | 80.14 |
| 83 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 21.044 | 21.045 (1.216) | 76 | 60386 | 1.00000 | 1.011 | 70.00- 130.00 | 100.00 |
| 21.044 | 21.045 (1.216) | 41 | 70432 | | | 86.61- 146.61 | 116.64 |
| 21.044 | 21.045 (1.216) | 78 | 18385 | | | 2.78- 62.78 | 30.45 |

Report Date: 20-Oct-2014 08:42

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101710.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 1.0ppbv (5.0ppbv) AT-1

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 101709 | -12.77 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 429028 | -10.70 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 332991 | -15.05 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101710.d



Date : 17-OCT-2014 16:02

Client ID:

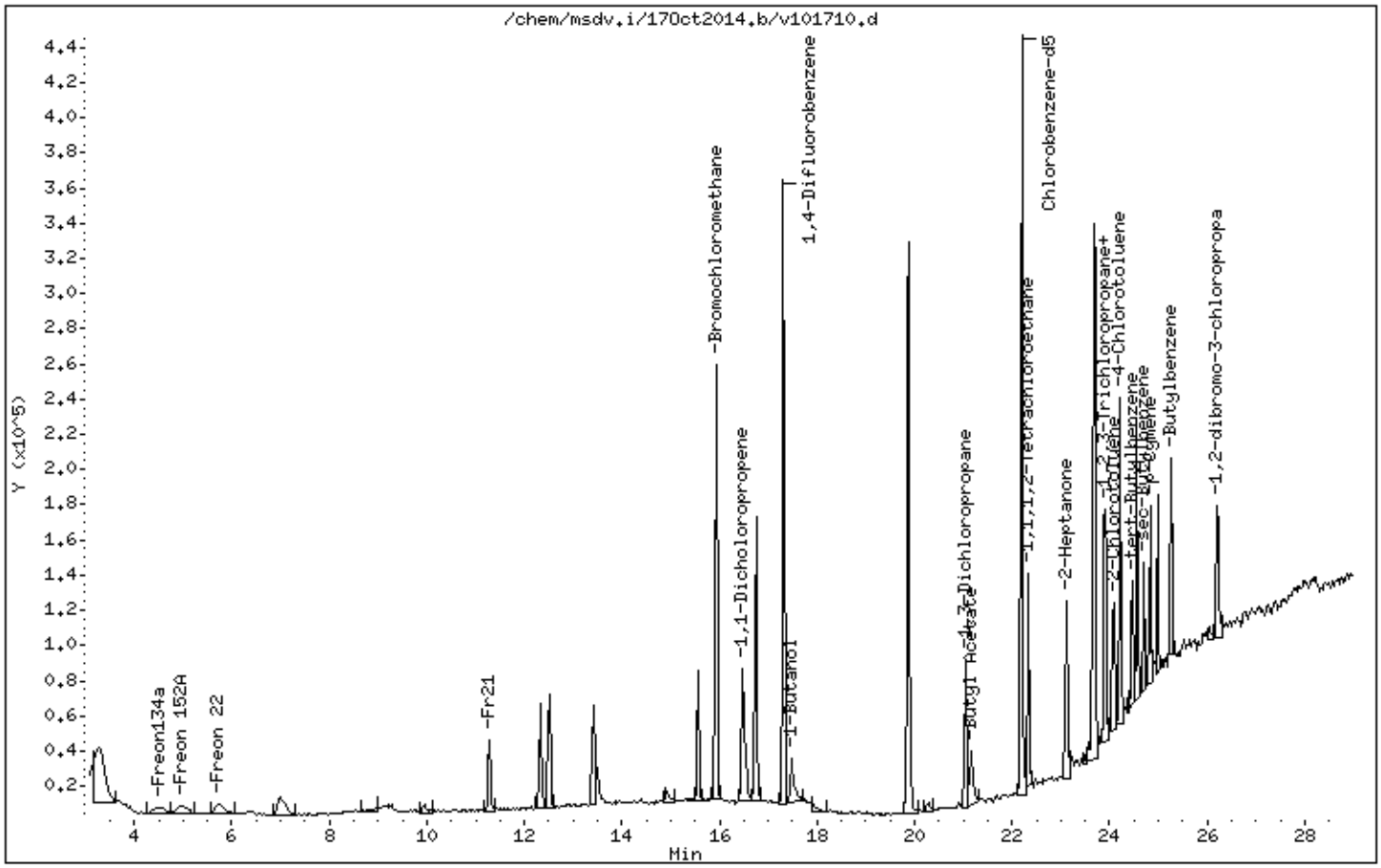
Instrument: msdv.i

Sample Info: 50mL# 2687-10

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101707.d
Lab Smp Id: ICAL Level 8
Inj Date : 17-OCT-2014 13:40
Operator : ef Inst ID: msdv.i
Smp Info : 50mL# 2687-8
Misc Info : 1.0ppbv (5.0ppbv) Oxygenates
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 16:02 Cal File: v101710.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.947 (1.000) | 130 | 105548 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.947 (1.000) | 128 | 79076 | | | 48.18- 108.18 | 74.92 |
| 15.933 | 15.916 (1.000) | 49 | 225955 | | | 210.53- 270.53 | 214.08 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.318 (1.000) | 114 | 438412 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.318 (1.000) | 88 | 69246 | | | 0.00- 45.98 | 15.79 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.219 (1.000) | 117 | 337599 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 195740 | | | 28.41- 88.41 | 57.98 |
| 38 tert-butyl alcohol | | | | | | CAS #: 75-65-0 | |
| 13.859 | 13.859 (0.870) | 59 | 96110 | 1.00000 | 0.9774 | 80.00- 120.00 | 100.00 |
| 13.859 | 13.859 (0.870) | 41 | 31728 | | | 1.21- 61.21 | 33.01 |
| 13.859 | 13.859 (0.870) | 57 | 9426 | | | 0.00- 40.48 | 9.81 |
| 45 Isopropyl ether | | | | | | CAS #: 108-20-3 | |
| 14.738 | 14.738 (0.925) | 45 | 208086 | 1.00000 | 0.9758 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 45 Isopropyl ether (continued) | | | | | | | | |
| 14.738 | 14.738 | (0.925) | 87 | 28321 | | | 0.00- 43.46 | 13.61 |
| 14.738 | 14.738 | (0.925) | 59 | 18188 | | | 0.00- 38.28 | 8.74 |
| 49 Ethyl-tert-butyl ether | | | | | | CAS #: 637-92-3 | | |
| 15.240 | 15.240 | (0.956) | 59 | 163265 | 1.00000 | 0.9928 | 80.00- 120.00 | 100.00 |
| 15.240 | 15.240 | (0.956) | 87 | 46277 | | | 0.00- 58.99 | 28.34 |
| 15.240 | 15.240 | (0.956) | 41 | 37450 | | | 0.00- 55.20 | 22.94 |
| 66 tert-amyl methyl ether | | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 | (0.971) | 87 | 27020 | 1.00000 | 0.9728 | 80.00- 120.00 | 100.00 |
| 16.810 | 16.810 | (0.971) | 73 | 113331 | | | 391.10- 451.10 | 419.43 |
| 16.810 | 16.810 | (0.971) | 55 | 43507 | | | 132.07- 192.07 | 161.02 |

Report Date: 20-Oct-2014 08:42

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101707.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 1.0ppbv (5.0ppbv) Oxygenates

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 105548 | -9.47 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 438412 | -8.74 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 337599 | -13.87 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101707.d



Date : 17-OCT-2014 13:40

Client ID:

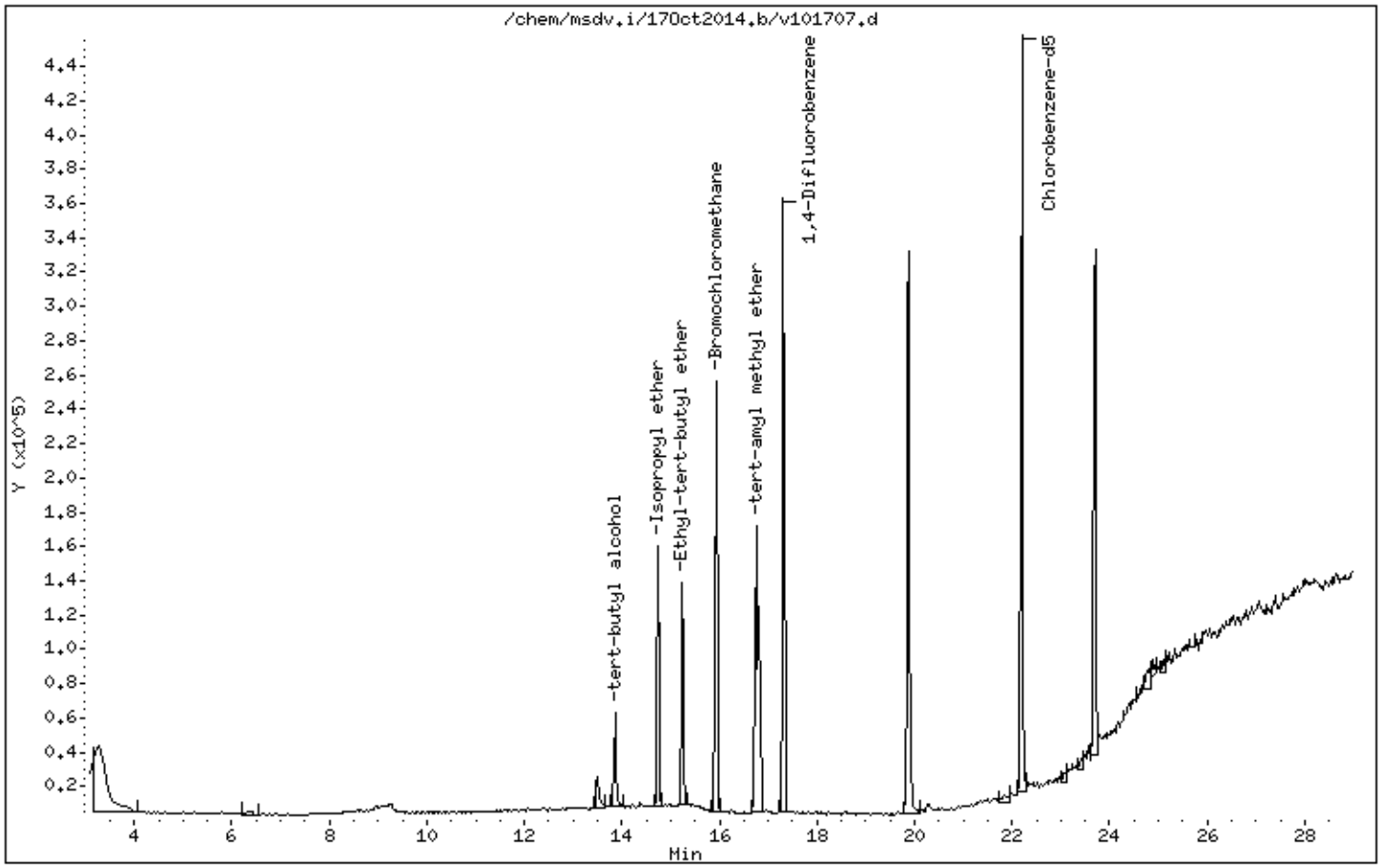
Instrument: msdv.i

Sample Info: 50mL# 2687-8

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100710.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 07-OCT-2014 19:25
Operator : gd Inst ID: msdv.i
Smp Info : 50mL #2677-286
Misc Info : 1.0ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 22:27 gdelacru Quant Type: ISTD
Cal Date : 07-OCT-2014 19:25 Cal File: v100710.d
Als bottle: 4 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.934 (1.000) | 130 | 104193 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.934 (1.000) | 128 | 82714 | | | 48.21- 108.21 | 79.39 |
| 15.933 | 15.934 (1.000) | 49 | 258036 | | | 215.61- 275.61 | 247.65 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 453289 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 75261 | | | 0.00- 46.17 | 16.60 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 342684 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 207275 | | | 29.34- 89.34 | 60.49 |
| 76 Octane | | | | | | CAS #: 111-65-9 | |
| 19.968 | 19.968 (1.154) | 57 | 38744 | 1.00000 | 0.9816 | 80.00- 120.00 | 100.00 |
| 19.968 | 19.968 (1.154) | 85 | 28265 | | | 45.62- 105.62 | 72.95 |
| 19.968 | 19.968 (1.154) | 43 | 125508 | | | 293.94- 353.94 | 323.94 |
| 99 Decane | | | | | | CAS #: 124-18-5 | |
| 23.987 | 23.987 (1.080) | 57 | 101579 | 1.00000 | 0.9665 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 99 Decane (continued) | | | | | | | | |
| 23.987 | 23.987 | (1.080) | 71 | 29410 | | | 0.00- 57.94 | 28.95 |
| 23.987 | 23.987 | (1.080) | 142 | 2781 | | | 0.00- 33.26 | 2.74 |
| 117 Indene | | | | | | CAS #: 95-13-6 | | |
| 25.485 | 25.485 | (1.148) | 115 | 48842 | 1.00000 | 0.9975 | 80.00- 120.00 | 100.00(T) |
| 25.485 | 25.485 | (1.148) | 116 | 43211 | | | 67.11- 127.11 | 88.47 |
| 0.000 | 25.485 | (0.000) | 0 | 0 | | | 0.00- 30.00 | 0.00 |
| 121 1,2,3-trimethylbenzene | | | | | | CAS #: 526-73-8 | | |
| 24.992 | 24.992 | (1.125) | 120 | 28024 | 1.00000 | 0.9700 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 | (1.125) | 105 | 62500 | | | 192.71- 252.71 | 223.02 |
| 24.992 | 24.992 | (1.125) | 77 | 8919 | | | 2.83- 62.83 | 31.83 |

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 08-Oct-2014 08:26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100710.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 1.0ppbv (5.0ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 104193 | -15.12 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 453289 | -9.08 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 342684 | -13.89 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/07Oct2014.b/v100710.d



Date : 07-OCT-2014 19:25

Client ID: Level 8

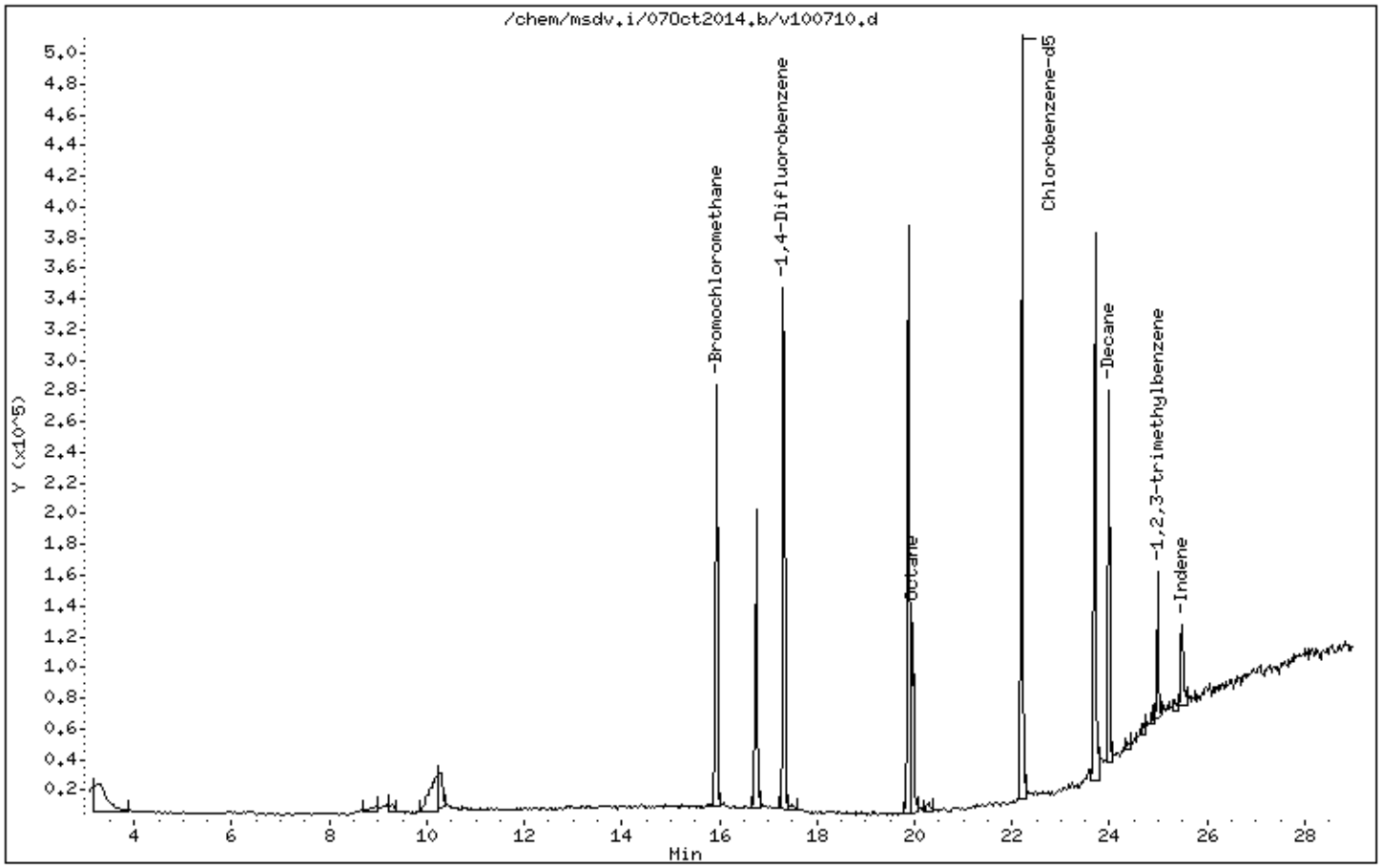
Instrument: msdv.i

Sample Info: 50mL #2677-286

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100609.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 06-OCT-2014 16:43
Operator : ef Inst ID: msdv.i
Smp Info : 250mL #2677-278
Misc Info : 1.0ppbv (1.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 16:43 Cal File: v100609.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.934 (1.000) | 130 | 123502 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 93017 | | | 47.54- 107.54 | 75.32 |
| 15.934 | 15.934 (1.000) | 49 | 307499 | | | 218.45- 278.45 | 248.98 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 487832 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 76211 | | | 0.00- 46.16 | 15.62 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 379868 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 222379 | | | 29.12- 89.12 | 58.54 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 215841 | 5.00000 | 4.762 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 110773 | | | 28.37- 88.37 | 51.32 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 467252 | 5.00000 | 4.982 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 55255 | | | 0.00- 41.90 | 11.83 |

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    297236                    33.85-  93.85    63.61
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    150924 5.00000    4.620  70.00- 130.00   100.00
 23.704  23.704 (1.067)    95    196819                   99.95- 159.95   130.41
 23.704  23.704 (1.067)   176    147493                   67.64- 127.64    97.73
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.711   4.711 (0.296)    41     75566 1.00000    1.091  70.00- 130.00   100.00
  4.749   4.749 (0.298)    42     48652                   35.18-  95.18    64.38
  4.825   4.825 (0.303)    39     60253                   44.12- 104.12    79.74
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.240 (0.329)    85    111133 1.00000   0.9605  70.00- 130.00   100.00
  5.202   5.202 (0.326)    87     34723                    1.90-  61.90    31.24
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.750   6.750 (0.424)   135     77607 1.00000   0.9392  70.00- 130.00   100.00
  6.750   6.750 (0.424)   137     23885                    0.53-  60.53    30.78
  6.750   6.750 (0.424)    85    117691                  121.37- 181.37   151.65
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.128   7.128 (0.447)    50     64598 1.00000   0.9264  70.00- 130.00   100.00
  7.090   7.090 (0.445)    52     20713                    1.81-  61.81    32.06
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.885   7.885 (0.495)    58     11825 1.00000    1.012  70.00- 130.00   100.00
  7.885   7.885 (0.495)    43    125351                 1065.18-1125.18  1060.05
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62     49815 1.00000   0.9574  70.00- 130.00   100.00
  8.040   8.040 (0.505)    64     14318                    0.00-  58.65    28.74
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.288   8.288 (0.520)    54     48368 1.00000   0.9482  70.00- 130.00   100.00
  8.288   8.288 (0.520)    39     67150                  107.15- 167.15   138.83
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.859   9.859 (0.619)    94     27654 1.00000   0.8669  70.00- 130.00   100.00
  9.859   9.859 (0.619)    96     26004                   72.12- 132.12    94.03
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.365  10.365 (0.650)    64     22497 1.00000   0.9303  70.00- 130.00   100.00
 10.365  10.365 (0.650)    66      6300                    0.00-  59.90    28.00
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 45796 | 1.00000 | 0.9194 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 95085 | | | 171.32- 231.32 | 207.63 |
| 10.533 | 10.533 (0.661) | 42 | 85969 | | | 150.03- 210.03 | 187.72 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.184 | 11.184 (0.702) | 101 | 112399 | 1.00000 | 0.9437 | 70.00- 130.00 | 100.00 |
| 11.184 | 11.184 (0.702) | 103 | 74735 | | | 36.54- 96.54 | 66.49 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.156 | 12.156 (0.763) | 45 | 18618 | 1.00000 | 0.7374 | 70.00- 130.00 | 100.00 |
| 12.156 | 12.156 (0.763) | 46 | 6225 | | | 8.51- 68.51 | 33.44 |
| 12.129 | 12.129 (0.761) | 43 | 4365 | | | 0.00- 54.10 | 23.45 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.569 | 12.569 (0.789) | 98 | 24299 | 1.00000 | 0.9130 | 70.00- 130.00 | 100.00 |
| 12.569 | 12.569 (0.789) | 61 | 88588 | | | 320.65- 380.65 | 364.57 |
| 12.569 | 12.569 (0.789) | 96 | 40793 | | | 134.30- 194.30 | 167.88 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.596 | 12.596 (0.791) | 151 | 70271 | 1.00000 | 0.9802 | 70.00- 130.00 | 100.00 |
| 12.596 | 12.596 (0.791) | 153 | 44900 | | | 33.10- 93.10 | 63.90 |
| 12.569 | 12.569 (0.789) | 101 | 88818 | | | 96.37- 156.37 | 126.39 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.843 | 12.843 (0.806) | 58 | 28114 | 1.00000 | 0.9635 | 70.00- 130.00 | 100.00 |
| 12.843 | 12.843 (0.806) | 43 | 136408 | | | 413.15- 473.15 | 485.20 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.926 | 12.926 (0.811) | 76 | 111150 | 1.00000 | 0.9819 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.393 | 13.393 (0.841) | 76 | 14626 | 1.00000 | 0.8953 | 70.00- 130.00 | 100.00 |
| 13.393 | 13.393 (0.841) | 41 | 80770 | | | 547.03- 607.03 | 552.24 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.200 | 13.200 (0.828) | 45 | 125731 | 1.00000 | 0.9305 | 70.00- 130.00 | 100.00 |
| 13.200 | 13.200 (0.828) | 43 | 29224 | | | 0.00- 50.74 | 23.24 |
| 13.200 | 13.200 (0.828) | 59 | 3307 | | | 0.00- 32.83 | 2.63 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.667 | 13.667 (0.858) | 84 | 34801 | 1.00000 | 0.9269 | 70.00- 130.00 | 100.00 |
| 13.667 | 13.667 (0.858) | 49 | 84002 | | | 212.37- 272.37 | 241.38 |
| 13.667 | 13.667 (0.858) | 51 | 27059 | | | 43.31- 103.31 | 77.75 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 107633 | 1.00000 | 0.9089 | 70.00- 130.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41     34165                     1.97-  61.97    31.74
 13.859  13.859 (0.870)    57     10680                     0.00-  40.67     9.92
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 14.024  14.024 (0.880)    73    125261 1.00000   0.9299  70.00- 130.00   100.00
 13.997  13.997 (0.878)    57     38296                     2.99-  62.99    30.57
 13.997  13.997 (0.878)    41     56554                    12.12-  72.12    45.15
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.052  14.052 (0.882)    98     24524 1.00000   0.9738  70.00- 130.00   100.00
 14.052  14.052 (0.882)    61     75632                   293.73- 353.73   308.40
 14.052  14.052 (0.882)    96     42638                   146.88- 206.88   173.86
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57    103399 1.00000   0.9593  70.00- 130.00   100.00
 14.381  14.381 (0.903)    43     88948                    57.65- 117.65    86.02
 14.408  14.408 (0.904)    86     10978                     0.00-  40.67    10.62
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45    261286 1.00000   0.9331  70.00- 130.00   100.00
 14.738  14.738 (0.925)    87     35106                     0.00-  43.44    13.44
 14.738  14.738 (0.925)    59     21604                     0.00-  38.34     8.27
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63     98131 1.00000   0.9381  70.00- 130.00   100.00
 14.765  14.765 (0.927)    65     29002                     0.37-  60.37    29.55
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86      9522 1.00000   0.8918  70.00- 130.00   100.00
 14.793  14.793 (0.928)    42     17257                   220.92- 280.92   181.23
 14.793  14.793 (0.928)    43    337561                  3282.47-3342.47  3545.06
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59    177186 1.00000   0.9286  70.00- 130.00   100.00
 15.240  15.240 (0.956)    87     52052                     0.00-  58.71    29.38
 15.240  15.240 (0.956)    41     47716                     0.00-  56.39    26.93
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98     32378 1.00000   0.9689  70.00- 130.00   100.00
 15.592  15.592 (0.979)    61     88742                   248.69- 308.69   274.08
 15.592  15.592 (0.979)    96     51922                   132.55- 192.55   160.36
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.592 (0.979)    72     19242 1.00000   0.8860  70.00- 130.00   100.00
 15.592  15.592 (0.979)    43    165569                   794.80- 854.80   860.46
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 51 2-Butanone (continued) | | | | | | | |
| 15.592 | 15.592 (0.979) | 57 | 10023 | | | 18.01- 78.01 | 52.09 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.934 | 15.934 (1.000) | 42 | 102636 | 1.00000 | 0.9170 | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 71 | 20729 | | | 0.00- 49.03 | 20.20 |
| 15.934 | 15.934 (1.000) | 72 | 23325 | | | 0.00- 51.35 | 22.73 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 101713 | 1.00000 | 0.9773 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 65076 | | | 33.33- 93.33 | 63.98 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.273 | 16.273 (1.021) | 84 | 62171 | 1.00000 | 0.9498 | 70.00- 130.00 | 100.00 |
| 16.273 | 16.273 (1.021) | 56 | 114862 | | | 157.43- 217.43 | 184.75 |
| 16.273 | 16.273 (1.021) | 41 | 82037 | | | 105.99- 165.99 | 131.95 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 102883 | 1.00000 | 0.9467 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 61877 | | | 32.16- 92.16 | 60.14 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.458 | 16.458 (1.033) | 119 | 97041 | 1.00000 | 0.9308 | 70.00- 130.00 | 100.00 |
| 16.458 | 16.458 (1.033) | 117 | 96392 | | | 69.67- 129.67 | 99.33 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 104806 | 1.00000 | 0.9188 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 304185 | | | 258.69- 318.69 | 290.24 |
| 16.728 | 16.728 (1.050) | 41 | 114755 | | | 79.91- 139.91 | 109.49 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 136869 | 1.00000 | 0.9507 | 70.00- 130.00 | 100.00 |
| 16.783 | 16.783 (0.970) | 77 | 32961 | | | 0.00- 53.73 | 24.08 |
| 66 tert-amyl methyl ether | | | | | CAS #: 994-05-8 | | |
| 16.811 | 16.811 (0.971) | 87 | 28817 | 1.00000 | 0.8840 | 70.00- 130.00 | 100.00 |
| 16.811 | 16.811 (0.971) | 73 | 129712 | | | 399.95- 459.95 | 450.12 |
| 16.811 | 16.811 (0.971) | 55 | 55764 | | | 143.62- 203.62 | 193.51 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 84808 | 1.00000 | 0.9721 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 24589 | | | 1.11- 61.11 | 28.99 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 57080 | 1.00000 | 0.9200 | 70.00- 130.00 | 100.00 |
| 16.975 | 16.975 (0.981) | 100 | 12355 | | | 0.00- 51.27 | 21.65 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 146424 | | | 235.24- 295.24 | 256.52 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.717 | 17.717 (1.024) | 130 | 63888 | 1.00000 | 0.9858 | 70.00- 130.00 | 100.00 |
| 17.717 | 17.717 (1.024) | 95 | 62371 | | | 71.16- 131.16 | 97.63 |
| 17.717 | 17.717 (1.024) | 97 | 38788 | | | 33.04- 93.04 | 60.71 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.964 (1.038) | 83 | 79766 | 1.00000 | 0.9373 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.038) | 98 | 35846 | | | 15.02- 75.02 | 44.94 |
| 17.964 | 17.964 (1.038) | 55 | 98574 | | | 95.64- 155.64 | 123.58 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 62362 | 1.00000 | 0.9443 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 46711 | | | 45.17- 105.17 | 74.90 |
| 18.156 | 18.156 (1.049) | 41 | 58035 | | | 59.65- 119.65 | 93.06 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.266 (1.056) | 88 | 30183 | 1.00000 | 0.9094 | 70.00- 130.00 | 100.00 |
| 18.293 | 18.293 (1.057) | 58 | 33020 | | | 72.13- 132.13 | 109.40 |
| 18.293 | 18.293 (1.057) | 57 | 10650 | | | 4.41- 64.41 | 35.28 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 101297 | 1.00000 | 0.9265 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 62350 | | | 32.12- 92.12 | 61.55 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 70247 | 1.00000 | 0.9401 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 22770 | | | 1.25- 61.25 | 32.41 |
| 19.408 | 19.408 (1.122) | 39 | 68296 | | | 71.17- 131.17 | 97.22 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.610 | 19.610 (1.133) | 43 | 178069 | 1.00000 | 0.8763 | 70.00- 130.00 | 100.00 |
| 19.610 | 19.610 (1.133) | 58 | 50996 | | | 0.00- 57.24 | 28.64 |
| 19.610 | 19.610 (1.133) | 85 | 15001 | | | 0.00- 38.20 | 8.42 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 156390 | 1.00000 | 0.9842 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 89845 | | | 28.60- 88.60 | 57.45 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 69757 | 1.00000 | 0.8909 | 70.00- 130.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 26027 | | | 5.48- 65.48 | 37.31 |
| 20.435 | 20.435 (0.920) | 39 | 65795 | | | 63.15- 123.15 | 94.32 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                          CAS #: 79-00-5
 20.758  20.758 (0.935)    97     57124 1.00000   0.9553  70.00- 130.00   100.00
 20.758  20.758 (0.935)    99     36090                   32.13-  92.13    63.18
 20.758  20.758 (0.935)    83     48293                   57.82- 117.82    84.54
-------------------------------------------------------------------------------
   86 Tetrachloroethene                              CAS #: 127-18-4
 20.901  20.901 (0.941)   166     73214 1.00000   0.9470  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129     54759                   47.04- 107.04    74.79
 20.901  20.901 (0.941)   131     58955                   46.95- 106.95    80.52
-------------------------------------------------------------------------------
   87 2-Hexanone                                     CAS #: 591-78-6
 21.045  21.045 (0.948)    58     58916 1.00000   0.8799  70.00- 130.00   100.00
 21.045  21.045 (0.948)    43    167500                  242.48- 302.48   284.30
 21.045  21.045 (0.948)   100      7587                    0.00-  43.88    12.88
-------------------------------------------------------------------------------
   89 Dibromochloromethane                           CAS #: 124-48-1
 21.367  21.367 (0.962)   129    102631 1.00000   0.9222  70.00- 130.00   100.00
 21.367  21.367 (0.962)   127     81993                   50.38- 110.38    79.89
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                              CAS #: 106-93-4
 21.583  21.583 (0.972)   107     82292 1.00000   0.8834  70.00- 130.00   100.00
 21.583  21.583 (0.972)   109     77266                   62.69- 122.69    93.89
-------------------------------------------------------------------------------
   93 Chlorobenzene                                  CAS #: 108-90-7
 22.233  22.233 (1.001)   112    121049 1.00000   0.9704  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114     35726                    1.62-  61.62    29.51
 22.233  22.233 (1.001)    77     76045                   38.66-  98.66    62.82
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                  CAS #: 100-41-4
 22.315  22.315 (1.005)   106     50181 1.00000   0.8962  70.00- 130.00   100.00
 22.315  22.315 (1.005)    91    163155                  292.36- 352.36   325.13
-------------------------------------------------------------------------------
   96 m,p-Xylene                                     CAS #: 108-38-3
 22.480  22.480 (1.012)   106     49187 1.00000   0.8909  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91     89737                  164.15- 224.15   182.44
-------------------------------------------------------------------------------
  100 o-Xylene                                       CAS #: 95-47-6
 23.002  23.002 (1.036)   106     45454 1.00000   0.8848  70.00- 130.00   100.00
 23.002  23.002 (1.036)    91     95717                  186.63- 246.63   210.58
-------------------------------------------------------------------------------
  101 Styrene                                        CAS #: 100-42-5
 23.029  23.029 (1.037)   104     64209 1.00000   0.8543  70.00- 130.00   100.00
 23.029  23.029 (1.037)    78     32650                   28.70-  88.70    50.85
-------------------------------------------------------------------------------
  102 Bromoform                                      CAS #: 75-25-2
 23.331  23.331 (1.051)   173     80613 1.00000   0.8546  70.00- 130.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 41159 | | | 20.40- 80.40 | 51.06 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 133490 | 1.00000 | 0.8898 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 33617 | | | 0.00- 57.73 | 25.18 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 111923 | 1.00000 | 0.9712 | 70.00- 130.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 69879 | | | 34.81- 94.81 | 62.43 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 107171 | 1.00000 | 0.8054 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 24139 | | | 0.00- 53.83 | 22.52 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 74672 | 1.00000 | 0.7649 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 22648 | | | 0.18- 60.18 | 30.33 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 76106 | 1.00000 | 0.9337 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 34625 | | | 20.44- 80.44 | 45.50 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 55600 | 1.00000 | 0.8422 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 25682 | | | 19.27- 79.27 | 46.19 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 54021 | 1.00000 | 0.8480 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 33717 | | | 38.48- 98.48 | 62.41 |
| 24.902 | 24.902 (1.121) | 111 | 21463 | | | 10.49- 70.49 | 39.73 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 48298 | 1.00000 | 0.8065 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 32956 | | | 38.92- 98.92 | 68.23 |
| 24.992 | 24.992 (1.125) | 111 | 19809 | | | 11.61- 71.61 | 41.01 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.127 | 25.127 (1.132) | 91 | 51707 | 1.00000 | 0.8081 | 70.00- 130.00 | 100.00 |
| 25.127 | 25.127 (1.132) | 126 | 12325 | | | 0.00- 52.82 | 23.84 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.396 | 25.396 (1.144) | 146 | 50442 | 1.00000 | 0.8534 | 70.00- 130.00 | 100.00 |
| 25.396 | 25.396 (1.144) | 148 | 32405 | | | 36.09- 96.09 | 64.24 |
| 25.396 | 25.396 (1.144) | 111 | 21486 | | | 13.38- 73.38 | 42.60 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 37913 | 1.00000 | 0.8741 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 37762 | | | 64.14- 124.14 | 99.60 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.167 (1.223) | 225 | 27652 | 1.00000 | 0.7623 | 70.00- 130.00 | 100.00 |
| 27.167 | 27.167 (1.223) | 223 | 18253 | | | 44.27- 104.27 | 66.01 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.391 (1.234) | 128 | 12855 | 0.10000 | 0.1251 | 70.00- 130.00 | 100.00 |
| 27.368 | 27.368 (1.232) | 127 | 3347 | | | 0.00- 47.41 | 26.04 |

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100609.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 123502 | -1.28 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 487832 | -2.08 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 379868 | -6.53 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100609.d



Date : 06-OCT-2014 16:43

Client ID: Level 8

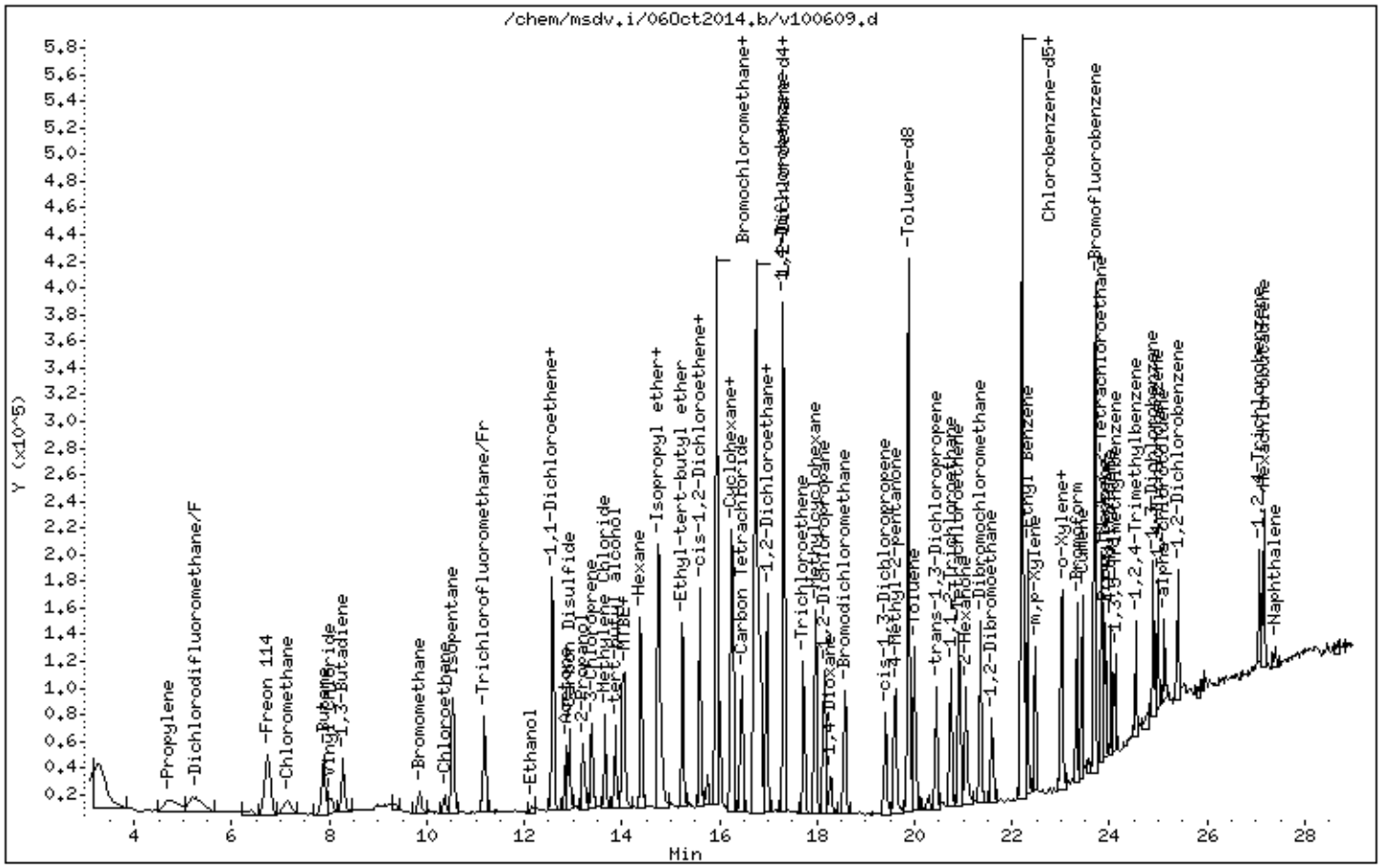
Instrument: msdv.i

Sample Info: 250mL #2677-278

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem1/msdv.i/22Oct2014.b/v102208.d
Lab Smp Id: ICAL Level 9 Client Smp ID: ICAL Level 9
Inj Date : 22-OCT-2014 15:31
Operator : ef Inst ID: msdv.i
Smp Info : 125mL# 2689-31
Misc Info : 5.0ppbv (5.0ppbv) Combo
Comment : Low Level GC-MS
Method : /chem1/msdv.i/22Oct2014.b/v14l1006c.m
Meth Date : 22-Oct-2014 20:02 snguyen Quant Type: ISTD
Cal Date : 22-OCT-2014 15:31 Cal File: v102208.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT7-AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.934 (1.000) | 130 | 90325 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 66075 | | | 47.58- 107.58 | 73.15 |
| 15.934 | 15.934 (1.000) | 49 | 204214 | | | 212.40- 272.40 | 226.09 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 362306 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 58626 | | | 0.00- 46.08 | 16.18 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 271171 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 154618 | | | 28.82- 88.82 | 57.02 |
| 13 Vinyl Bromide | | | | | | CAS #: 593-60-2 | |
| 10.967 | 10.967 (0.688) | 106 | 55228 | 5.00000 | 4.903 | 70.00- 130.00 | 100.00 |
| 10.967 | 10.967 (0.688) | 108 | 51408 | | | 69.86- 129.86 | 93.08 |
| 15 1-Pentene | | | | | | CAS #: 109-67-1 | |
| 11.256 | 11.256 (0.706) | 55 | 42961 | 5.00000 | 4.767 | 70.00- 130.00 | 100.00 |
| 11.256 | 11.256 (0.706) | 42 | 72346 | | | 142.41- 202.41 | 168.40 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 19 Diethyl Ether | | | | | CAS #: 60-29-7 | | |
| 12.102 | 12.102 (0.760) | 74 | 25087 | 5.00000 | 5.083 | 70.00- 130.00 | 100.00(T) |
| 12.102 | 12.102 (0.760) | 59 | 48040 | | | 162.36- 222.36 | 191.49 |
| 0.000 | 1.000 (0.000) | 31 | 0 | | | 0.00- 30.00 | 0.00 |
| 26 Acetonitrile | | | | | CAS #: 75-05-8 | | |
| 13.475 | 13.475 (0.846) | 41 | 239071 | 5.00000 | 6.350 | 70.00- 130.00 | 100.00 |
| 13.475 | 13.475 (0.846) | 40 | 94844 | | | 15.69- 75.69 | 39.67 |
| 13.420 | 13.420 (0.842) | 39 | 152008 | | | 25.67- 85.67 | 63.58 |
| 32 Acrylonitrile | | | | | CAS #: 107-13-1 | | |
| 14.161 | 14.161 (0.889) | 53 | 109066 | 5.00000 | 5.541 | 70.00- 130.00 | 100.00 |
| 14.161 | 14.161 (0.889) | 52 | 93917 | | | 54.38- 114.38 | 86.11 |
| 41 1-Hexene | | | | | CAS #: 592-41-6 | | |
| 14.271 | 14.271 (0.896) | 55 | 31839 | 5.00000 | 4.814 | 70.00- 130.00 | 100.00 |
| 14.271 | 14.271 (0.896) | 41 | 58216 | | | 152.85- 212.85 | 182.84 |
| 14.271 | 14.271 (0.896) | 84 | 8045 | | | 0.00- 53.17 | 25.27 |
| 44 Methyl Acrylate | | | | | CAS #: 96-33-3 | | |
| 15.675 | 15.675 (0.984) | 55 | 275376 | 5.00000 | 5.878 | 70.00- 130.00 | 100.00 |
| 15.675 | 15.675 (0.984) | 85 | 23912 | | | 0.00- 38.30 | 8.68 |
| 15.675 | 15.675 (0.984) | 58 | 18911 | | | 0.00- 37.05 | 6.87 |
| 60 Ethyl Acrylate | | | | | CAS #: 140-88-5 | | |
| 17.772 | 17.772 (1.115) | 99 | 17624 | 5.00000 | 6.911 | 70.00- 130.00 | 100.00 |
| 17.772 | 17.772 (1.115) | 45 | 39517 | | | 301.40- 361.40 | 224.22 |
| 17.772 | 17.772 (1.115) | 55 | 338193 | | | 2545.61-2605.61 | 1918.93 |
| 62 2-Pentanone | | | | | CAS #: 107-87-9 | | |
| 17.964 | 17.964 (1.127) | 43 | 594011 | 5.00000 | 5.094 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.127) | 58 | 36694 | | | 0.00- 35.77 | 6.18 |
| 17.964 | 17.964 (1.127) | 86 | 57565 | | | 0.00- 39.16 | 9.69 |
| 67 Methyl Methacrylate | | | | | CAS #: 80-62-6 | | |
| 18.156 | 18.156 (1.139) | 41 | 256846 | 5.00000 | 5.210 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.139) | 69 | 104576 | | | 9.41- 69.41 | 40.72 |
| 18.156 | 18.156 (1.139) | 100 | 37301 | | | 0.00- 45.26 | 14.52 |
| 70 Dibromomethane | | | | | CAS #: 74-95-3 | | |
| 18.376 | 18.376 (0.828) | 174 | 96062 | 5.00000 | 5.443 | 70.00- 130.00 | 100.00 |
| 18.376 | 18.376 (0.828) | 93 | 89274 | | | 69.31- 129.31 | 92.93 |
| 18.376 | 18.376 (0.828) | 95 | 77715 | | | 51.34- 111.34 | 80.90 |
| 104 Bis(2-Chloroethyl) Ether | | | | | CAS #: 111-44-4 | | |
| 24.761 | 24.761 (1.115) | 93 | 177184 | 5.00000 | 4.614 | 70.00- 130.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Bis(2-Chloroethyl) Ether (continued) | | | | | | | |
| 24.761 | 24.761 (1.115) | 95 | 60405 | | | 3.18- 63.18 | 34.09 |
| 24.761 | 24.761 (1.115) | 63 | 166895 | | | 65.44- 125.44 | 94.19 |
| 16 Pentane | | | | | CAS #: 109-66-0 | | |
| 11.400 | 11.400 (0.715) | 43 | 492394 | 5.00000 | 4.829 | 70.00- 130.00 | 100.00 |
| 11.400 | 11.400 (0.715) | 57 | 57925 | | | 0.00- 41.87 | 11.76 |
| 11.400 | 11.400 (0.715) | 72 | 26247 | | | 0.00- 35.35 | 5.33 |
| 85 Nonane | | | | | CAS #: 111-84-2 | | |
| 22.343 | 22.343 (1.006) | 43 | 278875 | 5.00000 | 4.742 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 57 | 189368 | | | 37.33- 97.33 | 67.90 |
| 22.343 | 22.343 (1.006) | 85 | 49335 | | | 0.00- 48.12 | 17.69 |
| 110 Undecane | | | | | CAS #: 1120-21-4 | | |
| 25.239 | 25.239 (1.137) | 57 | 569864 | 5.00000 | 5.072 | 70.00- 130.00 | 100.00 |
| 25.239 | 25.239 (1.137) | 43 | 639110 | | | 81.76- 141.76 | 112.15 |
| 25.239 | 25.239 (1.137) | 85 | 113442 | | | 0.00- 50.32 | 19.91 |
| 125 Dodecane | | | | | CAS #: 112-40-3 | | |
| 26.315 | 26.315 (1.185) | 85 | 118979 | 5.00000 | 5.605 | 70.00- 130.00 | 100.00 |
| 26.315 | 26.315 (1.185) | 57 | 534116 | | | 393.93- 453.93 | 448.92 |
| 26.315 | 26.315 (1.185) | 43 | 556171 | | | 409.24- 469.24 | 467.45 |
| 42 Ethyl Acetate | | | | | CAS #: 141-78-6 | | |
| 15.592 | 15.592 (0.979) | 70 | 43093 | 5.00000 | 5.283 | 70.00- 130.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 43 | 744806 | | | 1769.14-1829.14 | 1728.37 |
| 15.592 | 15.592 (0.979) | 61 | 128246 | | | 270.97- 330.97 | 297.60 |

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 22-Oct-2014 20:02

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v102208.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem1/msdv.i/22Oct2014.b/v14l1006c.m
Misc Info: 5.0ppbv (5.0ppbv) Combo

Calibration Date: 22-OCT-2014
Calibration Time: 10:10
Client Smp ID: ICAL Level 9
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 91528 | 54917 | 128139 | 90325 | -1.31 |
| 71 1,4-Difluorobenze | 354906 | 212944 | 496868 | 362306 | 2.09 |
| 92 Chlorobenzene-d5 | 297425 | 178455 | 416395 | 271171 | -8.83 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/22Oct2014.b/v102208.d



Date : 22-OCT-2014 15:31

Client ID: ICAL Level 9

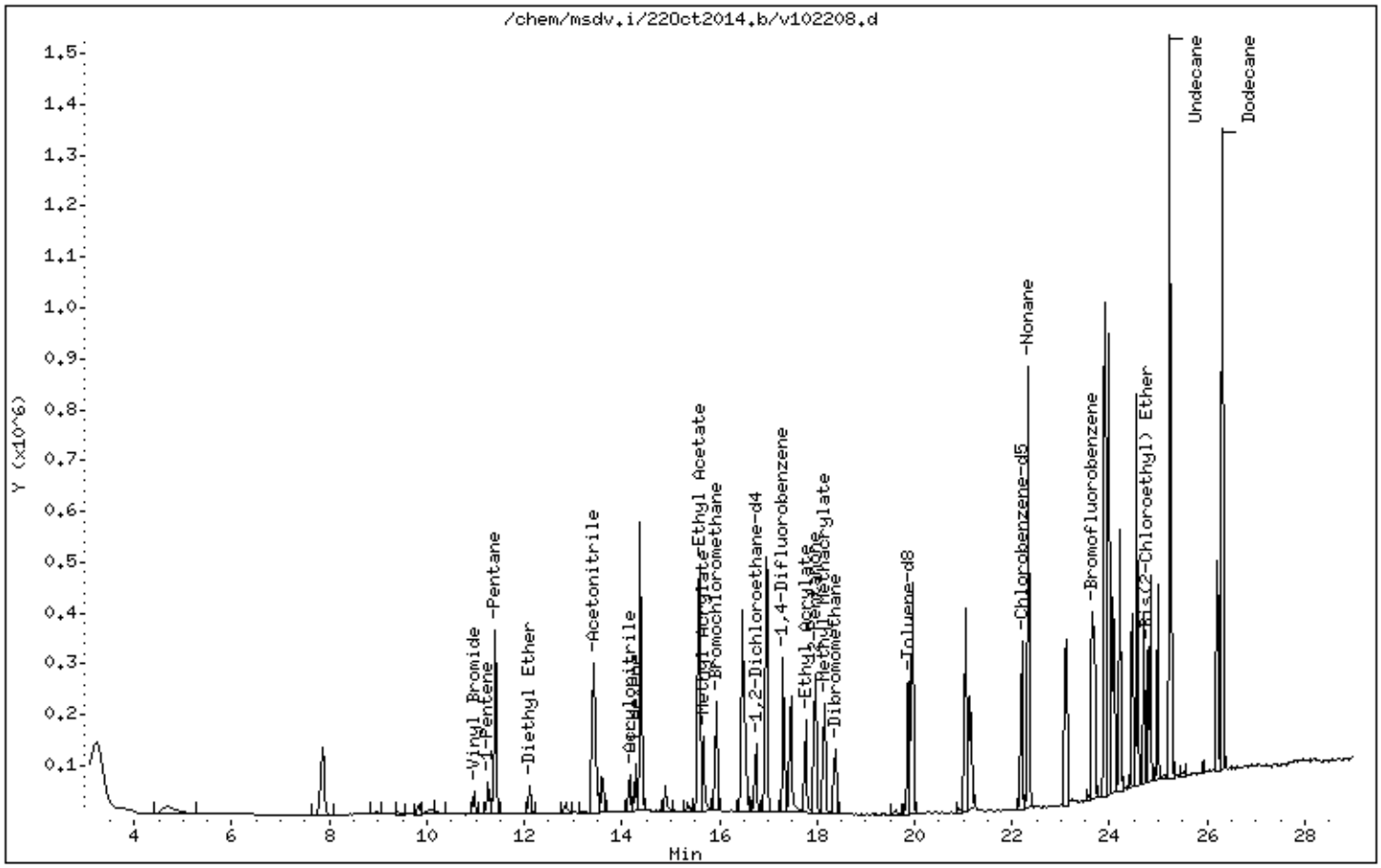
Instrument: msdv.i

Sample Info: 125mL# 2689-31

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101711.d
Lab Smp Id: ICAL Level 9
Inj Date : 17-OCT-2014 17:06
Operator : gd Inst ID: msdv.i
Smp Info : 250mL# 2687-10
Misc Info : 5.0ppbv (5.0ppbv) AT-1
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 17:06 Cal File: v101711.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.947 (1.000) | 130 | 103854 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.947 (1.000) | 128 | 80463 | | | 48.18- 108.18 | 77.48 |
| 15.934 | 15.916 (1.000) | 49 | 228749 | | | 210.53- 270.53 | 220.26 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.318 (1.000) | 114 | 441823 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.318 (1.000) | 88 | 67197 | | | 0.00- 45.98 | 15.21 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.219 (1.000) | 117 | 346519 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 195542 | | | 28.41- 88.41 | 56.43 |
| 1 Freon134a | | | | | CAS #: 811-97-2 | | |
| 4.560 | 4.560 (0.286) | 83 | 101888 | 5.00000 | 4.668 | 70.00- 130.00 | 100.00 |
| 4.598 | 4.560 (0.289) | 69 | 80179 | | | 55.07- 115.07 | 78.69 |
| 2 Freon 152A | | | | | CAS #: 75-37-6 | | |
| 5.051 | 5.051 (0.317) | 65 | 58216 | 5.00000 | 4.514 | 70.00- 130.00 | 100.00 |
| 5.051 | 5.051 (0.317) | 51 | 159974 | | | 272.07- 332.07 | 274.79 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 5.806 | 5.806 (0.364) | 51 | 269138 | 5.00000 | 4.641 | 70.00- 130.00 | 100.00 |
| 5.806 | 5.806 (0.364) | 67 | 31438 | | | 0.00- 41.79 | 11.68 |
| 5.844 | 5.806 (0.367) | 85 | 860 | | | 0.00- 37.94 | 0.32 |
| 14 Fr21 | | | | | CAS #: 75-43-4 | | |
| 11.280 | 11.280 (0.708) | 67 | 294990 | 5.00000 | 4.584 | 70.00- 130.00 | 100.00 |
| 11.280 | 11.280 (0.708) | 69 | 91468 | | | 0.49- 60.49 | 31.01 |
| 11.280 | 11.280 (0.708) | 47 | 45772 | | | 0.00- 45.46 | 15.52 |
| 205 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 23.111 | 23.111 (1.041) | 58 | 234686 | 5.00000 | 4.643 | 70.00- 130.00 | 100.00 |
| 23.111 | 23.111 (1.041) | 43 | 538781 | | | 201.02- 261.02 | 229.58 |
| 206 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 17.469 | 17.469 (1.010) | 56 | 282104 | 5.00000 | 6.258 | 70.00- 130.00 | 100.00 |
| 17.469 | 17.469 (1.010) | 41 | 250039 | | | 53.11- 113.11 | 88.63 |
| 17.469 | 17.469 (1.010) | 43 | 191593 | | | 32.89- 92.89 | 67.92 |
| 204 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 21.116 | 21.116 (1.220) | 56 | 136585 | 5.00000 | 5.332 | 70.00- 130.00 | 100.00 |
| 21.152 | 21.116 (1.222) | 73 | 37372 | | | 1.67- 61.67 | 27.36 |
| 21.116 | 21.116 (1.220) | 43 | 409073 | | | 283.51- 343.51 | 299.50 |
| 56 1,1-Dicholoropropene | | | | | CAS #: 563-58-6 | | |
| 16.458 | 16.458 (1.033) | 110 | 88841 | 5.00000 | 4.669 | 70.00- 130.00 | 100.00 |
| 16.458 | 16.458 (1.033) | 75 | 243954 | | | 249.21- 309.21 | 274.60 |
| 91 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 22.343 | 22.343 (1.006) | 131 | 265361 | 5.00000 | 4.629 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 117 | 178767 | | | 40.73- 100.73 | 67.37 |
| 22.343 | 22.343 (1.006) | 95 | 101616 | | | 8.70- 68.70 | 38.29 |
| 105 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 23.936 | 23.936 (1.078) | 110 | 113203 | 5.00000 | 4.488 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.936 (1.077) | 75 | 326785 | | | 248.74- 308.74 | 288.67 |
| 23.910 | 23.936 (1.077) | 61 | 107465 | | | 67.24- 127.24 | 94.93 |
| 97 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 23.884 | 23.884 (1.076) | 156 | 206432 | 5.00000 | 4.747 | 70.00- 130.00 | 100.00 |
| 23.884 | 23.884 (1.076) | 158 | 199033 | | | 70.23- 130.23 | 96.42 |
| 23.884 | 23.884 (1.076) | 77 | 397152 | | | 166.97- 226.97 | 192.39 |
| 107 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 24.091 | 24.091 (1.085) | 126 | 112104 | 5.00000 | 4.677 | 70.00- 130.00 | 100.00 |
| 24.065 | 24.091 (1.084) | 91 | 319598 | | | 263.05- 323.05 | 285.09 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 107 2-Chlorotoluene (continued) | | | | | | | |
| 24.065 | 24.091 (1.084) | 65 | 36337 | | | 6.34- 66.34 | 32.41 |
| 109 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 24.194 | 24.194 (1.090) | 126 | 95768 | 5.00000 | 4.391 | 70.00- 130.00 | 100.00 |
| 24.194 | 24.194 (1.090) | 91 | 266852 | | | 237.89- 297.89 | 278.64 |
| 24.194 | 24.194 (1.090) | 63 | 44685 | | | 17.19- 77.19 | 46.66 |
| 115 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 24.477 | 24.477 (1.102) | 119 | 256846 | 5.00000 | 4.566 | 70.00- 130.00 | 100.00 |
| 24.477 | 24.477 (1.102) | 134 | 61307 | | | 0.00- 54.70 | 23.87 |
| 24.477 | 24.477 (1.102) | 91 | 168524 | | | 37.96- 97.96 | 65.61 |
| 119 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 24.710 | 24.710 (1.113) | 105 | 337013 | 5.00000 | 4.577 | 70.00- 130.00 | 100.00 |
| 24.710 | 24.710 (1.113) | 134 | 71642 | | | 0.00- 51.17 | 21.26 |
| 24.710 | 24.710 (1.113) | 91 | 53611 | | | 0.00- 46.66 | 15.91 |
| 116 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 24.835 | 24.835 (1.118) | 119 | 272689 | 5.00000 | 3.777 | 70.00- 130.00 | 100.00 |
| 24.835 | 24.835 (1.118) | 134 | 75595 | | | 0.00- 57.73 | 27.72 |
| 24.835 | 24.835 (1.118) | 91 | 62175 | | | 0.00- 54.71 | 22.80 |
| 123 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 25.261 | 25.261 (1.138) | 134 | 76053 | 5.00000 | 3.305 | 70.00- 130.00 | 100.00 |
| 25.261 | 25.261 (1.138) | 91 | 266457 | | | 322.95- 382.95 | 350.36 |
| 25.261 | 25.261 (1.138) | 92 | 140669 | | | 154.37- 214.37 | 184.96 |
| 129 1,2-dibromo-3-chloropropane | | | | | CAS #: 96-12-8 | | |
| 26.203 | 26.203 (1.180) | 157 | 162926 | 5.00000 | 5.246 | 70.00- 130.00 | 100.00 |
| 26.203 | 26.203 (1.180) | 75 | 147367 | | | 60.30- 120.30 | 90.45 |
| 26.203 | 26.203 (1.180) | 155 | 128352 | | | 49.02- 109.02 | 78.78 |
| 83 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 21.045 | 21.045 (1.216) | 76 | 285604 | 5.00000 | 4.642 | 70.00- 130.00 | 100.00 |
| 21.045 | 21.045 (1.216) | 41 | 327403 | | | 86.61- 146.61 | 114.64 |
| 21.045 | 21.045 (1.216) | 78 | 92421 | | | 2.78- 62.78 | 32.36 |

Report Date: 20-Oct-2014 08:42

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101711.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 5.0ppbv (5.0ppbv) AT-1

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 103854 | -10.93 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 441823 | -8.03 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 346519 | -11.60 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101711.d



Date : 17-OCT-2014 17:06

Client ID:

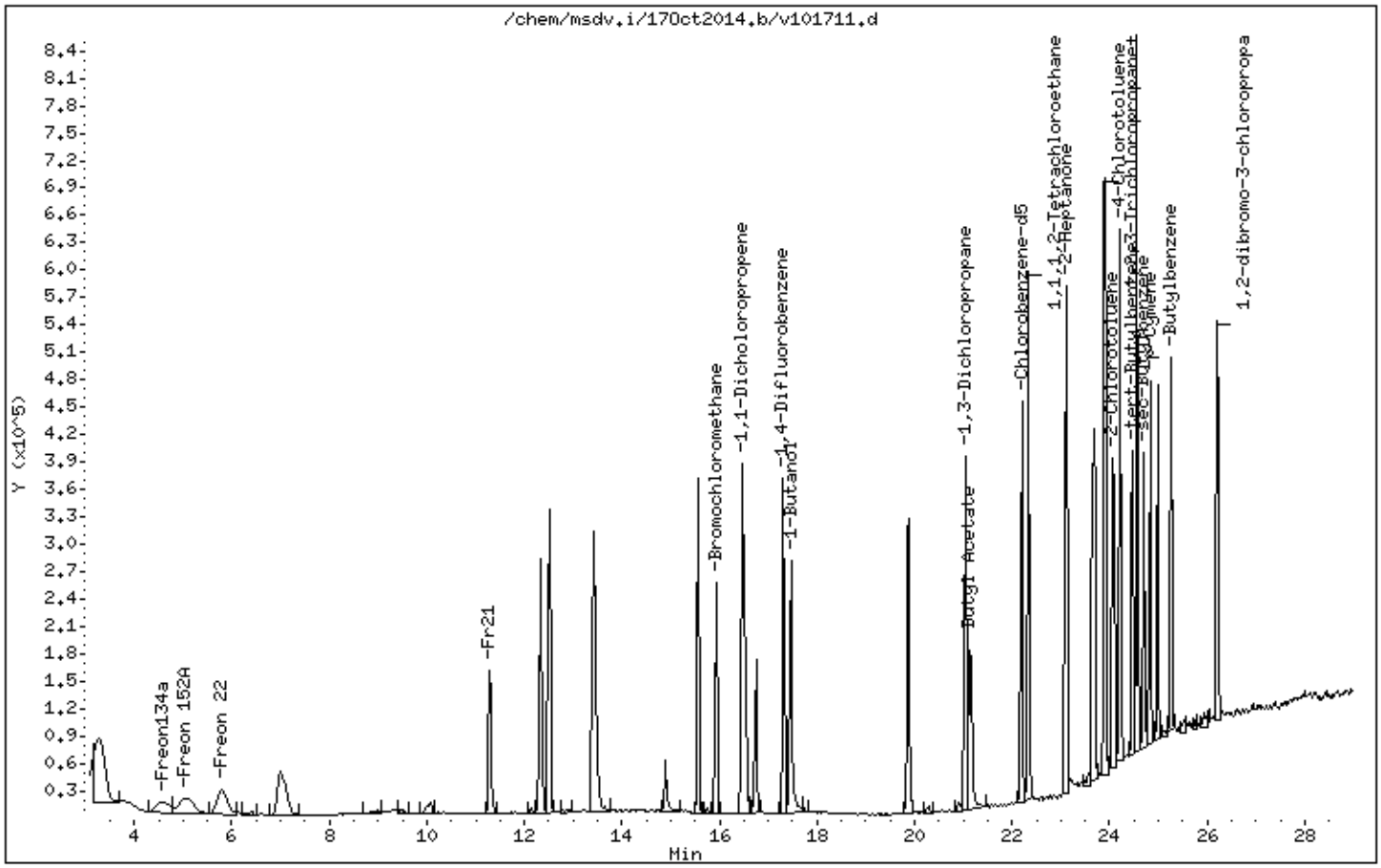
Instrument: msdv.i

Sample Info: 250mL# 2687-10

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/17Oct2014.b/v101708.d
Lab Smp Id: ICAL Level 9
Inj Date : 17-OCT-2014 14:29
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 2687-8
Misc Info : 5.0ppbv (5.0ppbv) Oxygenates
Comment : Low Level GC-MS
Method : /chem/msdv.i/17Oct2014.b/v14l1006b.m
Meth Date : 18-Oct-2014 08:06 lover Quant Type: ISTD
Cal Date : 17-OCT-2014 17:06 Cal File: v101711.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.947 (1.000) | 130 | 104489 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.947 (1.000) | 128 | 79435 | | | 48.18- 108.18 | 76.02 |
| 15.933 | 15.916 (1.000) | 49 | 219480 | | | 210.53- 270.53 | 210.05 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.318 (1.000) | 114 | 429065 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.318 (1.000) | 88 | 70343 | | | 0.00- 45.98 | 16.39 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.219 (1.000) | 117 | 339373 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.192 (1.000) | 82 | 187339 | | | 28.41- 88.41 | 55.20 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 469902 | 5.00000 | 4.827 | 80.00- 120.00 | 100.00 |
| 13.859 | 13.859 (0.870) | 41 | 133960 | | | 1.21- 61.21 | 28.51 |
| 13.859 | 13.859 (0.870) | 57 | 51042 | | | 0.00- 40.48 | 10.86 |
| 45 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.738 | 14.738 (0.925) | 45 | 1001619 | 5.00000 | 4.744 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 45 Isopropyl ether (continued) | | | | | | | | |
| 14.738 | 14.738 | (0.925) | 87 | 145500 | | | 0.00- 43.46 | 14.53 |
| 14.738 | 14.738 | (0.925) | 59 | 86513 | | | 0.00- 38.28 | 8.64 |
| 49 Ethyl-tert-butyl ether | | | | | | CAS #: 637-92-3 | | |
| 15.240 | 15.240 | (0.956) | 59 | 785227 | 5.00000 | 4.824 | 80.00- 120.00 | 100.00 |
| 15.240 | 15.240 | (0.956) | 87 | 228456 | | | 0.00- 58.99 | 29.09 |
| 15.240 | 15.240 | (0.956) | 41 | 184017 | | | 0.00- 55.20 | 23.43 |
| 66 tert-amyl methyl ether | | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 | (0.971) | 87 | 130877 | 5.00000 | 4.814 | 80.00- 120.00 | 100.00 |
| 16.810 | 16.810 | (0.971) | 73 | 541848 | | | 391.10- 451.10 | 414.01 |
| 16.810 | 16.810 | (0.971) | 55 | 193756 | | | 132.07- 192.07 | 148.04 |

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v101708.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/17Oct2014.b/v14l1006b.m
Misc Info: 5.0ppbv (5.0ppbv) Oxygenates

Calibration Date: 17-OCT-2014
Calibration Time: 09:45

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 116594 | 69956 | 163232 | 104489 | -10.38 |
| 71 1,4-Difluorobenze | 480411 | 288247 | 672575 | 429065 | -10.69 |
| 92 Chlorobenzene-d5 | 391969 | 235181 | 548757 | 339373 | -13.42 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.95 | 15.62 | 16.28 | 15.93 | -0.09 |
| 71 1,4-Difluorobenze | 17.32 | 16.99 | 17.65 | 17.30 | -0.08 |
| 92 Chlorobenzene-d5 | 22.22 | 21.89 | 22.55 | 22.21 | -0.06 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/17Oct2014.b/v101708.d



Date : 17-OCT-2014 14:29

Client ID:

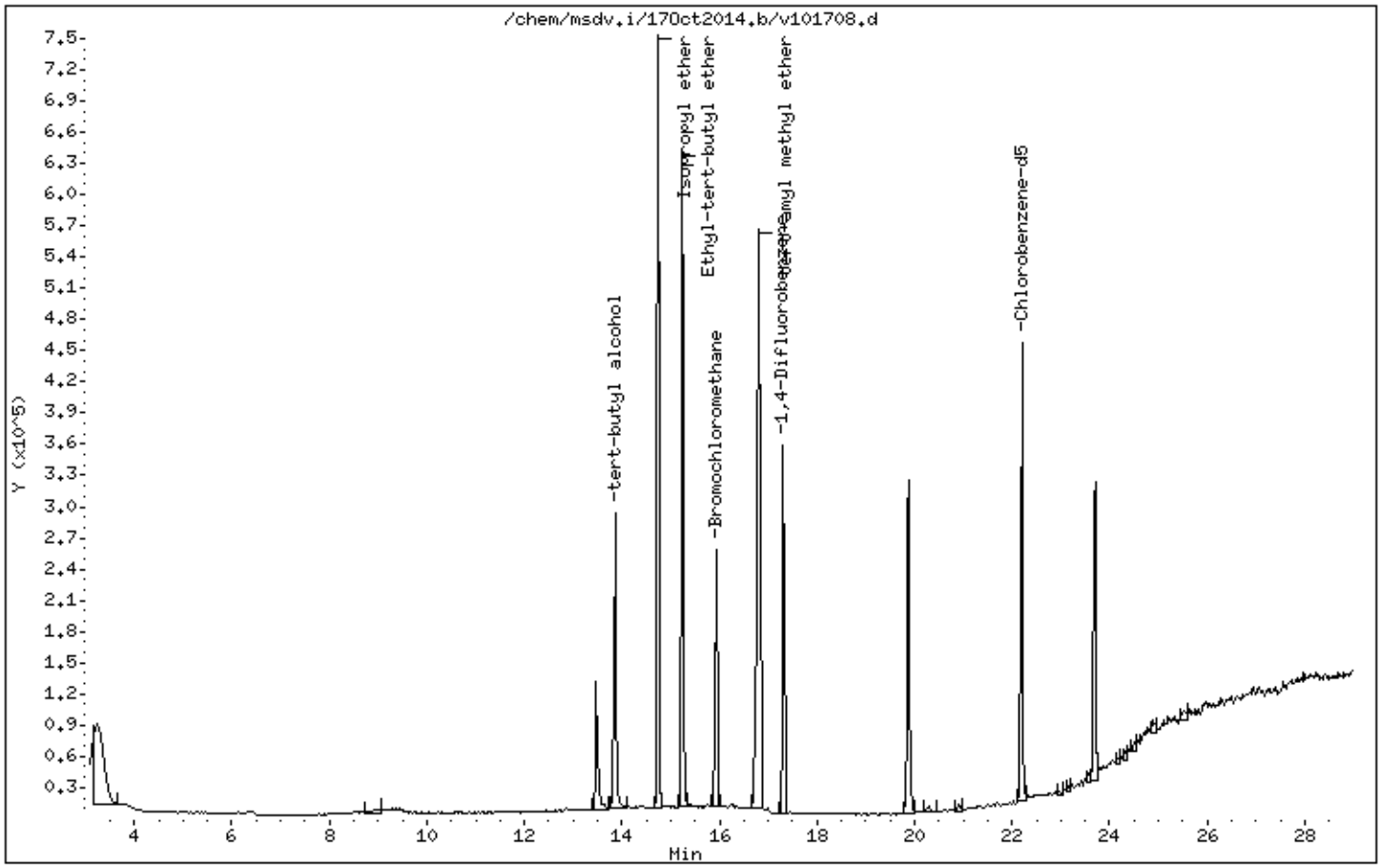
Instrument: msdv.i

Sample Info: 250mL# 2687-8

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100713.d
Lab Smp Id: ICAL Client Smp ID: Level 9
Inj Date : 07-OCT-2014 21:35
Operator : gd Inst ID: msdv.i
Smp Info : 250mL #2677-286
Misc Info : 5.0ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 22:27 gdelacru Quant Type: ISTD
Cal Date : 07-OCT-2014 21:35 Cal File: v100713.d
Als bottle: 6 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.934 (1.000) | 130 | 112291 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 86429 | | | 48.21- 108.21 | 76.97 |
| 15.934 | 15.934 (1.000) | 49 | 262838 | | | 215.61- 275.61 | 234.07 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 473536 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 77846 | | | 0.00- 46.17 | 16.44 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 281286 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 168386 | | | 29.34- 89.34 | 59.86 |
| 76 Octane | | | | | CAS #: 111-65-9 | | |
| 19.969 | 19.968 (1.154) | 57 | 182532 | 5.00000 | 4.678 | 80.00- 120.00 | 100.00 |
| 19.969 | 19.968 (1.154) | 85 | 143689 | | | 45.62- 105.62 | 78.72 |
| 19.969 | 19.968 (1.154) | 43 | 611353 | | | 293.94- 353.94 | 334.93 |
| 99 Decane | | | | | CAS #: 124-18-5 | | |
| 23.987 | 23.987 (1.080) | 57 | 373381 | 5.00000 | 4.670 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 99 Decane (continued) | | | | | | | | |
| 23.987 | 23.987 | (1.080) | 71 | 106838 | | | 0.00- 57.94 | 28.61 |
| 23.987 | 23.987 | (1.080) | 142 | 11436 | | | 0.00- 33.26 | 3.06 |
| 117 Indene | | | | | | CAS #: 95-13-6 | | |
| 25.463 | 25.485 | (1.147) | 115 | 174482 | 5.00000 | 4.740 | 80.00- 120.00 | 100.00(T) |
| 25.485 | 25.485 | (1.148) | 116 | 168898 | | | 67.11- 127.11 | 96.80 |
| 0.000 | 25.485 | (0.000) | 0 | 0 | | | 0.00- 30.00 | 0.00 |
| 121 1,2,3-trimethylbenzene | | | | | | CAS #: 526-73-8 | | |
| 24.992 | 24.992 | (1.125) | 120 | 93472 | 5.00000 | 4.418 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 | (1.125) | 105 | 213966 | | | 192.71- 252.71 | 228.91 |
| 24.992 | 24.992 | (1.125) | 77 | 29762 | | | 2.83- 62.83 | 31.84 |

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100713.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: Level 9
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 112291 | -8.52 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 473536 | -5.01 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 281286 | -29.32 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/07Oct2014.b/v100713.d



Date : 07-OCT-2014 21:35

Client ID: Level 9

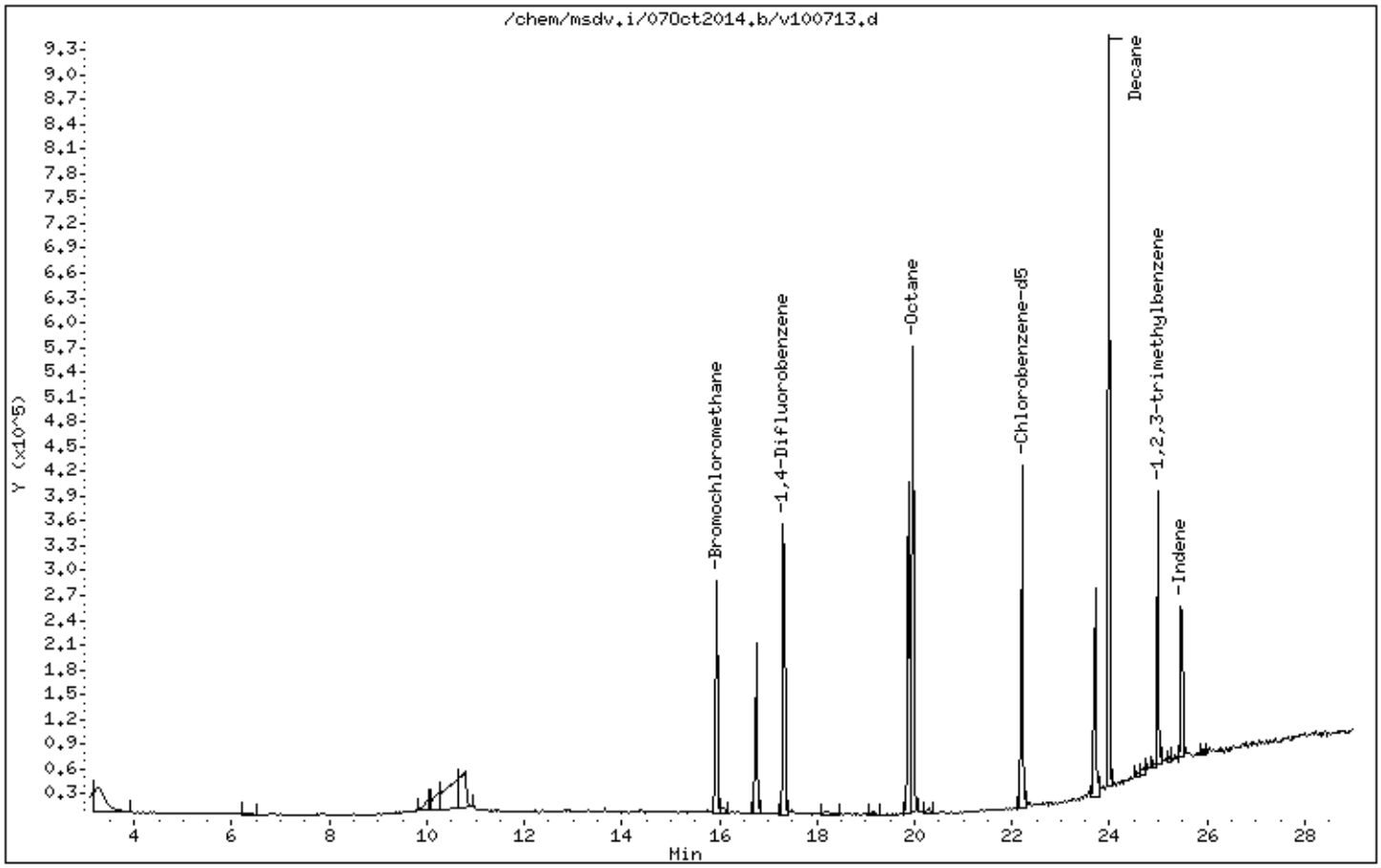
Instrument: msdv.i

Sample Info: 250mL #2677-286

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100610.d
Lab Smp Id: ICAL Client Smp ID: Level 9
Inj Date : 06-OCT-2014 17:52
Operator : gd Inst ID: msdv.i
Smp Info : 25mL #2677-212
Misc Info : 5.0ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 17:52 Cal File: v100610.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 125977 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 99218 | | | 47.54- 107.54 | 78.76 |
| 15.933 | 15.933 (1.000) | 49 | 303192 | | | 218.45- 278.45 | 240.67 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 495355 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 81080 | | | 0.00- 46.16 | 16.37 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 388529 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 233869 | | | 29.12- 89.12 | 60.19 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 219782 | 5.00000 | 4.754 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 122733 | | | 28.37- 88.37 | 55.84 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 483799 | 5.00000 | 5.080 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 58128 | | | 0.00- 41.90 | 12.01 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    311979                    33.85-  93.85    64.49
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    170446 5.00000    5.101  70.00- 130.00   100.00
 23.704  23.704 (1.067)    95    223459                   99.95- 159.95   131.10
 23.704  23.704 (1.067)   176    161679                   67.64- 127.64    94.86
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.673   4.673 (0.293)    41    366315 5.00000    5.183  70.00- 130.00   100.00
  4.673   4.673 (0.293)    42    241925                   35.18-  95.18    66.04
  4.673   4.673 (0.293)    39    272364                   44.12- 104.12    74.35
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85    648983 5.00000    5.499  70.00- 130.00   100.00
  5.202   5.202 (0.326)    87    208545                    1.90-  61.90    32.13
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.713   6.713 (0.421)   135    455844 5.00000    5.408  70.00- 130.00   100.00
  6.713   6.713 (0.421)   137    146364                    0.53-  60.53    32.11
  6.713   6.713 (0.421)    85    684581                  121.37- 181.37   150.18
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.052   7.052 (0.443)    50    376222 5.00000    5.289  70.00- 130.00   100.00
  7.052   7.052 (0.443)    52    117431                    1.81-  61.81    31.21
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.853   7.853 (0.493)    58     62919 5.00000    5.278  70.00- 130.00   100.00
  7.853   7.853 (0.493)    43    701497                 1065.18-1125.18  1114.92
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62    296043 5.00000    5.578  70.00- 130.00   100.00
  8.009   8.009 (0.503)    64     87758                    0.00-  58.65    29.64
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54    280379 5.00000    5.389  70.00- 130.00   100.00
  8.257   8.257 (0.518)    39    367364                  107.15- 167.15   131.02
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    185887 5.00000    5.713  70.00- 130.00   100.00
  9.834   9.834 (0.617)    96    177464                   72.12- 132.12    95.47
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.340  10.340 (0.649)    64    139366 5.00000    5.650  70.00- 130.00   100.00
 10.340  10.340 (0.649)    66     41023                    0.00-  59.90    29.44
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 277024 | 5.00000 | 5.452 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 559535 | | | 171.32- 231.32 | 201.98 |
| 10.533 | 10.533 (0.661) | 42 | 493927 | | | 150.03- 210.03 | 178.30 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.183 (0.702) | 101 | 663143 | 5.00000 | 5.458 | 70.00- 130.00 | 100.00 |
| 11.183 | 11.183 (0.702) | 103 | 428095 | | | 36.54- 96.54 | 64.56 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.759) | 45 | 145626 | 5.00000 | 5.654 | 70.00- 130.00 | 100.00 |
| 12.101 | 12.101 (0.759) | 46 | 57620 | | | 8.51- 68.51 | 39.57 |
| 12.101 | 12.101 (0.759) | 43 | 31644 | | | 0.00- 54.10 | 21.73 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 147243 | 5.00000 | 5.424 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 505527 | | | 320.65- 380.65 | 343.33 |
| 12.568 | 12.568 (0.789) | 96 | 228951 | | | 134.30- 194.30 | 155.49 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 381765 | 5.00000 | 5.220 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 251920 | | | 33.10- 93.10 | 65.99 |
| 12.568 | 12.568 (0.789) | 101 | 488496 | | | 96.37- 156.37 | 127.96 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 156669 | 5.00000 | 5.264 | 70.00- 130.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 689714 | | | 413.15- 473.15 | 440.24 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 615679 | 5.00000 | 5.332 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.392 | 13.392 (0.841) | 76 | 86357 | 5.00000 | 5.182 | 70.00- 130.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 507418 | | | 547.03- 607.03 | 587.58 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 738402 | 5.00000 | 5.357 | 70.00- 130.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 142138 | | | 0.00- 50.74 | 19.25 |
| 13.173 | 13.173 (0.827) | 59 | 19962 | | | 0.00- 32.83 | 2.70 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 196977 | 5.00000 | 5.143 | 70.00- 130.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 490755 | | | 212.37- 272.37 | 249.14 |
| 13.640 | 13.640 (0.856) | 51 | 140187 | | | 43.31- 103.31 | 71.17 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 630593 | 5.00000 | 5.220 | 70.00- 130.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41    208467                     1.97-  61.97    33.06
 13.859  13.859 (0.870)    57     67681                     0.00-  40.67    10.73
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.996  13.996 (0.878)    73    722511 5.00000    5.258  70.00- 130.00   100.00
 13.996  13.996 (0.878)    57    240604                     2.99-  62.99    33.30
 13.996  13.996 (0.878)    41    309378                    12.12-  72.12    42.82
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.051  14.051 (0.882)    98    142249 5.00000    5.538  70.00- 130.00   100.00
 14.051  14.051 (0.882)    61    431008                   293.73- 353.73   303.00
 14.051  14.051 (0.882)    96    223734                   146.88- 206.88   157.28
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57    585945 5.00000    5.329  70.00- 130.00   100.00
 14.381  14.381 (0.903)    43    505672                    57.65- 117.65    86.30
 14.381  14.381 (0.903)    86     63240                     0.00-  40.67    10.79
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45   1551523 5.00000    5.432  70.00- 130.00   100.00
 14.738  14.738 (0.925)    87    208234                     0.00-  43.44    13.42
 14.738  14.738 (0.925)    59    126966                     0.00-  38.34     8.18
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63    562172 5.00000    5.269  70.00- 130.00   100.00
 14.765  14.765 (0.927)    65    174187                     0.37-  60.37    30.98
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86     59584 5.00000    5.471  70.00- 130.00   100.00
 14.793  14.793 (0.928)    42    171166                   220.92- 280.92   287.27
 14.793  14.793 (0.928)    43   2021261                  3282.47-3342.47  3392.29
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59   1035362 5.00000    5.319  70.00- 130.00   100.00
 15.240  15.240 (0.956)    87    300056                     0.00-  58.71    28.98
 15.240  15.240 (0.956)    41    274965                     0.00-  56.39    26.56
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98    182940 5.00000    5.367  70.00- 130.00   100.00
 15.592  15.592 (0.979)    61    506163                   248.69- 308.69   276.68
 15.592  15.592 (0.979)    96    290658                   132.55- 192.55   158.88
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.592 (0.979)    72    122373 5.00000    5.524  70.00- 130.00   100.00
 15.592  15.592 (0.979)    43    981937                   794.80- 854.80   802.41
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 51 2-Butanone (continued) | | | | | | | |
| 15.592 | 15.592 (0.979) | 57 | 55865 | | | 18.01- 78.01 | 45.65 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 599115 | 5.00000 | 5.248 | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 115850 | | | 0.00- 49.03 | 19.34 |
| 15.933 | 15.933 (1.000) | 72 | 131492 | | | 0.00- 51.35 | 21.95 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 553092 | 5.00000 | 5.210 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 354400 | | | 33.33- 93.33 | 64.08 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.272 | 16.272 (1.021) | 84 | 358178 | 5.00000 | 5.364 | 70.00- 130.00 | 100.00 |
| 16.272 | 16.272 (1.021) | 56 | 653944 | | | 157.43- 217.43 | 182.58 |
| 16.272 | 16.272 (1.021) | 41 | 475556 | | | 105.99- 165.99 | 132.77 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 579250 | 5.00000 | 5.225 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 374549 | | | 32.16- 92.16 | 64.66 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.457 | 16.457 (1.033) | 119 | 578443 | 5.00000 | 5.440 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.457 (1.033) | 117 | 586565 | | | 69.67- 129.67 | 101.40 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 602297 | 5.00000 | 5.176 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 1761243 | | | 258.69- 318.69 | 292.42 |
| 16.728 | 16.728 (1.050) | 41 | 661335 | | | 79.91- 139.91 | 109.80 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.756 | 16.756 (0.968) | 78 | 774004 | 5.00000 | 5.295 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (0.968) | 77 | 179842 | | | 0.00- 53.73 | 23.24 |
| 66 tert-amyl methyl ether | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 (0.971) | 87 | 178890 | 5.00000 | 5.404 | 70.00- 130.00 | 100.00 |
| 16.810 | 16.810 (0.971) | 73 | 770168 | | | 399.95- 459.95 | 430.53 |
| 16.810 | 16.810 (0.971) | 55 | 307276 | | | 143.62- 203.62 | 171.77 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 472175 | 5.00000 | 5.330 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 147963 | | | 1.11- 61.11 | 31.34 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 337252 | 5.00000 | 5.353 | 70.00- 130.00 | 100.00 |
| 16.975 | 16.975 (0.981) | 100 | 76722 | | | 0.00- 51.27 | 22.75 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 889100 | | | 235.24- 295.24 | 263.63 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.716 | 17.716 (1.024) | 130 | 352640 | 5.00000 | 5.359 | 70.00- 130.00 | 100.00 |
| 17.716 | 17.716 (1.024) | 95 | 357797 | | | 71.16- 131.16 | 101.46 |
| 17.716 | 17.716 (1.024) | 97 | 225872 | | | 33.04- 93.04 | 64.05 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.964 (1.038) | 83 | 467559 | 5.00000 | 5.411 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.038) | 98 | 217200 | | | 15.02- 75.02 | 46.45 |
| 17.964 | 17.964 (1.038) | 55 | 587061 | | | 95.64- 155.64 | 125.56 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 360108 | 5.00000 | 5.370 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 262105 | | | 45.17- 105.17 | 72.79 |
| 18.156 | 18.156 (1.049) | 41 | 326673 | | | 59.65- 119.65 | 90.72 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.266 (1.056) | 88 | 183323 | 5.00000 | 5.440 | 70.00- 130.00 | 100.00 |
| 18.266 | 18.266 (1.056) | 58 | 187904 | | | 72.13- 132.13 | 102.50 |
| 18.266 | 18.266 (1.056) | 57 | 60796 | | | 4.41- 64.41 | 33.16 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 603589 | 5.00000 | 5.437 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 386335 | | | 32.12- 92.12 | 64.01 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 412375 | 5.00000 | 5.435 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 127165 | | | 1.25- 61.25 | 30.84 |
| 19.408 | 19.408 (1.122) | 39 | 405972 | | | 71.17- 131.17 | 98.45 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 1113398 | 5.00000 | 5.396 | 70.00- 130.00 | 100.00 |
| 19.610 | 19.610 (1.133) | 58 | 296809 | | | 0.00- 57.24 | 26.66 |
| 19.610 | 19.610 (1.133) | 85 | 95037 | | | 0.00- 38.20 | 8.54 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 870720 | 5.00000 | 5.396 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 502128 | | | 28.60- 88.60 | 57.67 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 436328 | 5.00000 | 5.448 | 70.00- 130.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 138623 | | | 5.48- 65.48 | 31.77 |
| 20.435 | 20.435 (0.920) | 39 | 404246 | | | 63.15- 123.15 | 92.65 |

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.757  20.757 (0.935)    97    343094 5.00000    5.610  70.00- 130.00   100.00
 20.757  20.757 (0.935)    99    202842                   32.13-  92.13    59.12
 20.757  20.757 (0.935)    83    294751                   57.82- 117.82    85.91
-------------------------------------------------------------------------------
   86 Tetrachloroethene                            CAS #: 127-18-4
 20.901  20.901 (0.941)   166    432748 5.00000    5.473  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129    347093                   47.04- 107.04    80.21
 20.901  20.901 (0.941)   131    330363                   46.95- 106.95    76.34
-------------------------------------------------------------------------------
   87 2-Hexanone                                   CAS #: 591-78-6
 21.044  21.044 (0.948)    58    363957 5.00000    5.314  70.00- 130.00   100.00
 21.044  21.044 (0.948)    43    964106                  242.48- 302.48   264.90
 21.044  21.044 (0.948)   100     51657                    0.00-  43.88    14.19
-------------------------------------------------------------------------------
   89 Dibromochloromethane                         CAS #: 124-48-1
 21.367  21.367 (0.962)   129    612530 5.00000    5.381  70.00- 130.00   100.00
 21.367  21.367 (0.962)   127    480011                   50.38- 110.38    78.37
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                            CAS #: 106-93-4
 21.583  21.583 (0.972)   107    520725 5.00000    5.466  70.00- 130.00   100.00
 21.583  21.583 (0.972)   109    486859                   62.69- 122.69    93.50
-------------------------------------------------------------------------------
   93 Chlorobenzene                                CAS #: 108-90-7
 22.233  22.233 (1.001)   112    691990 5.00000    5.424  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114    218781                    1.62-  61.62    31.62
 22.233  22.233 (1.001)    77    408868                   38.66-  98.66    59.09
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                CAS #: 100-41-4
 22.315  22.315 (1.005)   106    305285 5.00000    5.331  70.00- 130.00   100.00
 22.315  22.315 (1.005)    91    981039                  292.36- 352.36   321.35
-------------------------------------------------------------------------------
   96 m,p-Xylene                                   CAS #: 108-38-3
 22.480  22.480 (1.012)   106    298218 5.00000    5.281  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91    592110                  164.15- 224.15   198.55
-------------------------------------------------------------------------------
  100 o-Xylene                                     CAS #: 95-47-6
 23.001  23.001 (1.036)   106    287808 5.00000    5.477  70.00- 130.00   100.00
 23.001  23.001 (1.036)    91    606643                  186.63- 246.63   210.78
-------------------------------------------------------------------------------
  101 Styrene                                      CAS #: 100-42-5
 23.029  23.029 (1.037)   104    420664 5.00000    5.472  70.00- 130.00   100.00
 23.029  23.029 (1.037)    78    220029                   28.70-  88.70    52.31
-------------------------------------------------------------------------------
  102 Bromoform                                    CAS #: 75-25-2
 23.331  23.331 (1.051)   173    518490 5.00000    5.374  70.00- 130.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 268560 | | | 20.40- 80.40 | 51.80 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 798977 | 5.00000 | 5.207 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 226153 | | | 0.00- 57.73 | 28.31 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 605962 | 5.00000 | 5.141 | 70.00- 130.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 390411 | | | 34.81- 94.81 | 64.43 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 682372 | 5.00000 | 5.014 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 162870 | | | 0.00- 53.83 | 23.87 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 482303 | 5.00000 | 4.830 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 147595 | | | 0.18- 60.18 | 30.60 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 449858 | 5.00000 | 5.396 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 215730 | | | 20.44- 80.44 | 47.96 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 337517 | 5.00000 | 4.998 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 160308 | | | 19.27- 79.27 | 47.50 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 334123 | 5.00000 | 5.128 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 214822 | | | 38.48- 98.48 | 64.29 |
| 24.902 | 24.902 (1.121) | 111 | 136487 | | | 10.49- 70.49 | 40.85 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 293378 | 5.00000 | 4.790 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 182004 | | | 38.92- 98.92 | 62.04 |
| 24.992 | 24.992 (1.125) | 111 | 118514 | | | 11.61- 71.61 | 40.40 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.126 | 25.126 (1.132) | 91 | 332335 | 5.00000 | 5.078 | 70.00- 130.00 | 100.00 |
| 25.126 | 25.126 (1.132) | 126 | 73095 | | | 0.00- 52.82 | 21.99 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.395 (1.144) | 146 | 307815 | 5.00000 | 5.092 | 70.00- 130.00 | 100.00 |
| 25.395 | 25.395 (1.144) | 148 | 195358 | | | 36.09- 96.09 | 63.47 |
| 25.395 | 25.395 (1.144) | 111 | 129565 | | | 13.38- 73.38 | 42.09 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 209783 | 5.00000 | 4.729 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 199510 | | | 64.14- 124.14 | 95.10 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 (1.223) | 225 | 159548 | 5.00000 | 4.300 | 70.00- 130.00 | 100.00 |
| 27.166 | 27.166 (1.223) | 223 | 104041 | | | 44.27- 104.27 | 65.21 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.391 (1.234) | 128 | 54760 | 0.50000 | 0.5212 | 70.00- 130.00 | 100.00 |
| 27.368 | 27.368 (1.232) | 127 | 7665 | | | 0.00- 47.41 | 14.00 |

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100610.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 9
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 125977 | 0.70 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 495355 | -0.57 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 388529 | -4.40 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100610.d



Date : 06-OCT-2014 17:52

Client ID: Level 9

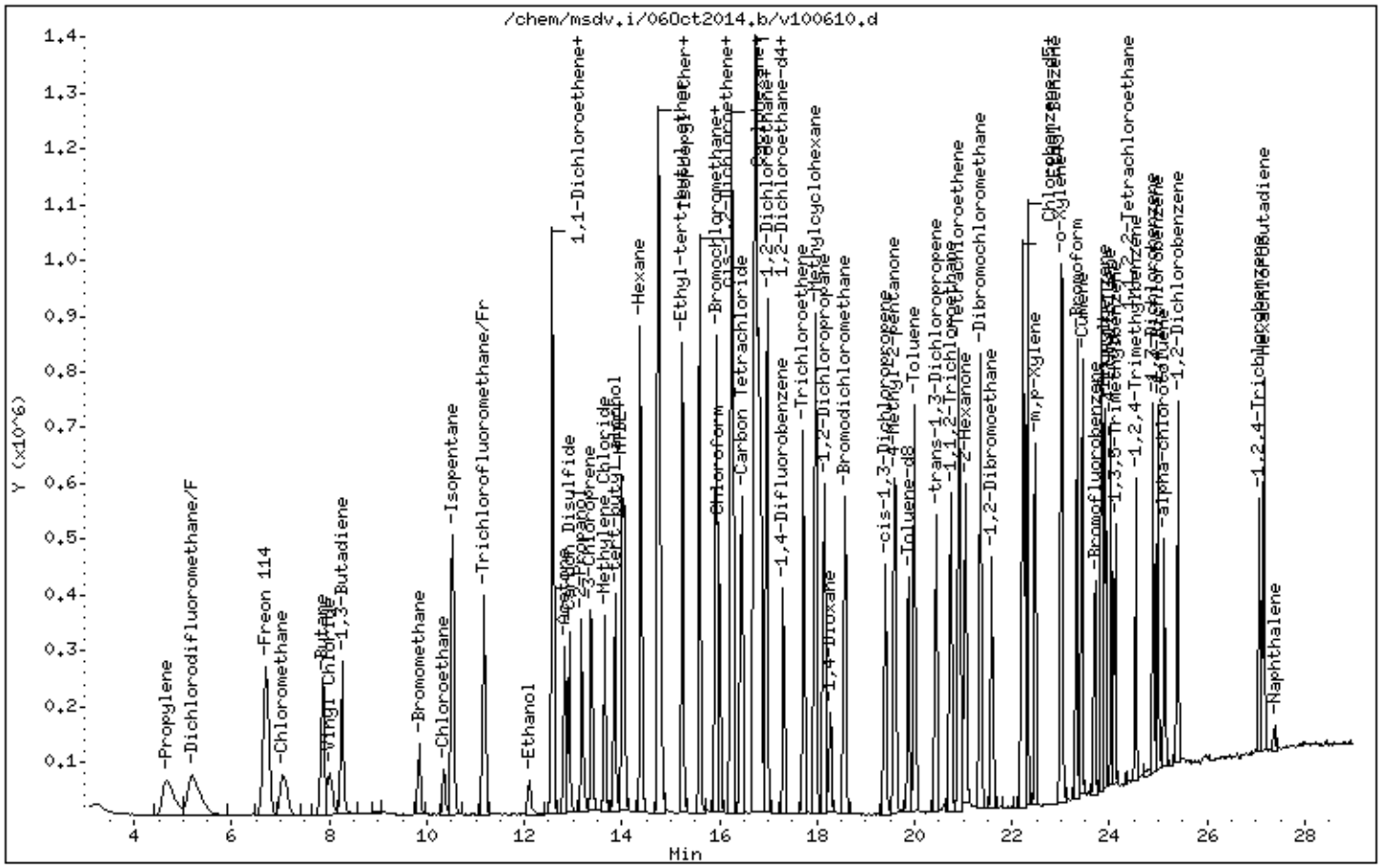
Instrument: msdv.i

Sample Info: 25mL #2677-212

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100611.d
Lab Smp Id: ICAL Client Smp ID: Level 10
Inj Date : 06-OCT-2014 18:36
Operator : gd Inst ID: msdv.i
Smp Info : 50mL #2677-212; ICAL; Level 10
Misc Info : 10ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 31-Oct-2014 10:34 atoyama Quant Type: ISTD
Cal Date : 06-OCT-2014 18:36 Cal File: v100611.d
Als bottle: 1 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.934 | 15.934 (1.000) | 130 | 125097 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 101188 | | | 50.89- 110.89 | 80.89 |
| 15.934 | 15.934 (1.000) | 49 | 307671 | | | 215.95- 275.95 | 245.95 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 498199 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 82485 | | | 0.00- 46.56 | 16.56 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 406420 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 236846 | | | 28.28- 88.28 | 58.28 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 230715 | 5.00000 | 5.025 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 138012 | | | 29.82- 89.82 | 59.82 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.879 | 19.879 (1.149) | 98 | 494735 | 5.00000 | 5.165 | 80.00- 120.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 58108 | | | 0.00- 41.75 | 11.75 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    315177                    33.71-  93.71    63.71
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    179544 5.00000    5.137  80.00- 120.00   100.00
 23.704  23.704 (1.067)    95    238192                  102.66- 162.66   132.66
 23.704  23.704 (1.067)   176    182465                    71.63- 131.63   101.63
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.674   4.674 (0.293)    41    698111 10.0000    9.947  80.00- 120.00   100.00
  4.674   4.674 (0.293)    42    446693                    33.99-  93.99    63.99
  4.674   4.674 (0.293)    39    504684                    42.29- 102.29    72.29
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85   1234948 10.0000   10.537  80.00- 120.00   100.00
  5.202   5.202 (0.326)    87    398969                     2.31-  62.31    32.31
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.713   6.713 (0.421)   135    859922 10.0000   10.274  80.00- 120.00   100.00
  6.713   6.713 (0.421)   137    278078                     2.34-  62.34    32.34
  6.713   6.713 (0.421)    85   1318334                  123.31- 183.31   153.31
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.053   7.053 (0.443)    50    707880 10.0000   10.022  80.00- 120.00   100.00
  7.053   7.053 (0.443)    52    216079                     0.52-  60.52    30.52
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.885   7.885 (0.495)    58    121552 10.0000   10.269  80.00- 120.00   100.00
  7.885   7.885 (0.495)    43   1337672                 1070.49-1130.49  1100.49
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62    559755 10.0000   10.621  80.00- 120.00   100.00
  8.009   8.009 (0.503)    64    168687                     0.14-  60.14    30.14
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54    533384 10.0000   10.323  80.00- 120.00   100.00
  8.257   8.257 (0.518)    39    702836                  101.77- 161.77   131.77
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    363898 10.0000   11.262  80.00- 120.00   100.00
  9.834   9.834 (0.617)    96    340904                    63.68- 123.68    93.68
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.364  10.364 (0.650)    64    267002 10.0000   10.901  80.00- 120.00   100.00
 10.364  10.364 (0.650)    66     76131                     0.00-  58.51    28.51
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 526315 | 10.0000 | 10.431 | 80.00- 120.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 1076062 | | | 174.45- 234.45 | 204.45 |
| 10.533 | 10.533 (0.661) | 42 | 944559 | | | 149.47- 209.47 | 179.47 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.184 | 11.184 (0.702) | 101 | 1255064 | 10.0000 | 10.403 | 80.00- 120.00 | 100.00 |
| 11.184 | 11.184 (0.702) | 103 | 807607 | | | 34.35- 94.35 | 64.35 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.760) | 45 | 301212 | 10.0000 | 11.778 | 80.00- 120.00 | 100.00 |
| 12.101 | 12.101 (0.760) | 46 | 116065 | | | 8.53- 68.53 | 38.53 |
| 12.101 | 12.101 (0.760) | 43 | 56362 | | | 0.00- 48.71 | 18.71 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 286281 | 10.0000 | 10.619 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 976665 | | | 311.16- 371.16 | 341.16 |
| 12.568 | 12.568 (0.789) | 96 | 442643 | | | 124.62- 184.62 | 154.62 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 736424 | 10.0000 | 10.141 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 467939 | | | 33.54- 93.54 | 63.54 |
| 12.568 | 12.568 (0.789) | 101 | 937280 | | | 97.27- 157.27 | 127.27 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 308649 | 10.0000 | 10.443 | 80.00- 120.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 1341041 | | | 404.49- 464.49 | 434.49 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.926 | 12.926 (0.811) | 76 | 1183169 | 10.0000 | 10.318 | 80.00- 120.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.393 | 13.393 (0.841) | 76 | 174667 | 10.0000 | 10.556 | 80.00- 120.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 1035898 | | | 563.07- 623.07 | 593.07 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 1461821 | 10.0000 | 10.681 | 80.00- 120.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 282638 | | | 0.00- 49.33 | 19.33 |
| 13.173 | 13.173 (0.827) | 59 | 40967 | | | 0.00- 32.80 | 2.80 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 390953 | 10.0000 | 10.280 | 80.00- 120.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 939819 | | | 210.39- 270.39 | 240.39 |
| 13.640 | 13.640 (0.856) | 51 | 275039 | | | 40.35- 100.35 | 70.35 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 1275761 | 10.0000 | 10.636 | 80.00- 120.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41    404293                     1.69-  61.69    31.69
 13.859  13.859 (0.870)    57    139499                     0.00-  40.93    10.93
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.997  13.997 (0.878)    73   1404429 10.0000   10.293  80.00- 120.00   100.00
 13.997  13.997 (0.878)    57    463229                     2.98-  62.98    32.98
 13.997  13.997 (0.878)    41    599258                    12.67-  72.67    42.67
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.052  14.052 (0.882)    98    274317 10.0000   10.754  80.00- 120.00   100.00
 14.052  14.052 (0.882)    61    843759                   277.59- 337.59   307.59
 14.052  14.052 (0.882)    96    431387                   127.26- 187.26   157.26
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57   1131770 10.0000   10.366  80.00- 120.00   100.00
 14.381  14.381 (0.903)    43    992389                    57.68- 117.68    87.68
 14.381  14.381 (0.903)    86    121976                     0.00-  40.78    10.78
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45   3041341 10.0000   10.722  80.00- 120.00   100.00
 14.738  14.738 (0.925)    87    399867                     0.00-  43.15    13.15
 14.738  14.738 (0.925)    59    241927                     0.00-  37.95     7.95
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63   1090735 10.0000   10.295  80.00- 120.00   100.00
 14.765  14.765 (0.927)    65    324980                     0.00-  59.79    29.79
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86    117125 10.0000   10.830  80.00- 120.00   100.00
 14.793  14.793 (0.928)    42    333202                   254.48- 314.48   284.48
 14.793  14.793 (0.928)    43   4014328                  3397.39-3457.39  3427.39
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59   2028758 10.0000   10.496  80.00- 120.00   100.00
 15.240  15.240 (0.956)    87    587423                     0.00-  58.95    28.95
 15.240  15.240 (0.956)    41    531141                     0.00-  56.18    26.18
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98    357428 10.0000   10.559  80.00- 120.00   100.00
 15.592  15.592 (0.979)    61    986291                   245.94- 305.94   275.94
 15.592  15.592 (0.979)    96    568078                   128.93- 188.93   158.93
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.592 (0.979)    72    240514 10.0000   10.933  80.00- 120.00   100.00
 15.592  15.592 (0.979)    43   1952992                   782.01- 842.01   812.01
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   51 2-Butanone (continued)
 15.592  15.592 (0.979)    57    111597                    16.40-  76.40    46.40
-------------------------------------------------------------------------------
   53 Tetrahydrofuran                                CAS #: 109-99-9
 15.934  15.934 (1.000)    42   1200793 10.0000   10.592  80.00- 120.00   100.00
 15.934  15.934 (1.000)    71    227403                     0.00-  48.94    18.94
 15.934  15.934 (1.000)    72    253440                     0.00-  51.11    21.11
-------------------------------------------------------------------------------
   55 Chloroform                                     CAS #: 67-66-3
 15.995  15.995 (1.004)    83   1068043 10.0000   10.131  80.00- 120.00   100.00
 15.995  15.995 (1.004)    85    693192                    34.90-  94.90    64.90
-------------------------------------------------------------------------------
   57 Cyclohexane                                    CAS #: 110-82-7
 16.273  16.273 (1.021)    84    688404 10.0000   10.382  80.00- 120.00   100.00
 16.273  16.273 (1.021)    56   1264434                   153.68- 213.68   183.68
 16.273  16.273 (1.021)    41    954680                   108.68- 168.68   138.68
-------------------------------------------------------------------------------
   58 1,1,1-Trichloroethane                          CAS #: 71-55-6
 16.242  16.242 (1.019)    97   1124120 10.0000   10.212  80.00- 120.00   100.00
 16.242  16.242 (1.019)    99    707511                    32.94-  92.94    62.94
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                           CAS #: 56-23-5
 16.457  16.457 (1.033)   119   1101599 10.0000   10.432  80.00- 120.00   100.00
 16.457  16.457 (1.033)   117   1120321                    71.70- 131.70   101.70
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 16.728  16.728 (1.050)    56   1194322 10.0000   10.336  80.00- 120.00   100.00
 16.728  16.728 (1.050)    57   3483064                   261.64- 321.64   291.64
 16.728  16.728 (1.050)    41   1341477                    82.32- 142.32   112.32
-------------------------------------------------------------------------------
   64 Benzene                                        CAS #: 71-43-2
 16.756  16.756 (0.968)    78   1491108 10.0000   10.142  80.00- 120.00   100.00
 16.756  16.756 (0.968)    77    350897                     0.00-  53.53    23.53
-------------------------------------------------------------------------------
   66 tert-amyl methyl ether                         CAS #: 994-05-8
 16.811  16.811 (0.971)    87    349800 10.0000   10.507  80.00- 120.00   100.00
 16.811  16.811 (0.971)    73   1488676                   395.58- 455.58   425.58
 16.811  16.811 (0.971)    55    598877                   141.21- 201.21   171.21
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                             CAS #: 107-06-2
 16.865  16.865 (0.975)    62    925758 10.0000   10.390  80.00- 120.00   100.00
 16.865  16.865 (0.975)    64    286952                     1.00-  61.00    31.00
-------------------------------------------------------------------------------
   69 Heptane                                        CAS #: 142-82-5
 16.975  16.975 (0.981)    57    677911 10.0000   10.698  80.00- 120.00   100.00
 16.975  16.975 (0.981)   100    144875                     0.00-  51.37    21.37
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 1756825 | | | 229.15- 289.15 | 259.15 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.717 | 17.717 (1.024) | 130 | 706111 | 10.0000 | 10.669 | 80.00- 120.00 | 100.00 |
| 17.717 | 17.717 (1.024) | 95 | 689879 | | | 67.70- 127.70 | 97.70 |
| 17.717 | 17.717 (1.024) | 97 | 446022 | | | 33.17- 93.17 | 63.17 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.964 (1.038) | 83 | 923323 | 10.0000 | 10.624 | 80.00- 120.00 | 100.00 |
| 17.964 | 17.964 (1.038) | 98 | 413113 | | | 14.74- 74.74 | 44.74 |
| 17.964 | 17.964 (1.038) | 55 | 1155464 | | | 95.14- 155.14 | 125.14 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 703353 | 10.0000 | 10.429 | 80.00- 120.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 513276 | | | 42.98- 102.98 | 72.98 |
| 18.156 | 18.156 (1.049) | 41 | 623188 | | | 58.60- 118.60 | 88.60 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.266 (1.056) | 88 | 359898 | 10.0000 | 10.618 | 80.00- 120.00 | 100.00 |
| 18.266 | 18.266 (1.056) | 58 | 357353 | | | 69.29- 129.29 | 99.29 |
| 18.266 | 18.266 (1.056) | 57 | 120903 | | | 3.59- 63.59 | 33.59 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 1189662 | 10.0000 | 10.655 | 80.00- 120.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 748771 | | | 32.94- 92.94 | 62.94 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 814038 | 10.0000 | 10.668 | 80.00- 120.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 251335 | | | 0.88- 60.88 | 30.88 |
| 19.408 | 19.408 (1.122) | 39 | 801708 | | | 68.49- 128.49 | 98.49 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.588 | 19.588 (1.132) | 43 | 2275274 | 10.0000 | 10.964 | 80.00- 120.00 | 100.00 |
| 19.588 | 19.588 (1.132) | 58 | 623651 | | | 0.00- 57.41 | 27.41 |
| 19.588 | 19.588 (1.132) | 85 | 190584 | | | 0.00- 38.38 | 8.38 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 1695935 | 10.0000 | 10.450 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 974166 | | | 27.44- 87.44 | 57.44 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 873011 | 10.0000 | 10.421 | 80.00- 120.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 268587 | | | 0.77- 60.77 | 30.77 |
| 20.435 | 20.435 (0.920) | 39 | 795804 | | | 61.16- 121.16 | 91.16 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.758  20.758 (0.935)    97    643352 10.0000   10.056  80.00- 120.00   100.00
 20.758  20.758 (0.935)    99    396383                   31.61-  91.61    61.61
 20.758  20.758 (0.935)    83    580188                   60.18- 120.18    90.18
-------------------------------------------------------------------------------
   86 Tetrachloroethene                            CAS #: 127-18-4
 20.901  20.901 (0.941)   166    848312 10.0000   10.256  80.00- 120.00   100.00
 20.901  20.901 (0.941)   129    651871                   46.84- 106.84    76.84
 20.901  20.901 (0.941)   131    640778                   45.54- 105.54    75.54
-------------------------------------------------------------------------------
   87 2-Hexanone                                   CAS #: 591-78-6
 21.045  21.045 (0.948)    58    763240 10.0000   10.654  80.00- 120.00   100.00
 21.045  21.045 (0.948)    43   2043842                  237.78- 297.78   267.78
 21.045  21.045 (0.948)   100    109975                    0.00-  44.41    14.41
-------------------------------------------------------------------------------
   89 Dibromochloromethane                         CAS #: 124-48-1
 21.367  21.367 (0.962)   129   1217104 10.0000   10.222  80.00- 120.00   100.00
 21.367  21.367 (0.962)   127    946918                   47.80- 107.80    77.80
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                            CAS #: 106-93-4
 21.583  21.583 (0.972)   107   1017714 10.0000   10.212  80.00- 120.00   100.00
 21.583  21.583 (0.972)   109    966272                   64.95- 124.95    94.95
-------------------------------------------------------------------------------
   93 Chlorobenzene                                CAS #: 108-90-7
 22.233  22.233 (1.001)   112   1360172 10.0000   10.191  80.00- 120.00   100.00
 22.233  22.233 (1.001)   114    433519                    1.87-  61.87    31.87
 22.233  22.233 (1.001)    77    802776                   29.02-  89.02    59.02
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                CAS #: 100-41-4
 22.315  22.315 (1.005)   106    643593 10.0000   10.744  80.00- 120.00   100.00
 22.315  22.315 (1.005)    91   1979659                  277.59- 337.59   307.59
-------------------------------------------------------------------------------
   96 m,p-Xylene                                   CAS #: 108-38-3
 22.480  22.480 (1.012)   106    621094 10.0000   10.515  80.00- 120.00   100.00
 22.480  22.480 (1.012)    91   1236994                  169.16- 229.16   199.16
-------------------------------------------------------------------------------
  100 o-Xylene                                     CAS #: 95-47-6
 23.001  23.001 (1.036)   106    596795 10.0000   10.858  80.00- 120.00   100.00
 23.001  23.001 (1.036)    91   1271167                  183.00- 243.00   213.00
-------------------------------------------------------------------------------
  101 Styrene                                      CAS #: 100-42-5
 23.029  23.029 (1.037)   104    887531 10.0000   11.037  80.00- 120.00   100.00
 23.029  23.029 (1.037)    78    475113                   23.53-  83.53    53.53
-------------------------------------------------------------------------------
  102 Bromoform                                    CAS #: 75-25-2
 23.331  23.331 (1.051)   173   1058502 10.0000   10.489  80.00- 120.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 555198 | | | 22.45- 82.45 | 52.45 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 1717355 | 10.0000 | 10.699 | 80.00- 120.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 476342 | | | 0.00- 57.74 | 27.74 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 1217639 | 10.0000 | 9.875 | 80.00- 120.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 765023 | | | 32.83- 92.83 | 62.83 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 1482240 | 10.0000 | 10.411 | 80.00- 120.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 352684 | | | 0.00- 53.79 | 23.79 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 1055532 | 10.0000 | 10.106 | 80.00- 120.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 322459 | | | 0.55- 60.55 | 30.55 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 962969 | 10.0000 | 11.042 | 80.00- 120.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 451367 | | | 16.87- 76.87 | 46.87 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 692871 | 10.0000 | 9.810 | 80.00- 120.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 323171 | | | 16.64- 76.64 | 46.64 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 708316 | 10.0000 | 10.393 | 80.00- 120.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 459651 | | | 34.89- 94.89 | 64.89 |
| 24.902 | 24.902 (1.121) | 111 | 289887 | | | 10.93- 70.93 | 40.93 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 650697 | 10.0000 | 10.156 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 411038 | | | 33.17- 93.17 | 63.17 |
| 24.992 | 24.992 (1.125) | 111 | 255449 | | | 9.26- 69.26 | 39.26 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.127 | 25.127 (1.132) | 91 | 745711 | 10.0000 | 10.893 | 80.00- 120.00 | 100.00 |
| 25.127 | 25.127 (1.132) | 126 | 159575 | | | 0.00- 51.40 | 21.40 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.396 | 25.396 (1.144) | 146 | 658448 | 10.0000 | 10.413 | 80.00- 120.00 | 100.00 |
| 25.396 | 25.396 (1.144) | 148 | 420667 | | | 33.89- 93.89 | 63.89 |
| 25.396 | 25.396 (1.144) | 111 | 277687 | | | 12.17- 72.17 | 42.17 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 424695 | 10.0000 | 9.152 | 80.00- 120.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 398200 | | | 63.76- 123.76 | 93.76 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.167 (1.223) | 225 | 376991 | 10.0000 | 9.713 | 80.00- 120.00 | 100.00 |
| 27.167 | 27.167 (1.223) | 223 | 241135 | | | 33.96- 93.96 | 63.96 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.368 | 27.368 (1.232) | 128 | 119738 | 1.00000 | 1.090 | 80.00- 120.00 | 100.00 |
| 27.391 | 27.391 (1.234) | 127 | 15877 | | | 0.00- 43.26 | 13.26 |

Report Date: 31-Oct-2014 10:34

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100611.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 10
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 125097 | 0.00 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 498199 | 0.00 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 406420 | 0.00 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100611.d



Date : 06-OCT-2014 18:36

Client ID: Level 10

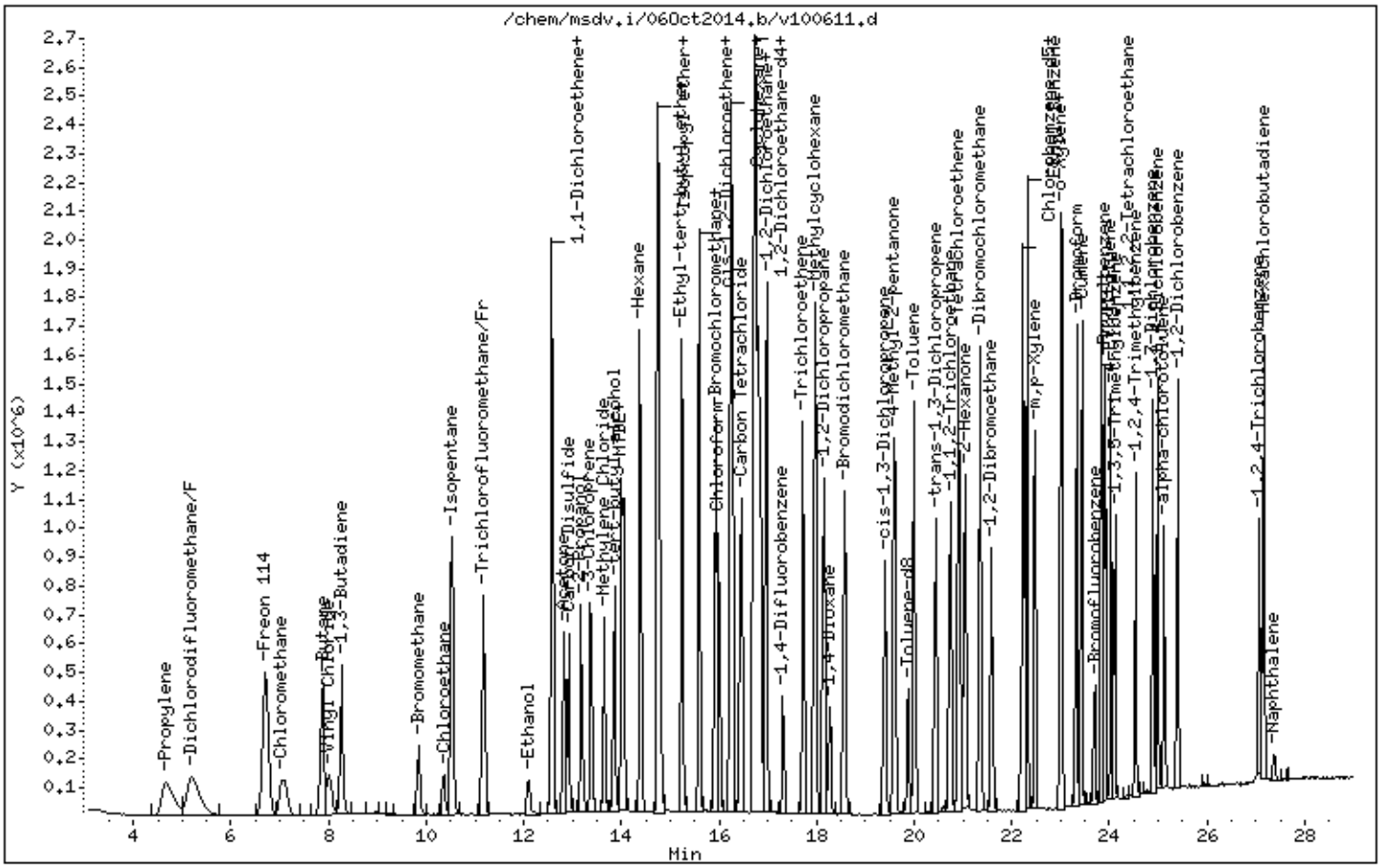
Instrument: msdv.i

Sample Info: 50mL #2677-212; ICAL; Level 10

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100612.d
Lab Smp Id: ICAL Client Smp ID: Level 11
Inj Date : 06-OCT-2014 19:24
Operator : gh Inst ID: msdv.i
Smp Info : 100mL #2677-212
Misc Info : 20ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 19:24 Cal File: v100612.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 130018 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 99874 | | | 47.54- 107.54 | 76.82 |
| 15.933 | 15.933 (1.000) | 49 | 332381 | | | 218.45- 278.45 | 255.64 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 507495 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 82175 | | | 0.00- 46.16 | 16.19 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 411197 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 241976 | | | 29.12- 89.12 | 58.85 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 244862 | 5.00000 | 5.132 | 70.00- 130.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 169868 | | | 28.37- 88.37 | 69.37 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 492481 | 5.00000 | 5.047 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 57949 | | | 0.00- 41.90 | 11.77 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    317004                    33.85-  93.85    64.37
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    193012 5.00000    5.458  70.00- 130.00   100.00
 23.678  23.678 (1.066)    95    256856                   99.95- 159.95   133.08
 23.704  23.704 (1.067)   176    185377                   67.64- 127.64    96.04
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.711   4.711 (0.296)    41   1343529 20.0000   18.419  70.00- 130.00   100.00
  4.674   4.674 (0.293)    42    873900                   35.18-  95.18    65.05
  4.674   4.674 (0.293)    39    996227                   44.12- 104.12    74.15
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.240 (0.329)    85   2381146 20.0000   19.548  70.00- 130.00   100.00
  5.240   5.240 (0.329)    87    765291                    1.90-  61.90    32.14
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.750   6.750 (0.424)   135   1687749 20.0000   19.401  70.00- 130.00   100.00
  6.750   6.750 (0.424)   137    546891                    0.53-  60.53    32.40
  6.750   6.750 (0.424)    85   2544166                  121.37- 181.37   150.74
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.090   7.090 (0.445)    50   1342544 20.0000   18.289  70.00- 130.00   100.00
  7.090   7.090 (0.445)    52    414050                    1.81-  61.81    30.84
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.885   7.885 (0.495)    58    238933 20.0000   19.422  70.00- 130.00   100.00
  7.885   7.885 (0.495)    43   2627380                 1065.18-1125.18  1099.63
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62   1067058 20.0000   19.480  70.00- 130.00   100.00
  8.009   8.009 (0.503)    64    316376                    0.00-  58.65    29.65
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54   1053809 20.0000   19.624  70.00- 130.00   100.00
  8.257   8.257 (0.518)    39   1394079                  107.15- 167.15   132.29
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    713827 20.0000   21.256  70.00- 130.00   100.00
  9.834   9.834 (0.617)    96    652673                   72.12- 132.12    91.43
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.364  10.364 (0.650)    64    502505 20.0000   19.739  70.00- 130.00   100.00
 10.364  10.364 (0.650)    66    151047                    0.00-  59.90    30.06
-------------------------------------------------------------------------------
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| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 1046356 | 20.0000 | 19.953 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 2109327 | | | 171.32- 231.32 | 201.59 |
| 10.533 | 10.533 (0.661) | 42 | 1866026 | | | 150.03- 210.03 | 178.34 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.184 | 11.184 (0.702) | 101 | 2414755 | 20.0000 | 19.258 | 70.00- 130.00 | 100.00 |
| 11.184 | 11.184 (0.702) | 103 | 1561129 | | | 36.54- 96.54 | 64.65 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.760) | 45 | 569415 | 20.0000 | 21.423 | 70.00- 130.00 | 100.00 |
| 12.101 | 12.101 (0.760) | 46 | 212968 | | | 8.51- 68.51 | 37.40 |
| 12.101 | 12.101 (0.760) | 43 | 111414 | | | 0.00- 54.10 | 19.57 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 550535 | 20.0000 | 19.648 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 1926358 | | | 320.65- 380.65 | 349.91 |
| 12.568 | 12.568 (0.789) | 96 | 877917 | | | 134.30- 194.30 | 159.47 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 1431147 | 20.0000 | 18.962 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 904227 | | | 33.10- 93.10 | 63.18 |
| 12.568 | 12.568 (0.789) | 101 | 1807783 | | | 96.37- 156.37 | 126.32 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 601932 | 20.0000 | 19.595 | 70.00- 130.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 2684362 | | | 413.15- 473.15 | 445.96 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.926 | 12.926 (0.811) | 76 | 2355703 | 20.0000 | 19.767 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.392 | 13.392 (0.841) | 76 | 365971 | 20.0000 | 21.280 | 70.00- 130.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 2124062 | | | 547.03- 607.03 | 580.39 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 2980719 | 20.0000 | 20.954 | 70.00- 130.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 576337 | | | 0.00- 50.74 | 19.34 |
| 13.173 | 13.173 (0.827) | 59 | 84883 | | | 0.00- 32.83 | 2.85 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.667 | 13.667 (0.858) | 84 | 771457 | 20.0000 | 19.517 | 70.00- 130.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 1883006 | | | 212.37- 272.37 | 244.08 |
| 13.640 | 13.640 (0.856) | 51 | 551783 | | | 43.31- 103.31 | 71.52 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 2580589 | 20.0000 | 20.699 | 70.00- 130.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41    796556                     1.97-  61.97    30.87
 13.859  13.859 (0.870)    57    279874                     0.00-  40.67    10.85
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.997  13.997 (0.878)    73   2789745 20.0000   19.672  70.00- 130.00   100.00
 13.997  13.997 (0.878)    57    919358                     2.99-  62.99    32.95
 13.997  13.997 (0.878)    41   1172986                    12.12-  72.12    42.05
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.051  14.051 (0.882)    98    542006 20.0000   20.445  70.00- 130.00   100.00
 14.051  14.051 (0.882)    61   1647876                   293.73- 353.73   304.03
 14.051  14.051 (0.882)    96    857236                   146.88- 206.88   158.16
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57   2199087 20.0000   19.379  70.00- 130.00   100.00
 14.381  14.381 (0.903)    43   1938725                    57.65- 117.65    88.16
 14.381  14.381 (0.903)    86    236882                     0.00-  40.67    10.77
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45   5971001 20.0000   20.255  70.00- 130.00   100.00
 14.738  14.738 (0.925)    87    790523                     0.00-  43.44    13.24
 14.738  14.738 (0.925)    59    483305                     0.00-  38.34     8.09
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63   2148070 20.0000   19.507  70.00- 130.00   100.00
 14.765  14.765 (0.927)    65    653174                     0.37-  60.37    30.41
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86    240609 20.0000   21.406  70.00- 130.00   100.00
 14.793  14.793 (0.928)    42    663452                   220.92- 280.92   275.74
 14.793  14.793 (0.928)    43   8065068                  3282.47-3342.47  3351.94
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59   4051151 20.0000   20.166  70.00- 130.00   100.00
 15.240  15.240 (0.956)    87   1164844                     0.00-  58.71    28.75
 15.240  15.240 (0.956)    41   1056551                     0.00-  56.39    26.08
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98    709991 20.0000   20.181  70.00- 130.00   100.00
 15.592  15.592 (0.979)    61   1967313                   248.69- 308.69   277.09
 15.592  15.592 (0.979)    96   1111670                   132.55- 192.55   156.58
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.592 (0.979)    72    490119 20.0000   21.436  70.00- 130.00   100.00
 15.572  15.572 (0.977)    43   3895126                   794.80- 854.80   794.73
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   51 2-Butanone (continued)
 15.592  15.592 (0.979)    57    226720                    18.01-  78.01    46.26
-------------------------------------------------------------------------------
   53 Tetrahydrofuran                                CAS #: 109-99-9
 15.933  15.933 (1.000)    42   2382176 20.0000   20.218  70.00- 130.00   100.00
 15.933  15.933 (1.000)    71    453730                     0.00-  49.03    19.05
 15.933  15.933 (1.000)    72    489317                     0.00-  51.35    20.54
-------------------------------------------------------------------------------
   55 Chloroform                                     CAS #: 67-66-3
 15.995  15.995 (1.004)    83   2095211 20.0000   19.122  70.00- 130.00   100.00
 15.995  15.995 (1.004)    85   1339231                    33.33-  93.33    63.92
-------------------------------------------------------------------------------
   57 Cyclohexane                                    CAS #: 110-82-7
 16.273  16.273 (1.021)    84   1338220 20.0000   19.419  70.00- 130.00   100.00
 16.273  16.273 (1.021)    56   2485393                   157.43- 217.43   185.72
 16.273  16.273 (1.021)    41   1830806                   105.99- 165.99   136.81
-------------------------------------------------------------------------------
   58 1,1,1-Trichloroethane                          CAS #: 71-55-6
 16.242  16.242 (1.019)    97   2210215 20.0000   19.318  70.00- 130.00   100.00
 16.242  16.242 (1.019)    99   1391476                    32.16-  92.16    62.96
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                           CAS #: 56-23-5
 16.457  16.457 (1.033)   119   2181026 20.0000   19.873  70.00- 130.00   100.00
 16.457  16.457 (1.033)   117   2215797                    69.67- 129.67   101.59
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 16.728  16.728 (1.050)    56   2334858 20.0000   19.442  70.00- 130.00   100.00
 16.728  16.728 (1.050)    57   6783805                   258.69- 318.69   290.54
 16.728  16.728 (1.050)    41   2601651                    79.91- 139.91   111.43
-------------------------------------------------------------------------------
   64 Benzene                                        CAS #: 71-43-2
 16.756  16.756 (0.968)    78   2889555 20.0000   19.294  70.00- 130.00   100.00
 16.756  16.756 (0.968)    77    676474                     0.00-  53.73    23.41
-------------------------------------------------------------------------------
   66 tert-amyl methyl ether                         CAS #: 994-05-8
 16.811  16.811 (0.971)    87    699668 20.0000   20.632  70.00- 130.00   100.00
 16.811  16.811 (0.971)    73   2921325                   399.95- 459.95   417.53
 16.811  16.811 (0.971)    55   1149825                   143.62- 203.62   164.34
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                             CAS #: 107-06-2
 16.865  16.865 (0.975)    62   1791940 20.0000   19.744  70.00- 130.00   100.00
 16.865  16.865 (0.975)    64    557807                     1.11-  61.11    31.13
-------------------------------------------------------------------------------
   69 Heptane                                        CAS #: 142-82-5
 16.975  16.975 (0.981)    57   1306196 20.0000   20.236  70.00- 130.00   100.00
 16.975  16.975 (0.981)   100    280760                     0.00-  51.27    21.49
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 3451641 | | | 235.24- 295.24 | 264.25 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.717 | 17.717 (1.024) | 130 | 1366780 | 20.0000 | 20.273 | 70.00- 130.00 | 100.00 |
| 17.717 | 17.717 (1.024) | 95 | 1353380 | | | 71.16- 131.16 | 99.02 |
| 17.717 | 17.717 (1.024) | 97 | 864828 | | | 33.04- 93.04 | 63.27 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.964 | 17.964 (1.038) | 83 | 1775063 | 20.0000 | 20.050 | 70.00- 130.00 | 100.00 |
| 17.964 | 17.964 (1.038) | 98 | 809326 | | | 15.02- 75.02 | 45.59 |
| 17.964 | 17.964 (1.038) | 55 | 2231253 | | | 95.64- 155.64 | 125.70 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 1386274 | 20.0000 | 20.178 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 1021855 | | | 45.17- 105.17 | 73.71 |
| 18.156 | 18.156 (1.049) | 41 | 1249126 | | | 59.65- 119.65 | 90.11 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.266 | 18.266 (1.056) | 88 | 707003 | 20.0000 | 20.477 | 70.00- 130.00 | 100.00 |
| 18.266 | 18.266 (1.056) | 58 | 717250 | | | 72.13- 132.13 | 101.45 |
| 18.266 | 18.266 (1.056) | 57 | 235307 | | | 4.41- 64.41 | 33.28 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 2328634 | 20.0000 | 20.474 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 1493796 | | | 32.12- 92.12 | 64.15 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 1623589 | 20.0000 | 20.887 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 510761 | | | 1.25- 61.25 | 31.46 |
| 19.408 | 19.408 (1.122) | 39 | 1619534 | | | 71.17- 131.17 | 99.75 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.588 | 19.588 (1.132) | 43 | 4631476 | 20.0000 | 21.909 | 70.00- 130.00 | 100.00 |
| 19.588 | 19.588 (1.132) | 58 | 1249401 | | | 0.00- 57.24 | 26.98 |
| 19.588 | 19.588 (1.132) | 85 | 388036 | | | 0.00- 38.20 | 8.38 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 3273959 | 20.0000 | 19.804 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 1902249 | | | 28.60- 88.60 | 58.10 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 1765207 | 20.0000 | 20.826 | 70.00- 130.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 556337 | | | 5.48- 65.48 | 31.52 |
| 20.435 | 20.435 (0.920) | 39 | 1613608 | | | 63.15- 123.15 | 91.41 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                          CAS #: 79-00-5
 20.758  20.758 (0.935)    97   1284428 20.0000   19.844  70.00- 130.00   100.00
 20.758  20.758 (0.935)    99    795501                   32.13-  92.13    61.93
 20.758  20.758 (0.935)    83   1127004                   57.82- 117.82    87.74
-------------------------------------------------------------------------------
   86 Tetrachloroethene                              CAS #: 127-18-4
 20.901  20.901 (0.941)   166   1615920 20.0000   19.310  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129   1280165                   47.04- 107.04    79.22
 20.901  20.901 (0.941)   131   1234248                   46.95- 106.95    76.38
-------------------------------------------------------------------------------
   87 2-Hexanone                                     CAS #: 591-78-6
 21.044  21.044 (0.948)    58   1578014 20.0000   21.772  70.00- 130.00   100.00
 21.044  21.044 (0.948)    43   4219487                  242.48- 302.48   267.39
 21.044  21.044 (0.948)   100    225657                    0.00-  43.88    14.30
-------------------------------------------------------------------------------
   89 Dibromochloromethane                           CAS #: 124-48-1
 21.367  21.367 (0.962)   129   2428496 20.0000   20.159  70.00- 130.00   100.00
 21.367  21.367 (0.962)   127   1887593                   50.38- 110.38    77.73
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                              CAS #: 106-93-4
 21.583  21.583 (0.972)   107   2057808 20.0000   20.408  70.00- 130.00   100.00
 21.583  21.583 (0.972)   109   1912402                   62.69- 122.69    92.93
-------------------------------------------------------------------------------
   93 Chlorobenzene                                  CAS #: 108-90-7
 22.233  22.233 (1.001)   112   2639475 20.0000   19.547  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114    836900                    1.62-  61.62    31.71
 22.233  22.233 (1.001)    77   1591582                   38.66-  98.66    60.30
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                  CAS #: 100-41-4
 22.315  22.315 (1.005)   106   1261620 20.0000   20.816  70.00- 130.00   100.00
 22.315  22.315 (1.005)    91   3956425                  292.36- 352.36   313.60
-------------------------------------------------------------------------------
   96 m,p-Xylene                                     CAS #: 108-38-3
 22.480  22.480 (1.012)   106   1213072 20.0000   20.298  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91   2459215                  164.15- 224.15   202.73
-------------------------------------------------------------------------------
  100 o-Xylene                                       CAS #: 95-47-6
 23.001  23.001 (1.036)   106   1194131 20.0000   21.473  70.00- 130.00   100.00
 23.001  23.001 (1.036)    91   2528984                  186.63- 246.63   211.78
-------------------------------------------------------------------------------
  101 Styrene                                        CAS #: 100-42-5
 23.029  23.029 (1.037)   104   1836202 20.0000   22.569  70.00- 130.00   100.00
 23.029  23.029 (1.037)    78    980074                   28.70-  88.70    53.38
-------------------------------------------------------------------------------
  102 Bromoform                                      CAS #: 75-25-2
 23.331  23.331 (1.051)   173   2152221 20.0000   21.079  70.00- 130.00   100.00
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| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 1107873 | | | 20.40- 80.40 | 51.48 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 3469931 | 20.0000 | 21.367 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 965676 | | | 0.00- 57.73 | 27.83 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.833 (1.073) | 83 | 2417998 | 20.0000 | 19.383 | 70.00- 130.00 | 100.00 |
| 23.833 | 23.833 (1.073) | 85 | 1546993 | | | 34.81- 94.81 | 63.98 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 3123067 | 20.0000 | 21.681 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 730618 | | | 0.00- 53.83 | 23.39 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 2151564 | 20.0000 | 20.360 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 674008 | | | 0.18- 60.18 | 31.33 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 1845022 | 20.0000 | 20.911 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 875220 | | | 20.44- 80.44 | 47.44 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 1332054 | 20.0000 | 18.640 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 625533 | | | 19.27- 79.27 | 46.96 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 1448037 | 20.0000 | 21.000 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 929989 | | | 38.48- 98.48 | 64.22 |
| 24.902 | 24.902 (1.121) | 111 | 593358 | | | 10.49- 70.49 | 40.98 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 1299342 | 20.0000 | 20.044 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 824787 | | | 38.92- 98.92 | 63.48 |
| 24.992 | 24.992 (1.125) | 111 | 502552 | | | 11.61- 71.61 | 38.68 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.127 | 25.127 (1.132) | 91 | 1540002 | 20.0000 | 22.235 | 70.00- 130.00 | 100.00 |
| 25.127 | 25.127 (1.132) | 126 | 324902 | | | 0.00- 52.82 | 21.10 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.396 | 25.396 (1.144) | 146 | 1338659 | 20.0000 | 20.924 | 70.00- 130.00 | 100.00 |
| 25.396 | 25.396 (1.144) | 148 | 845031 | | | 36.09- 96.09 | 63.13 |
| 25.396 | 25.396 (1.144) | 111 | 555919 | | | 13.38- 73.38 | 41.53 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 761828 | 20.0000 | 16.226 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 727803 | | | 64.14- 124.14 | 95.53 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.167 (1.223) | 225 | 761391 | 20.0000 | 19.390 | 70.00- 130.00 | 100.00 |
| 27.167 | 27.167 (1.223) | 223 | 478865 | | | 44.27- 104.27 | 62.89 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.368 | 27.368 (1.232) | 128 | 205455 | 2.00000 | 1.848 | 70.00- 130.00 | 100.00 |
| 27.368 | 27.368 (1.232) | 127 | 27670 | | | 0.00- 47.41 | 13.47 |

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100612.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 11
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 130018 | 3.93 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 507495 | 1.87 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 411197 | 1.18 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100612.d



Date : 06-OCT-2014 19:24

Client ID: Level 11

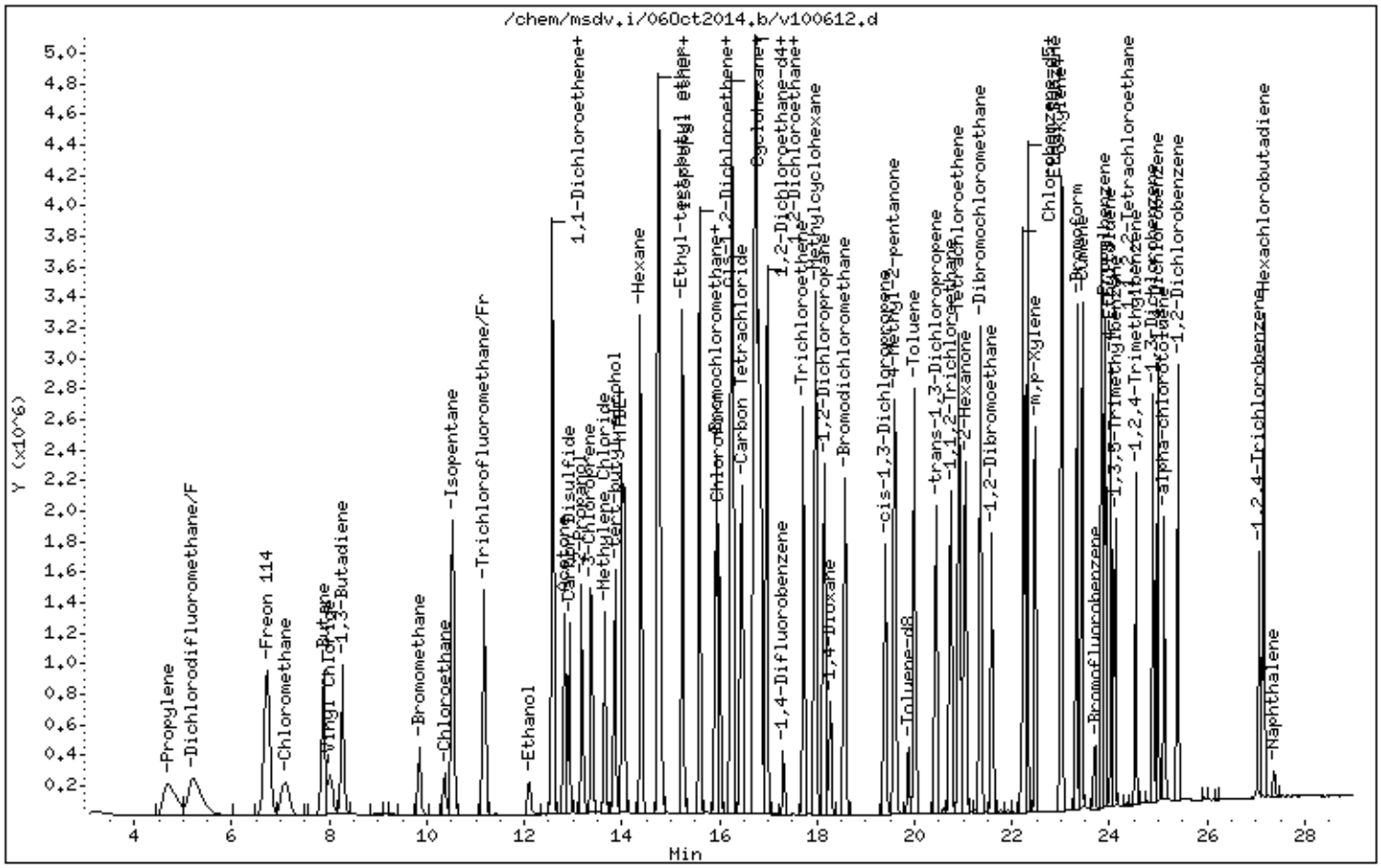
Instrument: msdv.i

Sample Info: 100mL #2677-212

Operator: gh

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100613.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 06-OCT-2014 20:51
Operator : gd Inst ID: msdv.i
Smp Info : 200mL #2677-212; ICAL; Level 12
Misc Info : 40ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 11:32 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 20:51 Cal File: v100613.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 133288 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 104012 | | | 47.54- 107.54 | 78.04 |
| 15.933 | 15.933 (1.000) | 49 | 368884 | | | 218.45- 278.45 | 276.76 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 505995 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 80571 | | | 0.00- 46.16 | 15.92 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 399674 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 239259 | | | 29.12- 89.12 | 59.86 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.755 | 16.755 (1.052) | 65 | 283553 | 5.00000 | 5.797 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 67 | 219107 | | | 28.37- 88.37 | 77.27 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 490969 | 5.00000 | 5.047 | 70.00- 130.00 | 100.00 |
| 19.856 | 19.856 (1.147) | 70 | 62128 | | | 0.00- 41.90 | 12.65 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    310869                    33.85-  93.85    63.32
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    172793 5.00000    5.027  70.00- 130.00   100.00
 23.678  23.678 (1.066)    95    228482                   99.95- 159.95   132.23
 23.704  23.704 (1.067)   176    178342                   67.64- 127.64   103.21
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.711   4.711 (0.296)    41   2764430 40.0000   36.968  70.00- 130.00   100.00
  4.711   4.711 (0.296)    42   1788819                   35.18-  95.18    64.71
  4.711   4.711 (0.296)    39   2028654                   44.12- 104.12    73.38
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.240   5.240 (0.329)    85   4761156 40.0000   38.127  70.00- 130.00   100.00
  5.240   5.240 (0.329)    87   1530149                    1.90-  61.90    32.14
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.750   6.750 (0.424)   135   3385741 40.0000   37.965  70.00- 130.00   100.00
  6.750   6.750 (0.424)   137   1087398                    0.53-  60.53    32.12
  6.713   6.713 (0.421)    85   5158925                  121.37- 181.37   152.37
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.128   7.128 (0.447)    50   2617213 40.0000   34.778  70.00- 130.00   100.00
  7.128   7.128 (0.447)    52    811961                    1.81-  61.81    31.02
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.884   7.884 (0.495)    58    496779 40.0000   39.391  70.00- 130.00   100.00
  7.884   7.884 (0.495)    43   5386138                 1065.18-1125.18  1084.21
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.008   8.008 (0.503)    62   2126137 40.0000   37.862  70.00- 130.00   100.00
  8.008   8.008 (0.503)    64    643249                    0.00-  58.65    30.25
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54   2163541 40.0000   39.300  70.00- 130.00   100.00
  8.257   8.257 (0.518)    39   2851029                  107.15- 167.15   131.78
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94   1359877 40.0000   39.501  70.00- 130.00   100.00
  9.834   9.834 (0.617)    96   1273847                   72.12- 132.12    93.67
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.364  10.364 (0.650)    64   1017682 40.0000   38.995  70.00- 130.00   100.00
 10.364  10.364 (0.650)    66    299666                    0.00-  59.90    29.45
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 2111444 | 40.0000 | 39.275 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 4283793 | | | 171.32- 231.32 | 202.88 |
| 10.533 | 10.533 (0.661) | 42 | 3762596 | | | 150.03- 210.03 | 178.20 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.183 (0.702) | 101 | 4843662 | 40.0000 | 37.682 | 70.00- 130.00 | 100.00 |
| 11.183 | 11.183 (0.702) | 103 | 3147433 | | | 36.54- 96.54 | 64.98 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.074 | 12.074 (0.758) | 45 | 1153556 | 40.0000 | 42.335 | 70.00- 130.00 | 100.00(A) |
| 12.074 | 12.074 (0.758) | 46 | 445269 | | | 8.51- 68.51 | 38.60 |
| 12.074 | 12.074 (0.758) | 43 | 227109 | | | 0.00- 54.10 | 19.69 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 1114202 | 40.0000 | 38.790 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 3915697 | | | 320.65- 380.65 | 351.44 |
| 12.568 | 12.568 (0.789) | 96 | 1772868 | | | 134.30- 194.30 | 159.12 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 2842575 | 40.0000 | 36.738 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 1809564 | | | 33.10- 93.10 | 63.66 |
| 12.568 | 12.568 (0.789) | 101 | 3620044 | | | 96.37- 156.37 | 127.35 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 1231000 | 40.0000 | 39.090 | 70.00- 130.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 5378857 | | | 413.15- 473.15 | 436.95 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 4863273 | 40.0000 | 39.806 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.365 | 13.365 (0.839) | 76 | 754315 | 40.0000 | 42.784 | 70.00- 130.00 | 100.00(A) |
| 13.365 | 13.365 (0.839) | 41 | 4466599 | | | 547.03- 607.03 | 592.14 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 6188770 | 40.0000 | 42.439 | 70.00- 130.00 | 100.00(A) |
| 13.173 | 13.173 (0.827) | 43 | 1165056 | | | 0.00- 50.74 | 18.83 |
| 13.173 | 13.173 (0.827) | 59 | 177128 | | | 0.00- 32.83 | 2.86 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 1535338 | 40.0000 | 37.889 | 70.00- 130.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 3766027 | | | 212.37- 272.37 | 245.29 |
| 13.640 | 13.640 (0.856) | 51 | 1110657 | | | 43.31- 103.31 | 72.34 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 5350684 | 40.0000 | 41.866 | 70.00- 130.00 | 100.00(A) |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41   1591633                     1.97-  61.97    29.75
 13.859  13.859 (0.870)    57    564204                     0.00-  40.67    10.54
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.996  13.996 (0.878)    73   5618180 40.0000   38.644  70.00- 130.00   100.00
 13.996  13.996 (0.878)    57   1842919                     2.99-  62.99    32.80
 13.996  13.996 (0.878)    41   2374145                    12.12-  72.12    42.26
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.051  14.051 (0.882)    98   1105067 40.0000   40.661  70.00- 130.00   100.00(A)
 14.051  14.051 (0.882)    61   3369032                   293.73- 353.73   304.87
 14.051  14.051 (0.882)    96   1734460                   146.88- 206.88   156.96
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57   4340671 40.0000   37.313  70.00- 130.00   100.00
 14.381  14.381 (0.903)    43   3911582                    57.65- 117.65    90.11
 14.381  14.381 (0.903)    86    470605                     0.00-  40.67    10.84
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45  12014430 40.0000   39.755  70.00- 130.00   100.00
 14.738  14.738 (0.925)    87   1594010                     0.00-  43.44    13.27
 14.738  14.738 (0.925)    59    973341                     0.00-  38.34     8.10
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63   4362323 40.0000   38.642  70.00- 130.00   100.00
 14.765  14.765 (0.927)    65   1318833                     0.37-  60.37    30.23
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86    492601 40.0000   42.749  70.00- 130.00   100.00(A)
 14.793  14.793 (0.928)    42   1346946                   220.92- 280.92   273.44
 14.793  14.793 (0.928)    43  16428814                  3282.47-3342.47  3335.12
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59   8326642 40.0000   40.433  70.00- 130.00   100.00(A)
 15.240  15.240 (0.956)    87   2370929                     0.00-  58.71    28.47
 15.240  15.240 (0.956)    41   2140397                     0.00-  56.39    25.71
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98   1428798 40.0000   39.617  70.00- 130.00   100.00
 15.592  15.592 (0.979)    61   3976357                   248.69- 308.69   278.30
 15.592  15.592 (0.979)    96   2268672                   132.55- 192.55   158.78
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.571  15.571 (0.977)    72   1007076 40.0000   42.965  70.00- 130.00   100.00(A)
 15.571  15.571 (0.977)    43   8056534                   794.80- 854.80   799.99
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   51 2-Butanone (continued)
 15.571  15.571 (0.977)    57    467214                    18.01-  78.01    46.39
-------------------------------------------------------------------------------
   53 Tetrahydrofuran                                CAS #: 109-99-9
 15.933  15.933 (1.000)    42   4825600 40.0000   39.951  70.00- 130.00   100.00
 15.933  15.933 (1.000)    71    913037                     0.00-  49.03    18.92
 15.933  15.933 (1.000)    72    973882                     0.00-  51.35    20.18
-------------------------------------------------------------------------------
   55 Chloroform                                     CAS #: 67-66-3
 15.995  15.995 (1.004)    83   4217453 40.0000   37.547  70.00- 130.00   100.00
 15.995  15.995 (1.004)    85   2708747                    33.33-  93.33    64.23
-------------------------------------------------------------------------------
   57 Cyclohexane                                    CAS #: 110-82-7
 16.242  16.242 (1.019)    84   2692240 40.0000   38.109  70.00- 130.00   100.00
 16.242  16.242 (1.019)    56   5036537                   157.43- 217.43   187.08
 16.242  16.242 (1.019)    41   3726694                   105.99- 165.99   138.42
-------------------------------------------------------------------------------
   58 1,1,1-Trichloroethane                          CAS #: 71-55-6
 16.242  16.242 (1.019)    97   4452521 40.0000   37.961  70.00- 130.00   100.00
 16.242  16.242 (1.019)    99   2852439                    32.16-  92.16    64.06
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                           CAS #: 56-23-5
 16.457  16.457 (1.033)   119   4353454 40.0000   38.694  70.00- 130.00   100.00
 16.457  16.457 (1.033)   117   4401967                    69.67- 129.67   101.11
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 16.728  16.728 (1.050)    56   4644293 40.0000   37.724  70.00- 130.00   100.00
 16.728  16.728 (1.050)    57  13569051                   258.69- 318.69   292.17
 16.728  16.728 (1.050)    41   5218846                    79.91- 139.91   112.37
-------------------------------------------------------------------------------
   64 Benzene                                        CAS #: 71-43-2
 16.755  16.755 (0.968)    78   5743876 40.0000   38.466  70.00- 130.00   100.00
 16.755  16.755 (0.968)    77   1372019                     0.00-  53.73    23.89
-------------------------------------------------------------------------------
   66 tert-amyl methyl ether                         CAS #: 994-05-8
 16.810  16.810 (0.971)    87   1375347 40.0000   40.676  70.00- 130.00   100.00(A)
 16.810  16.810 (0.971)    73   5886788                   399.95- 459.95   428.02
 16.810  16.810 (0.971)    55   2251783                   143.62- 203.62   163.72
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                             CAS #: 107-06-2
 16.865  16.865 (0.975)    62   3583746 40.0000   39.603  70.00- 130.00   100.00
 16.865  16.865 (0.975)    64   1126552                     1.11-  61.11    31.44
-------------------------------------------------------------------------------
   69 Heptane                                        CAS #: 142-82-5
 16.975  16.975 (0.981)    57   2573577 40.0000   39.990  70.00- 130.00   100.00
 16.975  16.975 (0.981)   100    560841                     0.00-  51.27    21.79
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   69 Heptane (continued)
 16.975  16.975 (0.981)    43   6711905                  235.24- 295.24   260.80
-------------------------------------------------------------------------------
   72 Trichloroethene                                CAS #: 79-01-6
 17.716  17.716 (1.024)   130   2712588 40.0000   40.355  70.00- 130.00   100.00(A)
 17.716  17.716 (1.024)    95   2727681                   71.16- 131.16   100.56
 17.716  17.716 (1.024)    97   1749453                   33.04-  93.04    64.49
-------------------------------------------------------------------------------
   73 Methylcyclohexane                              CAS #: 108-87-2
 17.964  17.964 (1.038)    83   3550335 40.0000   40.221  70.00- 130.00   100.00(A)
 17.964  17.964 (1.038)    98   1597312                   15.02-  75.02    44.99
 17.964  17.964 (1.038)    55   4429025                   95.64- 155.64   124.75
-------------------------------------------------------------------------------
   74 1,2-Dichloropropane                            CAS #: 78-87-5
 18.156  18.156 (1.049)    63   2792715 40.0000   40.771  70.00- 130.00   100.00(A)
 18.156  18.156 (1.049)    62   2038393                   45.17- 105.17    72.99
 18.156  18.156 (1.049)    41   2487701                   59.65- 119.65    89.08
-------------------------------------------------------------------------------
   75 1,4-Dioxane                                    CAS #: 123-91-1
 18.266  18.266 (1.056)    88   1439381 40.0000   41.813  70.00- 130.00   100.00(A)
 18.266  18.266 (1.056)    58   1445921                   72.13- 132.13   100.45
 18.266  18.266 (1.056)    57    479382                    4.41-  64.41    33.30
-------------------------------------------------------------------------------
   77 Bromodichloromethane                           CAS #: 75-27-4
 18.568  18.568 (1.073)    83   4738096 40.0000   41.782  70.00- 130.00   100.00(A)
 18.568  18.568 (1.073)    85   2999766                   32.12-  92.12    63.31
-------------------------------------------------------------------------------
   78 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 19.386  19.386 (1.120)    75   3359572 40.0000   43.347  70.00- 130.00   100.00(A)
 19.386  19.386 (1.120)    77   1054092                    1.25-  61.25    31.38
 19.386  19.386 (1.120)    39   3398981                   71.17- 131.17   101.17
-------------------------------------------------------------------------------
   79 4-Methyl-2-pentanone                           CAS #: 108-10-1
 19.587  19.587 (1.132)    43   9402530 40.0000   44.611  70.00- 130.00   100.00(A)
 19.587  19.587 (1.132)    58   2554741                    0.00-  57.24    27.17
 19.587  19.587 (1.132)    85    785430                    0.00-  38.20     8.35
-------------------------------------------------------------------------------
   81 Toluene                                        CAS #: 108-88-3
 19.991  19.991 (1.155)    91   6390598 40.0000   38.772  70.00- 130.00   100.00
 19.991  19.991 (1.155)    92   3701992                   28.60-  88.60    57.93
-------------------------------------------------------------------------------
   82 trans-1,3-Dichloropropene                      CAS #: 10061-02-6
 20.435  20.435 (0.920)    75   3563298 40.0000   43.252  70.00- 130.00   100.00(A)
 20.435  20.435 (0.920)    77   1107358                    5.48-  65.48    31.08
 20.435  20.435 (0.920)    39   3299370                   63.15- 123.15    92.59
-------------------------------------------------------------------------------
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```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.757  20.757 (0.935)    97   2554853 40.0000   40.610  70.00- 130.00   100.00(A)
 20.757  20.757 (0.935)    99   1594620                   32.13-  92.13    62.42
 20.757  20.757 (0.935)    83   2249514                   57.82- 117.82    88.05
-------------------------------------------------------------------------------
   86 Tetrachloroethene                            CAS #: 127-18-4
 20.901  20.901 (0.941)   166   3160025 40.0000   38.851  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129   2476191                   47.04- 107.04    78.36
 20.901  20.901 (0.941)   131   2439567                   46.95- 106.95    77.20
-------------------------------------------------------------------------------
   87 2-Hexanone                                   CAS #: 591-78-6
 21.044  21.044 (0.948)    58   3153192 40.0000   44.759  70.00- 130.00   100.00(A)
 21.009  21.009 (0.946)    43   8437963                  242.48- 302.48   267.60
 21.044  21.044 (0.948)   100    435779                    0.00-  43.88    13.82
-------------------------------------------------------------------------------
   89 Dibromochloromethane                         CAS #: 124-48-1
 21.367  21.367 (0.962)   129   4969656 40.0000   42.443  70.00- 130.00   100.00(A)
 21.367  21.367 (0.962)   127   3848303                   50.38- 110.38    77.44
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                            CAS #: 106-93-4
 21.582  21.582 (0.972)   107   4142341 40.0000   42.266  70.00- 130.00   100.00(A)
 21.582  21.582 (0.972)   109   3852830                   62.69- 122.69    93.01
-------------------------------------------------------------------------------
   93 Chlorobenzene                                CAS #: 108-90-7
 22.233  22.233 (1.001)   112   5006470 40.0000   38.145  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114   1613603                    1.62-  61.62    32.23
 22.233  22.233 (1.001)    77   3581125                   38.66-  98.66    71.53
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                CAS #: 100-41-4
 22.315  22.315 (1.005)   106   2369839 40.0000   40.228  70.00- 130.00   100.00(A)
 22.315  22.315 (1.005)    91   7351647                  292.36- 352.36   310.22
-------------------------------------------------------------------------------
   96 m,p-Xylene                                   CAS #: 108-38-3
 22.480  22.480 (1.012)   106   2187058 40.0000   37.650  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91   4421717                  164.15- 224.15   202.18
-------------------------------------------------------------------------------
  100 o-Xylene                                     CAS #: 95-47-6
 23.001  23.001 (1.036)   106   2150896 40.0000   39.792  70.00- 130.00   100.00
 23.001  23.001 (1.036)    91   4556092                  186.63- 246.63   211.82
-------------------------------------------------------------------------------
  101 Styrene                                      CAS #: 100-42-5
 23.029  23.029 (1.037)   104   3322792 40.0000   42.019  70.00- 130.00   100.00(A)
 23.029  23.029 (1.037)    78   1780289                   28.70-  88.70    53.58
-------------------------------------------------------------------------------
  102 Bromoform                                    CAS #: 75-25-2
 23.331  23.331 (1.051)   173   4417045 40.0000   44.508  70.00- 130.00   100.00(A)
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  102 Bromoform (continued)
 23.331  23.331 (1.051)   171   2292892                   20.40-  80.40    51.91
-------------------------------------------------------------------------------
  103 Cumene                                        CAS #: 98-82-8
 23.441  23.441 (1.056)   105   6496854 40.0000   41.160  70.00- 130.00   100.00(A)
 23.441  23.441 (1.056)   120   1809651                    0.00-  57.73    27.85
-------------------------------------------------------------------------------
  108 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 23.832  23.832 (1.073)    83   4785264 40.0000   39.465  70.00- 130.00   100.00
 23.832  23.832 (1.073)    85   3051266                   34.81-  94.81    63.76
-------------------------------------------------------------------------------
  111 Propylbenzene                                 CAS #: 103-65-1
 23.910  23.910 (1.077)    91   5899900 40.0000   42.139  70.00- 130.00   100.00(A)
 23.910  23.910 (1.077)   120   1405606                    0.00-  53.83    23.82
-------------------------------------------------------------------------------
  113 4-Ethyltoluene                                CAS #: 622-96-8
 24.039  24.039 (1.083)   105   4030948 40.0000   39.244  70.00- 130.00   100.00
 24.039  24.039 (1.083)   120   1250581                    0.18-  60.18    31.02
-------------------------------------------------------------------------------
  114 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.116  24.116 (1.086)   105   2848186 40.0000   33.211  70.00- 130.00   100.00
 24.116  24.116 (1.086)   120   1364301                   20.44-  80.44    47.90
-------------------------------------------------------------------------------
  120 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.529  24.529 (1.105)   105   2171830 40.0000   31.267  70.00- 130.00   100.00
 24.529  24.529 (1.105)   120   1004547                   19.27-  79.27    46.25
-------------------------------------------------------------------------------
  122 1,3-Dichlorobenzene                           CAS #: 541-73-1
 24.902  24.902 (1.121)   146   2569446 40.0000   38.337  70.00- 130.00   100.00
 24.902  24.902 (1.121)   148   1625153                   38.48-  98.48    63.25
 24.902  24.902 (1.121)   111   1051353                   10.49-  70.49    40.92
-------------------------------------------------------------------------------
  124 1,4-Dichlorobenzene                           CAS #: 106-46-7
 24.992  24.992 (1.125)   146   2316818 40.0000   36.770  70.00- 130.00   100.00
 24.992  24.992 (1.125)   148   1482807                   38.92-  98.92    64.00
 24.992  24.992 (1.125)   111    911374                   11.61-  71.61    39.34
-------------------------------------------------------------------------------
  127 alpha-chlorotoluene                           CAS #: 100-44-7
 25.126  25.126 (1.132)    91   2847760 40.0000   42.303  70.00- 130.00   100.00(A)
 25.126  25.126 (1.132)   126    602569                    0.00-  52.82    21.16
-------------------------------------------------------------------------------
  128 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.395  25.395 (1.144)   146   2327204 40.0000   37.424  70.00- 130.00   100.00
 25.395  25.395 (1.144)   148   1490115                   36.09-  96.09    64.03
 25.395  25.395 (1.144)   111    973556                   13.38-  73.38    41.83
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 965379 | 40.0000 | 21.154 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 927185 | | | 64.14- 124.14 | 96.04 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 (1.223) | 225 | 1586754 | 40.0000 | 41.574 | 70.00- 130.00 | 100.00(A) |
| 27.166 | 27.166 (1.223) | 223 | 989377 | | | 44.27- 104.27 | 62.35 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.368 | 27.368 (1.232) | 128 | 254250 | 4.00000 | 2.352 | 70.00- 130.00 | 100.00 |
| 27.368 | 27.368 (1.232) | 127 | 32597 | | | 0.00- 47.41 | 12.82 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 07-Oct-2014 11:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100613.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 133288 | 6.55 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 505995 | 1.56 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 399674 | -1.66 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100613.d



Date : 06-OCT-2014 20:51

Client ID: Level 12

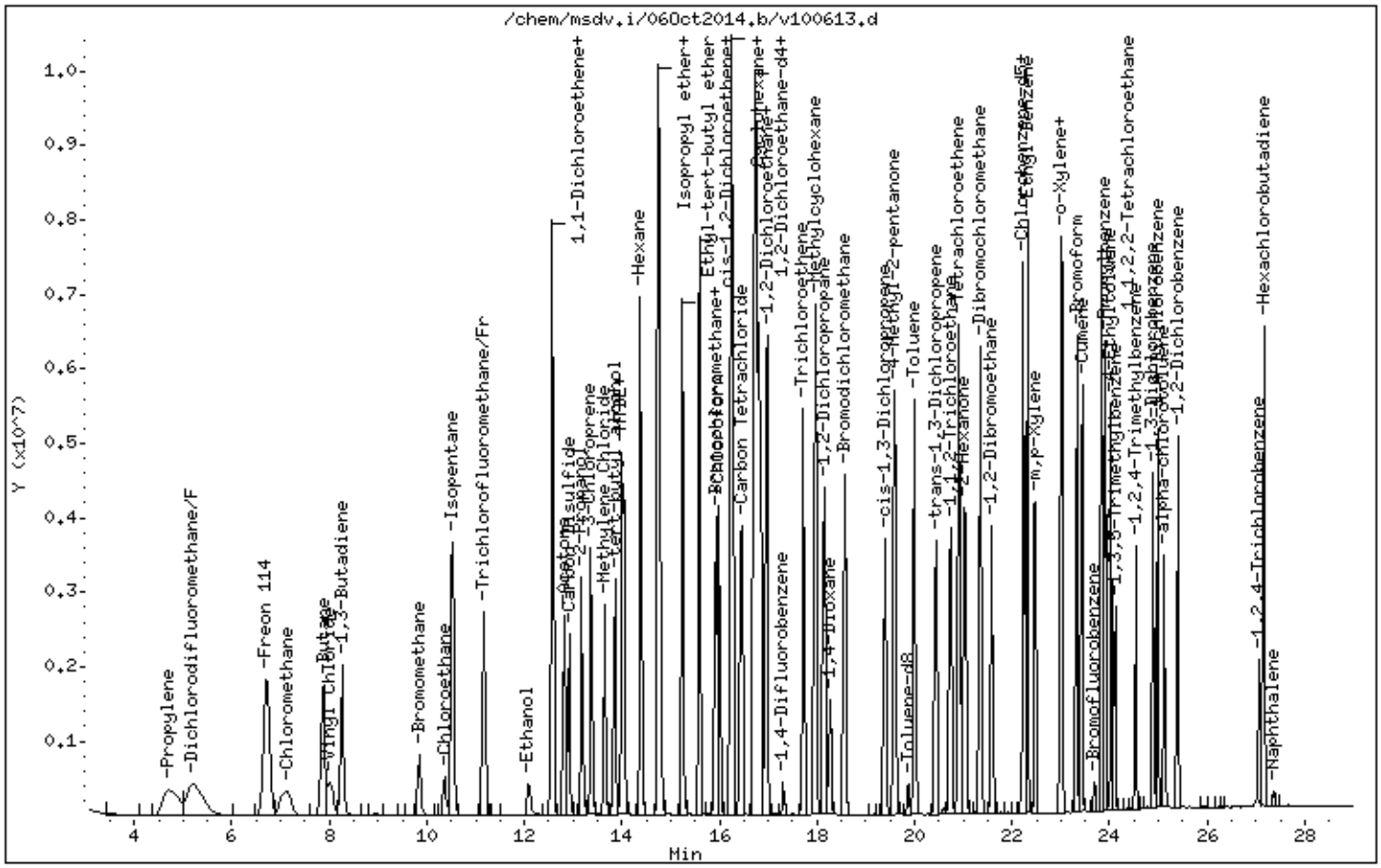
Instrument: msdv.i

Sample Info: 200mL #2677-212; ICAL; Level 12

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/03Nov2014.b/v110306.d
Lab Smp Id: ICAL Level 13
Inj Date : 03-NOV-2014 10:22
Operator : ef Inst ID: msdv.i
Smp Info : 100mL #2687-10
Misc Info : 2.0ppbv (5.0ppbv) AT1
Comment : Low Level GC-MS
Method : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Meth Date : 04-Nov-2014 09:18 efinn Quant Type: ISTD
Cal Date : 03-NOV-2014 10:22 Cal File: v110306.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.934 (1.000) | 130 | 93519 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.934 (1.000) | 128 | 76050 | | | 47.55- 107.55 | 81.32 |
| 15.933 | 15.934 (1.000) | 49 | 233285 | | | 213.64- 273.64 | 249.45 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 402219 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 66081 | | | 0.00- 46.17 | 16.43 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 326998 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 187482 | | | 28.56- 88.56 | 57.33 |
| 1 Freon134a | | | | | CAS #: 811-97-2 | | |
| 4.447 | 4.560 (0.279) | 83 | 35129 | 2.00000 | 1.836 | 70.00- 130.00 | 100.00 |
| 4.447 | 4.523 (0.279) | 69 | 33654 | | | 59.63- 119.63 | 95.80 |
| 2 Freon 152A | | | | | CAS #: 75-37-6 | | |
| 4.976 | 5.013 (0.312) | 65 | 23277 | 2.00000 | 2.003 | 70.00- 130.00 | 100.00 |
| 5.013 | 5.051 (0.315) | 51 | 68130 | | | 269.13- 329.13 | 292.69 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 5.731 | 5.769 (0.360) | 51 | 103272 | 2.00000 | 2.011 | 70.00- 130.00 | 100.00 |
| 5.731 | 5.769 (0.360) | 67 | 10301 | | | 0.00- 41.21 | 9.97 |
| 6.977 | 5.731 (0.438) | 85 | 11516 | | | 0.00- 37.03 | 11.15 |
| 14 Fr21 | | | | | CAS #: 75-43-4 | | |
| 11.280 | 11.280 (0.708) | 67 | 111807 | 2.00000 | 1.946 | 70.00- 130.00 | 100.00 |
| 11.280 | 11.280 (0.708) | 69 | 34219 | | | 0.60- 60.60 | 30.61 |
| 11.280 | 11.280 (0.708) | 47 | 17182 | | | 0.00- 45.43 | 15.37 |
| 205 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 23.111 | 23.111 (1.041) | 58 | 86079 | 2.00000 | 1.850 | 70.00- 130.00 | 100.00 |
| 23.111 | 23.084 (1.041) | 43 | 187255 | | | 195.73- 255.73 | 217.54 |
| 206 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 17.469 | 17.470 (1.010) | 56 | 99370 | 2.00000 | 2.300 | 70.00- 130.00 | 100.00 |
| 17.469 | 17.470 (1.010) | 41 | 95549 | | | 58.27- 118.27 | 96.15 |
| 17.469 | 17.470 (1.010) | 43 | 70661 | | | 36.87- 96.87 | 71.11 |
| 204 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 21.152 | 21.116 (1.222) | 56 | 52491 | 2.00000 | 2.182 | 70.00- 130.00 | 100.00 |
| 21.152 | 21.116 (1.222) | 73 | 12771 | | | 0.00- 58.66 | 24.33 |
| 21.116 | 21.116 (1.220) | 43 | 161363 | | | 284.26- 344.26 | 307.41 |
| 56 1,1-Dicholoropropene | | | | | CAS #: 563-58-6 | | |
| 16.457 | 16.458 (1.033) | 110 | 32223 | 2.00000 | 1.909 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.458 (1.033) | 75 | 88203 | | | 245.44- 305.44 | 273.73 |
| 91 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 22.343 | 22.343 (1.006) | 131 | 92732 | 2.00000 | 1.778 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 117 | 67007 | | | 40.91- 100.91 | 72.26 |
| 22.315 | 22.343 (1.005) | 95 | 36741 | | | 9.01- 69.01 | 39.62 |
| 105 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 23.910 | 23.910 (1.077) | 110 | 41081 | 2.00000 | 1.787 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 75 | 120264 | | | 254.96- 314.96 | 292.75 |
| 23.910 | 23.910 (1.077) | 61 | 42326 | | | 68.29- 128.29 | 103.03 |
| 97 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 23.884 | 23.884 (1.076) | 156 | 76878 | 2.00000 | 1.903 | 70.00- 130.00 | 100.00 |
| 23.884 | 23.884 (1.076) | 158 | 72297 | | | 68.03- 128.03 | 94.04 |
| 23.884 | 23.884 (1.076) | 77 | 153070 | | | 167.20- 227.20 | 199.11 |
| 107 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 24.065 | 24.065 (1.084) | 126 | 43961 | 2.00000 | 1.957 | 70.00- 130.00 | 100.00 |
| 24.065 | 24.065 (1.084) | 91 | 126447 | | | 259.67- 319.67 | 287.63 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  107 2-Chlorotoluene (continued)
 24.065  24.065 (1.084)    65     13350                     4.25-  64.25    30.37
-------------------------------------------------------------------------------
  109 4-Chlorotoluene                                CAS #: 106-43-4
 24.194  24.194 (1.090)   126     37445 2.00000    1.861  70.00- 130.00   100.00
 24.194  24.194 (1.090)    91    103571                  242.46- 302.46   276.60
 24.194  24.194 (1.090)    63     16706                   16.50-  76.50    44.61
-------------------------------------------------------------------------------
  115 tert-Butylbenzene                              CAS #: 98-06-6
 24.452  24.478 (1.101)   119    100448 2.00000    1.918  70.00- 130.00   100.00
 24.477  24.478 (1.102)   134     23966                    0.00-  54.58    23.86
 24.452  24.452 (1.101)    91     64981                   36.83-  96.83    64.69
-------------------------------------------------------------------------------
  119 sec-Butylbenzene                               CAS #: 135-98-8
 24.709  24.710 (1.113)   105    134344 2.00000    1.950  70.00- 130.00   100.00
 24.709  24.710 (1.113)   134     27719                    0.00-  51.05    20.63
 24.684  24.684 (1.112)    91     20634                    0.00-  46.24    15.36
-------------------------------------------------------------------------------
  116 p-Cymene                                       CAS #: 99-87-6
 24.835  24.835 (1.118)   119    122347 2.00000    1.843  70.00- 130.00   100.00
 24.835  24.835 (1.118)   134     33133                    0.00-  57.36    27.08
 24.835  24.835 (1.118)    91     28127                    0.00-  54.27    22.99
-------------------------------------------------------------------------------
  123 Butylbenzene                                   CAS #: 104-51-8
 25.261  25.261 (1.138)   134     38126 2.00000    1.811  70.00- 130.00   100.00
 25.261  25.261 (1.138)    91    135906                  327.67- 387.67   356.47
 25.261  25.261 (1.138)    92     75604                  160.08- 220.08   198.30
-------------------------------------------------------------------------------
  129 1,2-dibromo-3-chloropropane                    CAS #: 96-12-8
 26.203  26.203 (1.180)   157     55662 2.00000    1.923  70.00- 130.00   100.00
 26.203  26.203 (1.180)    75     54654                   63.21- 123.21    98.19
 26.203  26.203 (1.180)   155     44616                   49.09- 109.09    80.16
-------------------------------------------------------------------------------
   83 1,3-Dichloropropane                            CAS #: 142-28-9
 21.044  21.045 (1.216)    76    101143 2.00000    1.872  70.00- 130.00   100.00
 21.044  21.045 (1.216)    41    129655                   90.75- 150.75   128.19
 21.044  21.045 (1.216)    78     33480                    2.90-  62.90    33.10
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v110306.d
Lab Smp Id: ICAL Level 13
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/03Nov2014.b/v14l1006d.m
Misc Info: 2.0ppbv (5.0ppbv) AT1

Calibration Date: 03-NOV-2014
Calibration Time: 07:40

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 102660 | 61596 | 143724 | 93519 | -8.90 |
| 71 1,4-Difluorobenze | 414479 | 248687 | 580271 | 402219 | -2.96 |
| 92 Chlorobenzene-d5 | 344049 | 206429 | 481669 | 326998 | -4.96 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/03Nov2014.b/v110306.d



Date : 03-NOV-2014 10:22

Client ID:

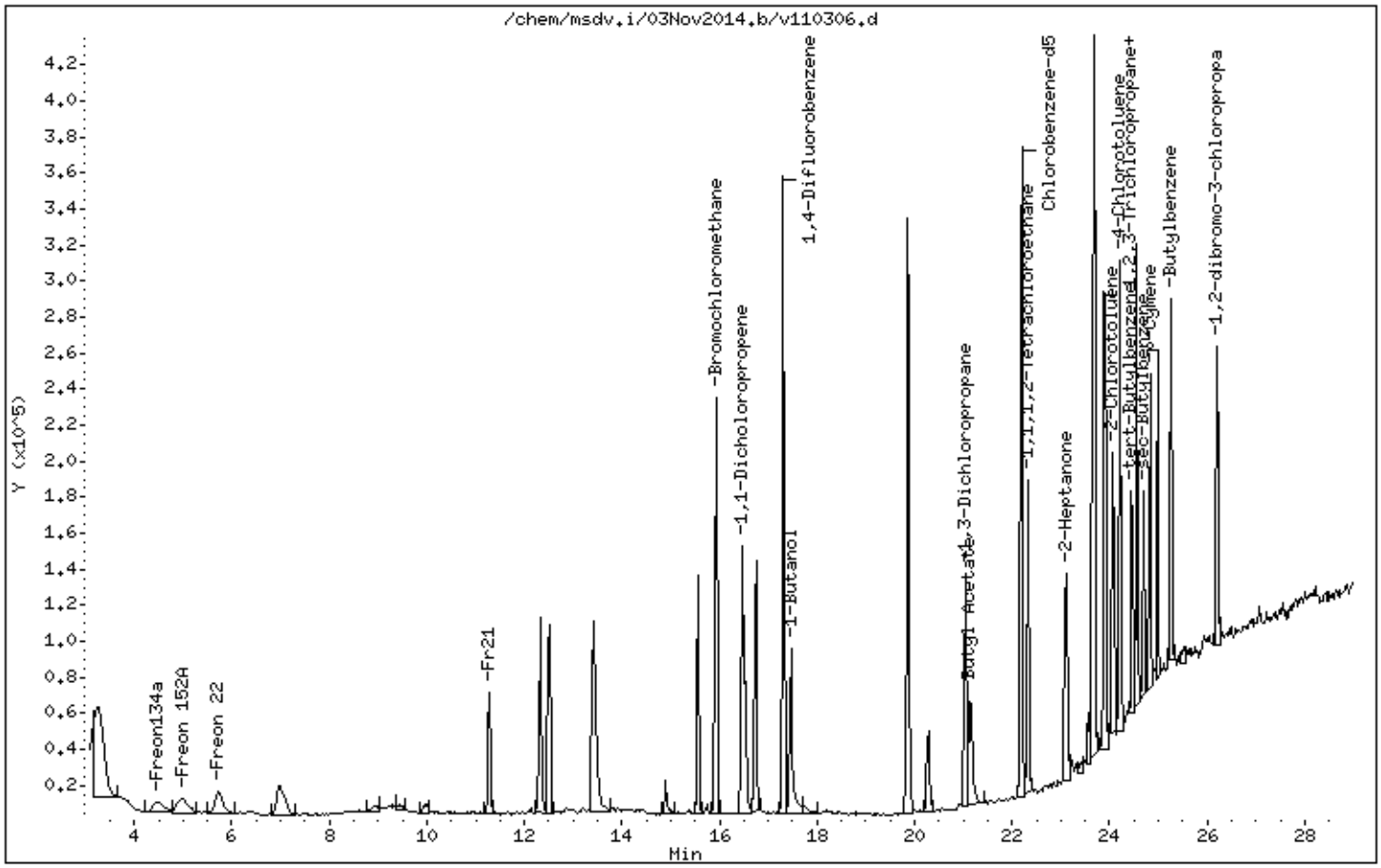
Instrument: msdv.i

Sample Info: 100mL #2687-10

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100711.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 07-OCT-2014 20:02
Operator : gd Inst ID: msdv.i
Smp Info : 100mL #2677-286
Misc Info : 2.0ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 22:27 gdelacru Quant Type: ISTD
Cal Date : 07-OCT-2014 20:02 Cal File: v100711.d
Als bottle: 5 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.934 (1.000) | 130 | 105770 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 84918 | | | 48.21- 108.21 | 80.29 |
| 15.934 | 15.934 (1.000) | 49 | 255426 | | | 215.61- 275.61 | 241.49 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 455611 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 75188 | | | 0.00- 46.17 | 16.50 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 349680 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 206898 | | | 29.34- 89.34 | 59.17 |
| 76 Octane | | | | | CAS #: 111-65-9 | | |
| 19.968 | 19.968 (1.154) | 57 | 79966 | 2.00000 | 2.016 | 80.00- 120.00 | 100.00 |
| 19.968 | 19.968 (1.154) | 85 | 60859 | | | 45.62- 105.62 | 76.11 |
| 19.968 | 19.968 (1.154) | 43 | 260353 | | | 293.94- 353.94 | 325.58 |
| 99 Decane | | | | | CAS #: 124-18-5 | | |
| 23.987 | 23.987 (1.080) | 57 | 198229 | 2.00000 | 1.848 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 99 Decane (continued) | | | | | | | |
| 23.987 | 23.987 (1.080) | 71 | 54295 | | | 0.00- 57.94 | 27.39 |
| 23.987 | 23.987 (1.080) | 142 | 6450 | | | 0.00- 33.26 | 3.25 |
| 117 Indene | | | | | CAS #: 95-13-6 | | |
| 25.485 | 25.485 (1.148) | 115 | 85208 | 2.00000 | 1.705 | 80.00- 120.00 | 100.00(T) |
| 25.485 | 25.485 (1.148) | 116 | 81441 | | | 67.11- 127.11 | 95.58 |
| 0.000 | 25.485 (0.000) | 0 | 0 | | | 0.00- 30.00 | 0.00 |
| 121 1,2,3-trimethylbenzene | | | | | CAS #: 526-73-8 | | |
| 24.992 | 24.992 (1.125) | 120 | 51971 | 2.00000 | 1.763 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 105 | 114266 | | | 192.71- 252.71 | 219.86 |
| 24.992 | 24.992 (1.125) | 77 | 15563 | | | 2.83- 62.83 | 29.95 |

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 08-Oct-2014 08:26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100711.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 105770 | -13.83 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 455611 | -8.61 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 349680 | -12.14 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/07Oct2014.b/v100711.d



Date : 07-OCT-2014 20:02

Client ID: Level 13

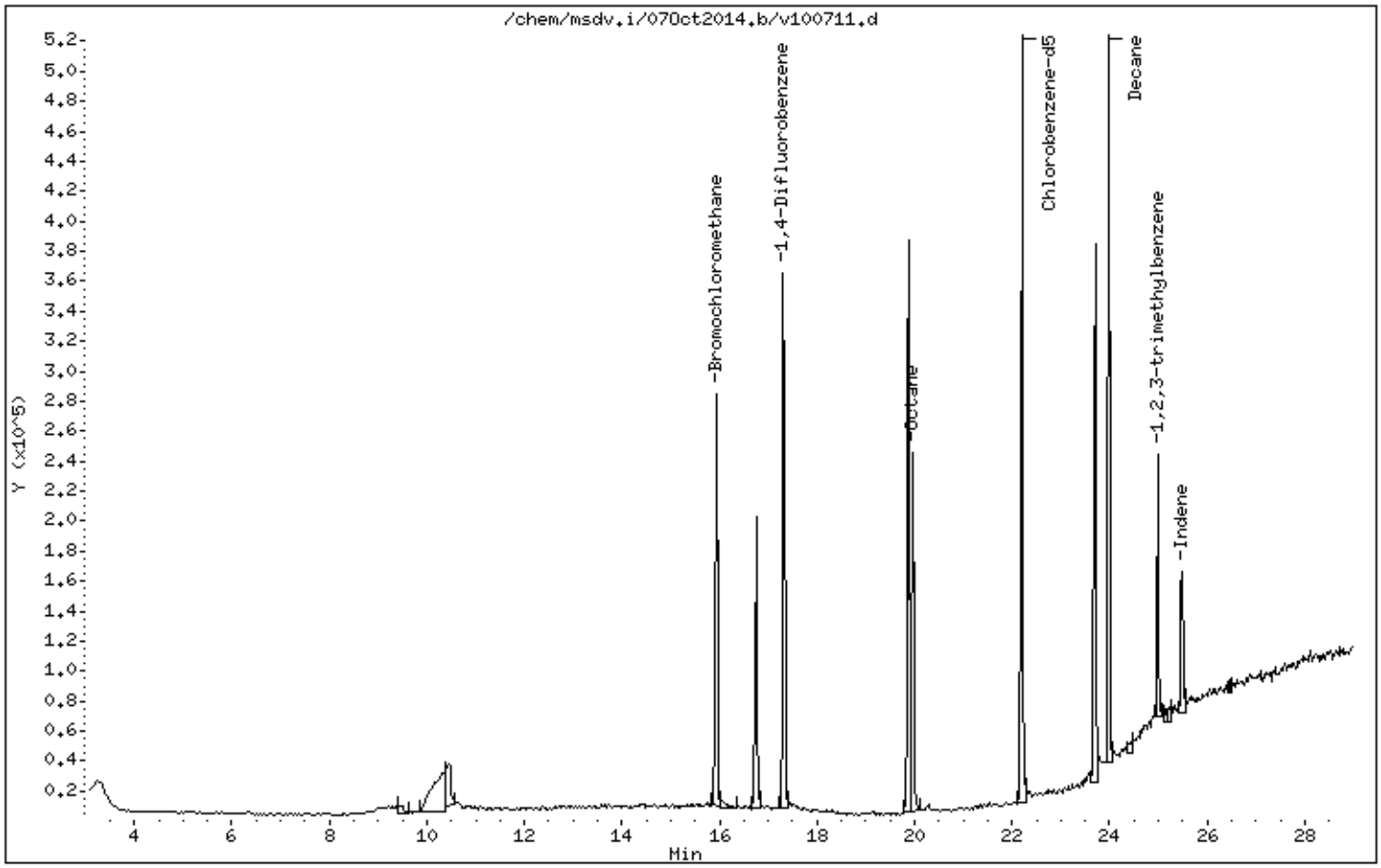
Instrument: msdv.i

Sample Info: 100mL #2677-286

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/06Oct2014.b/v100615.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 06-OCT-2014 22:22
Operator : gd Inst ID: msdv.i
Smp Info : 75mL #2677-212
Misc Info : 15ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/06Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 14:35 efinn Quant Type: ISTD
Cal Date : 06-OCT-2014 22:22 Cal File: v100615.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HiLoFULLcrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 129224 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 96491 | | | 47.54- 107.54 | 74.67 |
| 15.933 | 15.933 (1.000) | 49 | 306284 | | | 218.45- 278.45 | 237.02 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.304 | 17.304 (1.000) | 114 | 500457 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.304 | 17.304 (1.000) | 88 | 80790 | | | 0.00- 46.16 | 16.14 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 402672 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 238606 | | | 29.12- 89.12 | 59.26 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.755 | 16.755 (1.052) | 65 | 232365 | 5.00000 | 4.900 | 70.00- 130.00 | 100.00 |
| 16.755 | 16.755 (1.052) | 67 | 149774 | | | 28.37- 88.37 | 64.46 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.879 | 19.879 (1.149) | 98 | 478510 | 5.00000 | 4.973 | 70.00- 130.00 | 100.00 |
| 19.879 | 19.879 (1.149) | 70 | 58710 | | | 0.00- 41.90 | 12.27 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 80 Toluene-d8 (continued) | | | | | | | |
| 19.879 | 19.879 (1.149) | 100 | 311421 | | | 33.85- 93.85 | 65.08 |
| $ 106 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 23.703 | 23.703 (1.067) | 174 | 182638 | 5.00000 | 5.274 | 70.00- 130.00 | 100.00 |
| 23.678 | 23.678 (1.066) | 95 | 233040 | | | 99.95- 159.95 | 127.60 |
| 23.703 | 23.703 (1.067) | 176 | 174761 | | | 67.64- 127.64 | 95.69 |
| 3 Propylene | | | | | CAS #: 115-07-1 | | |
| 4.673 | 4.673 (0.293) | 41 | 978159 | 15.0000 | 13.492 | 70.00- 130.00 | 100.00 |
| 4.673 | 4.673 (0.293) | 42 | 636568 | | | 35.18- 95.18 | 65.08 |
| 4.673 | 4.673 (0.293) | 39 | 717953 | | | 44.12- 104.12 | 73.40 |
| 4 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 5.202 | 5.202 (0.326) | 85 | 1766252 | 15.0000 | 14.589 | 70.00- 130.00 | 100.00 |
| 5.202 | 5.202 (0.326) | 87 | 560113 | | | 1.90- 61.90 | 31.71 |
| 6 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 6.712 | 6.712 (0.421) | 135 | 1238864 | 15.0000 | 14.329 | 70.00- 130.00 | 100.00 |
| 6.712 | 6.712 (0.421) | 137 | 390492 | | | 0.53- 60.53 | 31.52 |
| 6.712 | 6.712 (0.421) | 85 | 1865347 | | | 121.37- 181.37 | 150.57 |
| 8 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 7.052 | 7.052 (0.443) | 50 | 990257 | 15.0000 | 13.573 | 70.00- 130.00 | 100.00 |
| 7.052 | 7.052 (0.443) | 52 | 304400 | | | 1.81- 61.81 | 30.74 |
| 9 Butane | | | | | CAS #: 106-97-8 | | |
| 7.884 | 7.884 (0.495) | 58 | 172643 | 15.0000 | 14.120 | 70.00- 130.00 | 100.00 |
| 7.884 | 7.884 (0.495) | 43 | 1903087 | | | 1065.18-1125.18 | 1102.33 |
| 10 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 8.008 | 8.008 (0.503) | 62 | 786398 | 15.0000 | 14.444 | 70.00- 130.00 | 100.00 |
| 8.008 | 8.008 (0.503) | 64 | 239926 | | | 0.00- 58.65 | 30.51 |
| 11 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 8.257 | 8.257 (0.518) | 54 | 760515 | 15.0000 | 14.249 | 70.00- 130.00 | 100.00 |
| 8.257 | 8.257 (0.518) | 39 | 1004799 | | | 107.15- 167.15 | 132.12 |
| 12 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 9.834 | 9.834 (0.617) | 94 | 526409 | 15.0000 | 15.772 | 70.00- 130.00 | 100.00 |
| 9.834 | 9.834 (0.617) | 96 | 486730 | | | 72.12- 132.12 | 92.46 |
| 17 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 10.364 | 10.364 (0.650) | 64 | 375180 | 15.0000 | 14.828 | 70.00- 130.00 | 100.00 |
| 10.364 | 10.364 (0.650) | 66 | 108181 | | | 0.00- 59.90 | 28.83 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 753329 | 15.0000 | 14.453 | 70.00- 130.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 1528652 | | | 171.32- 231.32 | 202.92 |
| 10.533 | 10.533 (0.661) | 42 | 1352405 | | | 150.03- 210.03 | 179.52 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.183 (0.702) | 101 | 1781625 | 15.0000 | 14.296 | 70.00- 130.00 | 100.00 |
| 11.183 | 11.183 (0.702) | 103 | 1157413 | | | 36.54- 96.54 | 64.96 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.074 | 12.074 (0.758) | 45 | 428174 | 15.0000 | 16.208 | 70.00- 130.00 | 100.00 |
| 12.101 | 12.101 (0.759) | 46 | 161587 | | | 8.51- 68.51 | 37.74 |
| 12.101 | 12.101 (0.759) | 43 | 84270 | | | 0.00- 54.10 | 19.68 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 403428 | 15.0000 | 14.486 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 1396671 | | | 320.65- 380.65 | 346.20 |
| 12.568 | 12.568 (0.789) | 96 | 636105 | | | 134.30- 194.30 | 157.67 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 1046687 | 15.0000 | 13.953 | 70.00- 130.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 670083 | | | 33.10- 93.10 | 64.02 |
| 12.568 | 12.568 (0.789) | 101 | 1317826 | | | 96.37- 156.37 | 125.90 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.815 | 12.815 (0.804) | 58 | 436343 | 15.0000 | 14.292 | 70.00- 130.00 | 100.00 |
| 12.815 | 12.815 (0.804) | 43 | 1943062 | | | 413.15- 473.15 | 445.31 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 1720902 | 15.0000 | 14.529 | 70.00- 130.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.365 | 13.365 (0.839) | 76 | 263352 | 15.0000 | 15.407 | 70.00- 130.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 1533546 | | | 547.03- 607.03 | 582.32 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 2133879 | 15.0000 | 15.093 | 70.00- 130.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 408271 | | | 0.00- 50.74 | 19.13 |
| 13.173 | 13.173 (0.827) | 59 | 60598 | | | 0.00- 32.83 | 2.84 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.639 | 13.639 (0.856) | 84 | 555681 | 15.0000 | 14.144 | 70.00- 130.00 | 100.00 |
| 13.639 | 13.639 (0.856) | 49 | 1356689 | | | 212.37- 272.37 | 244.15 |
| 13.639 | 13.639 (0.856) | 51 | 396980 | | | 43.31- 103.31 | 71.44 |
| 38 tert-butyl alcohol | | | | | CAS #: 75-65-0 | | |
| 13.859 | 13.859 (0.870) | 59 | 1861711 | 15.0000 | 15.025 | 70.00- 130.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   38 tert-butyl alcohol (continued)
 13.859  13.859 (0.870)    41    569759                     1.97-  61.97    30.60
 13.859  13.859 (0.870)    57    197515                     0.00-  40.67    10.61
-------------------------------------------------------------------------------
   39 MTBE                                          CAS #: 1634-04-4
 13.996  13.996 (0.878)    73   2054595 15.0000   14.577  70.00- 130.00   100.00
 13.996  13.996 (0.878)    57    666765                     2.99-  62.99    32.45
 13.996  13.996 (0.878)    41    869330                    12.12-  72.12    42.31
-------------------------------------------------------------------------------
   40 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.051  14.051 (0.882)    98    399403 15.0000   15.158  70.00- 130.00   100.00
 14.051  14.051 (0.882)    61   1212082                   293.73- 353.73   303.47
 14.051  14.051 (0.882)    96    627078                   146.88- 206.88   157.00
-------------------------------------------------------------------------------
   43 Hexane                                        CAS #: 110-54-3
 14.381  14.381 (0.903)    57   1597466 15.0000   14.164  70.00- 130.00   100.00
 14.381  14.381 (0.903)    43   1429208                    57.65- 117.65    89.47
 14.381  14.381 (0.903)    86    171619                     0.00-  40.67    10.74
-------------------------------------------------------------------------------
   45 Isopropyl ether                               CAS #: 108-20-3
 14.738  14.738 (0.925)    45   4330483 15.0000   14.780  70.00- 130.00   100.00
 14.738  14.738 (0.925)    87    564126                     0.00-  43.44    13.03
 14.738  14.738 (0.925)    59    358474                     0.00-  38.34     8.28
-------------------------------------------------------------------------------
   46 1,1-Dichloroethane                            CAS #: 75-34-3
 14.765  14.765 (0.927)    63   1574844 15.0000   14.389  70.00- 130.00   100.00
 14.765  14.765 (0.927)    65    473998                     0.37-  60.37    30.10
-------------------------------------------------------------------------------
   47 Vinyl Acetate                                 CAS #: 108-05-4
 14.793  14.793 (0.928)    86    174245 15.0000   15.597  70.00- 130.00   100.00
 14.793  14.793 (0.928)    42    485437                   220.92- 280.92   278.59
 14.793  14.793 (0.928)    43   5875429                  3282.47-3342.47  3371.94
-------------------------------------------------------------------------------
   49 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.240  15.240 (0.956)    59   2956441 15.0000   14.807  70.00- 130.00   100.00
 15.240  15.240 (0.956)    87    849987                     0.00-  58.71    28.75
 15.240  15.240 (0.956)    41    770520                     0.00-  56.39    26.06
-------------------------------------------------------------------------------
   50 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.592  15.592 (0.979)    98    523591 15.0000   14.974  70.00- 130.00   100.00
 15.592  15.592 (0.979)    61   1408398                   248.69- 308.69   268.99
 15.592  15.592 (0.979)    96    821286                   132.55- 192.55   156.86
-------------------------------------------------------------------------------
   51 2-Butanone                                    CAS #: 78-93-3
 15.592  15.592 (0.979)    72    355057 15.0000   15.624  70.00- 130.00   100.00
 15.571  15.571 (0.977)    43   2837580                   794.80- 854.80   799.19
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 51 2-Butanone (continued) | | | | | | | |
| 15.571 | 15.571 (0.977) | 57 | 162537 | | | 18.01- 78.01 | 45.78 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 1724096 | 15.0000 | 14.723 | 70.00- 130.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 330185 | | | 0.00- 49.03 | 19.15 |
| 15.933 | 15.933 (1.000) | 72 | 351864 | | | 0.00- 51.35 | 20.41 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 1558208 | 15.0000 | 14.309 | 70.00- 130.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 990335 | | | 33.33- 93.33 | 63.56 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.272 | 16.272 (1.021) | 84 | 982090 | 15.0000 | 14.339 | 70.00- 130.00 | 100.00 |
| 16.272 | 16.272 (1.021) | 56 | 1831989 | | | 157.43- 217.43 | 186.54 |
| 16.242 | 16.242 (1.019) | 41 | 1353170 | | | 105.99- 165.99 | 137.78 |
| 58 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 16.242 | 16.242 (1.019) | 97 | 1602177 | 15.0000 | 14.089 | 70.00- 130.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 99 | 1027719 | | | 32.16- 92.16 | 64.15 |
| 59 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.457 | 16.457 (1.033) | 119 | 1591076 | 15.0000 | 14.586 | 70.00- 130.00 | 100.00 |
| 16.457 | 16.457 (1.033) | 117 | 1614959 | | | 69.67- 129.67 | 101.50 |
| 63 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.728 | 16.728 (1.050) | 56 | 1710668 | 15.0000 | 14.332 | 70.00- 130.00 | 100.00 |
| 16.728 | 16.728 (1.050) | 57 | 4998331 | | | 258.69- 318.69 | 292.19 |
| 16.728 | 16.728 (1.050) | 41 | 1902087 | | | 79.91- 139.91 | 111.19 |
| 64 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.755 | 16.755 (0.968) | 78 | 2123759 | 15.0000 | 14.380 | 70.00- 130.00 | 100.00 |
| 16.755 | 16.755 (0.968) | 77 | 496312 | | | 0.00- 53.73 | 23.37 |
| 66 tert-amyl methyl ether | | | | | CAS #: 994-05-8 | | |
| 16.810 | 16.810 (0.971) | 87 | 503927 | 15.0000 | 15.069 | 70.00- 130.00 | 100.00 |
| 16.810 | 16.810 (0.971) | 73 | 2156328 | | | 399.95- 459.95 | 427.90 |
| 16.810 | 16.810 (0.971) | 55 | 841340 | | | 143.62- 203.62 | 166.96 |
| 68 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.865 | 16.865 (0.975) | 62 | 1321164 | 15.0000 | 14.761 | 70.00- 130.00 | 100.00 |
| 16.865 | 16.865 (0.975) | 64 | 397102 | | | 1.11- 61.11 | 30.06 |
| 69 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.975 | 16.975 (0.981) | 57 | 960905 | 15.0000 | 15.096 | 70.00- 130.00 | 100.00 |
| 16.975 | 16.975 (0.981) | 100 | 204898 | | | 0.00- 51.27 | 21.32 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 69 Heptane (continued) | | | | | | | |
| 16.975 | 16.975 (0.981) | 43 | 2502849 | | | 235.24- 295.24 | 260.47 |
| 72 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.716 | 17.716 (1.024) | 130 | 992742 | 15.0000 | 14.932 | 70.00- 130.00 | 100.00 |
| 17.716 | 17.716 (1.024) | 95 | 1005256 | | | 71.16- 131.16 | 101.26 |
| 17.716 | 17.716 (1.024) | 97 | 637478 | | | 33.04- 93.04 | 64.21 |
| 73 Methylcyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.963 | 17.963 (1.038) | 83 | 1332274 | 15.0000 | 15.260 | 70.00- 130.00 | 100.00 |
| 17.963 | 17.963 (1.038) | 98 | 597541 | | | 15.02- 75.02 | 44.85 |
| 17.963 | 17.963 (1.038) | 55 | 1636133 | | | 95.64- 155.64 | 122.81 |
| 74 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 18.156 | 18.156 (1.049) | 63 | 1007906 | 15.0000 | 14.877 | 70.00- 130.00 | 100.00 |
| 18.156 | 18.156 (1.049) | 62 | 743359 | | | 45.17- 105.17 | 73.75 |
| 18.156 | 18.156 (1.049) | 41 | 909177 | | | 59.65- 119.65 | 90.20 |
| 75 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 18.265 | 18.265 (1.056) | 88 | 528078 | 15.0000 | 15.510 | 70.00- 130.00 | 100.00 |
| 18.265 | 18.265 (1.056) | 58 | 521585 | | | 72.13- 132.13 | 98.77 |
| 18.265 | 18.265 (1.056) | 57 | 175070 | | | 4.41- 64.41 | 33.15 |
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 1711568 | 15.0000 | 15.260 | 70.00- 130.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 1082454 | | | 32.12- 92.12 | 63.24 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.408 | 19.408 (1.122) | 75 | 1184545 | 15.0000 | 15.453 | 70.00- 130.00 | 100.00 |
| 19.408 | 19.408 (1.122) | 77 | 374207 | | | 1.25- 61.25 | 31.59 |
| 19.408 | 19.408 (1.122) | 39 | 1183910 | | | 71.17- 131.17 | 99.95 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 3372329 | 15.0000 | 16.177 | 70.00- 130.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 905896 | | | 0.00- 57.24 | 26.86 |
| 19.587 | 19.587 (1.132) | 85 | 282709 | | | 0.00- 38.20 | 8.38 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 2429809 | 15.0000 | 14.905 | 70.00- 130.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 1400038 | | | 28.60- 88.60 | 57.62 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.434 | 20.434 (0.920) | 75 | 1266667 | 15.0000 | 15.261 | 70.00- 130.00 | 100.00 |
| 20.434 | 20.434 (0.920) | 77 | 397684 | | | 5.48- 65.48 | 31.40 |
| 20.434 | 20.434 (0.920) | 39 | 1196852 | | | 63.15- 123.15 | 94.49 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   84 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.757  20.757 (0.935)    97    932066 15.0000   14.705  70.00- 130.00   100.00
 20.757  20.757 (0.935)    99    581018                   32.13-  92.13    62.34
 20.757  20.757 (0.935)    83    826302                   57.82- 117.82    88.65
-------------------------------------------------------------------------------
   86 Tetrachloroethene                            CAS #: 127-18-4
 20.901  20.901 (0.941)   166   1200884 15.0000   14.654  70.00- 130.00   100.00
 20.901  20.901 (0.941)   129    952536                   47.04- 107.04    79.32
 20.901  20.901 (0.941)   131    928594                   46.95- 106.95    77.33
-------------------------------------------------------------------------------
   87 2-Hexanone                                   CAS #: 591-78-6
 21.044  21.044 (0.948)    58   1104217 15.0000   15.557  70.00- 130.00   100.00
 21.044  21.044 (0.948)    43   2979241                  242.48- 302.48   269.81
 21.044  21.044 (0.948)   100    155542                    0.00-  43.88    14.09
-------------------------------------------------------------------------------
   89 Dibromochloromethane                         CAS #: 124-48-1
 21.367  21.367 (0.962)   129   1776857 15.0000   15.062  70.00- 130.00   100.00
 21.367  21.367 (0.962)   127   1377909                   50.38- 110.38    77.55
-------------------------------------------------------------------------------
   90 1,2-Dibromoethane                            CAS #: 106-93-4
 21.582  21.582 (0.972)   107   1491178 15.0000   15.102  70.00- 130.00   100.00
 21.582  21.582 (0.972)   109   1375529                   62.69- 122.69    92.24
-------------------------------------------------------------------------------
   93 Chlorobenzene                                CAS #: 108-90-7
 22.233  22.233 (1.001)   112   1945272 15.0000   14.711  70.00- 130.00   100.00
 22.233  22.233 (1.001)   114    620447                    1.62-  61.62    31.90
 22.233  22.233 (1.001)    77   1178663                   38.66-  98.66    60.59
-------------------------------------------------------------------------------
   95 Ethyl Benzene                                CAS #: 100-41-4
 22.315  22.315 (1.005)   106    914144 15.0000   15.402  70.00- 130.00   100.00
 22.315  22.315 (1.005)    91   2842219                  292.36- 352.36   310.92
-------------------------------------------------------------------------------
   96 m,p-Xylene                                   CAS #: 108-38-3
 22.480  22.480 (1.012)   106    889680 15.0000   15.202  70.00- 130.00   100.00
 22.480  22.480 (1.012)    91   1740179                  164.15- 224.15   195.60
-------------------------------------------------------------------------------
  100 o-Xylene                                     CAS #: 95-47-6
 23.001  23.001 (1.036)   106    852589 15.0000   15.656  70.00- 130.00   100.00
 23.001  23.001 (1.036)    91   1824346                  186.63- 246.63   213.98
-------------------------------------------------------------------------------
  101 Styrene                                      CAS #: 100-42-5
 23.029  23.029 (1.037)   104   1266246 15.0000   15.893  70.00- 130.00   100.00
 23.029  23.029 (1.037)    78    686267                   28.70-  88.70    54.20
-------------------------------------------------------------------------------
  102 Bromoform                                    CAS #: 75-25-2
 23.331  23.331 (1.051)   173   1549333 15.0000   15.495  70.00- 130.00   100.00
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Bromoform (continued) | | | | | | | |
| 23.331 | 23.331 (1.051) | 171 | 801362 | | | 20.40- 80.40 | 51.72 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 2467874 | 15.0000 | 15.518 | 70.00- 130.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 685627 | | | 0.00- 57.73 | 27.78 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.832 | 23.832 (1.073) | 83 | 1760413 | 15.0000 | 14.410 | 70.00- 130.00 | 100.00 |
| 23.832 | 23.832 (1.073) | 85 | 1116892 | | | 34.81- 94.81 | 63.44 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 2158977 | 15.0000 | 15.305 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 512479 | | | 0.00- 53.83 | 23.74 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 1549867 | 15.0000 | 14.977 | 70.00- 130.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 478452 | | | 0.18- 60.18 | 30.87 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 1350206 | 15.0000 | 15.626 | 70.00- 130.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 647624 | | | 20.44- 80.44 | 47.96 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 1001006 | 15.0000 | 14.304 | 70.00- 130.00 | 100.00 |
| 24.529 | 24.529 (1.105) | 120 | 471668 | | | 19.27- 79.27 | 47.12 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 1035215 | 15.0000 | 15.331 | 70.00- 130.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 653684 | | | 38.48- 98.48 | 63.14 |
| 24.902 | 24.902 (1.121) | 111 | 415871 | | | 10.49- 70.49 | 40.17 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 924782 | 15.0000 | 14.568 | 70.00- 130.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 578764 | | | 38.92- 98.92 | 62.58 |
| 24.992 | 24.992 (1.125) | 111 | 361466 | | | 11.61- 71.61 | 39.09 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.126 | 25.126 (1.132) | 91 | 1072819 | 15.0000 | 15.818 | 70.00- 130.00 | 100.00 |
| 25.126 | 25.126 (1.132) | 126 | 227370 | | | 0.00- 52.82 | 21.19 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.395 (1.144) | 146 | 946253 | 15.0000 | 15.103 | 70.00- 130.00 | 100.00 |
| 25.395 | 25.395 (1.144) | 148 | 602151 | | | 36.09- 96.09 | 63.64 |
| 25.395 | 25.395 (1.144) | 111 | 397509 | | | 13.38- 73.38 | 42.01 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 577146 | 15.0000 | 12.553 | 70.00- 130.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 550450 | | | 64.14- 124.14 | 95.37 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 (1.223) | 225 | 520045 | 15.0000 | 13.524 | 70.00- 130.00 | 100.00 |
| 27.166 | 27.166 (1.223) | 223 | 331143 | | | 44.27- 104.27 | 63.68 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.368 | 27.368 (1.232) | 128 | 153589 | 1.50000 | 1.410 | 70.00- 130.00 | 100.00 |
| 27.368 | 27.368 (1.232) | 127 | 20220 | | | 0.00- 47.41 | 13.17 |

Report Date: 07-Oct-2014 14:35

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100615.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/06Oct2014.b/v14l1006a.m
Misc Info: 15ppbv (50ppbv)

Calibration Date: 06-OCT-2014
Calibration Time: 18:36
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 125097 | 75058 | 175136 | 129224 | 3.30 |
| 71 1,4-Difluorobenze | 498199 | 298919 | 697479 | 500457 | 0.45 |
| 92 Chlorobenzene-d5 | 406420 | 243852 | 568988 | 402672 | -0.92 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/06Oct2014.b/v100615.d



Date : 06-OCT-2014 22:22

Client ID: Level 15

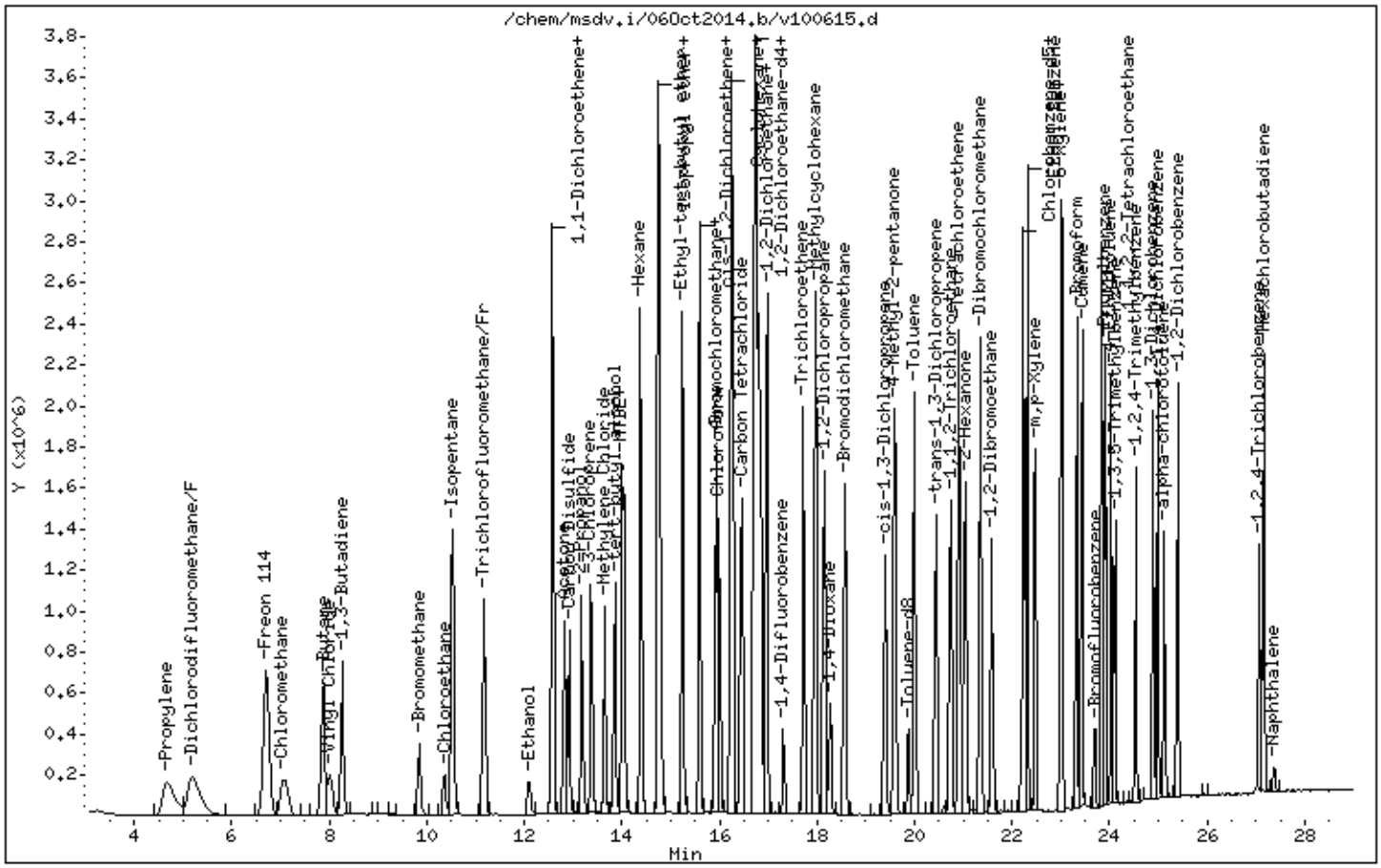
Instrument: msdv.i

Sample Info: 75mL #2677-212

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/03Nov2014.b/v110307.d
Lab Smp Id: ICAL Level 16
Inj Date : 03-NOV-2014 11:17
Operator : ef Inst ID: msdv.i
Smp Info : 200mL #2687-10
Misc Info : 4.0ppbv (5.0ppbv) AT1
Comment : Low Level GC-MS
Method : /chem/msdv.i/03Nov2014.b/v14l1006d.m
Meth Date : 04-Nov-2014 09:18 efinn Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.934 | 15.934 (1.000) | 130 | 95111 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 15.934 | 15.934 (1.000) | 128 | 73249 | | | 47.55- 107.55 | 77.01 |
| 15.934 | 15.934 (1.000) | 49 | 238130 | | | 213.64- 273.64 | 250.37 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 403976 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 67401 | | | 0.00- 46.17 | 16.68 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 324355 | 5.00000 | | 70.00- 130.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 188810 | | | 28.56- 88.56 | 58.21 |
| 1 Freon134a | | | | | CAS #: 811-97-2 | | |
| 4.560 | 4.560 (0.286) | 83 | 68072 | 4.00000 | 3.588 | 70.00- 130.00 | 100.00 |
| 4.523 | 4.523 (0.284) | 69 | 66123 | | | 59.63- 119.63 | 97.14 |
| 2 Freon 152A | | | | | CAS #: 75-37-6 | | |
| 5.013 | 5.013 (0.315) | 65 | 42911 | 4.00000 | 3.699 | 70.00- 130.00 | 100.00 |
| 5.051 | 5.051 (0.317) | 51 | 127341 | | | 269.13- 329.13 | 296.76 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 5.769 | 5.769 (0.362) | 51 | 197316 | 4.00000 | 3.778 | 70.00- 130.00 | 100.00 |
| 5.769 | 5.769 (0.362) | 67 | 21090 | | | 0.00- 41.21 | 10.69 |
| 5.731 | 5.731 (0.360) | 85 | 351 | | | 0.00- 37.03 | 0.18 |
| 14 Fr21 | | | | | CAS #: 75-43-4 | | |
| 11.280 | 11.280 (0.708) | 67 | 216837 | 4.00000 | 3.766 | 70.00- 130.00 | 100.00 |
| 11.280 | 11.280 (0.708) | 69 | 67069 | | | 0.60- 60.60 | 30.93 |
| 11.280 | 11.280 (0.708) | 47 | 33363 | | | 0.00- 45.43 | 15.39 |
| 205 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 23.111 | 23.111 (1.041) | 58 | 182487 | 4.00000 | 3.963 | 70.00- 130.00 | 100.00 |
| 23.084 | 23.084 (1.040) | 43 | 397919 | | | 195.73- 255.73 | 218.05 |
| 206 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 17.470 | 17.470 (1.010) | 56 | 217209 | 4.00000 | 4.766 | 70.00- 130.00 | 100.00 |
| 17.470 | 17.470 (1.010) | 41 | 208178 | | | 58.27- 118.27 | 95.84 |
| 17.470 | 17.470 (1.010) | 43 | 162027 | | | 36.87- 96.87 | 74.59 |
| 204 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 21.116 | 21.116 (1.220) | 56 | 102276 | 4.00000 | 4.185 | 70.00- 130.00 | 100.00 |
| 21.116 | 21.116 (1.220) | 73 | 24490 | | | 0.00- 58.66 | 23.95 |
| 21.116 | 21.116 (1.220) | 43 | 330750 | | | 284.26- 344.26 | 323.39 |
| 56 1,1-Dicholoropropene | | | | | CAS #: 563-58-6 | | |
| 16.458 | 16.458 (1.033) | 110 | 66080 | 4.00000 | 3.879 | 70.00- 130.00 | 100.00 |
| 16.458 | 16.458 (1.033) | 75 | 175656 | | | 245.44- 305.44 | 265.82 |
| 91 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 22.343 | 22.343 (1.006) | 131 | 182270 | 4.00000 | 3.609 | 70.00- 130.00 | 100.00 |
| 22.343 | 22.343 (1.006) | 117 | 127743 | | | 40.91- 100.91 | 70.08 |
| 22.343 | 22.343 (1.006) | 95 | 71725 | | | 9.01- 69.01 | 39.35 |
| 105 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 23.910 | 23.910 (1.077) | 110 | 81201 | 4.00000 | 3.641 | 70.00- 130.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 75 | 240235 | | | 254.96- 314.96 | 295.85 |
| 23.910 | 23.910 (1.077) | 61 | 78516 | | | 68.29- 128.29 | 96.69 |
| 97 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 23.884 | 23.884 (1.076) | 156 | 152902 | 4.00000 | 3.852 | 70.00- 130.00 | 100.00 |
| 23.884 | 23.884 (1.076) | 158 | 145907 | | | 68.03- 128.03 | 95.43 |
| 23.884 | 23.884 (1.076) | 77 | 299663 | | | 167.20- 227.20 | 195.98 |
| 107 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 24.065 | 24.065 (1.084) | 126 | 85444 | 4.00000 | 3.867 | 70.00- 130.00 | 100.00 |
| 24.065 | 24.065 (1.084) | 91 | 240566 | | | 259.67- 319.67 | 281.55 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 107 2-Chlorotoluene (continued) | | | | | | | |
| 24.065 | 24.065 (1.084) | 65 | 27231 | | | 4.25- 64.25 | 31.87 |
| 109 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 24.194 | 24.194 (1.090) | 126 | 71963 | 4.00000 | 3.679 | 70.00- 130.00 | 100.00 |
| 24.194 | 24.194 (1.090) | 91 | 202966 | | | 242.46- 302.46 | 282.04 |
| 24.194 | 24.194 (1.090) | 63 | 33341 | | | 16.50- 76.50 | 46.33 |
| 115 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 24.478 | 24.478 (1.102) | 119 | 192115 | 4.00000 | 3.755 | 70.00- 130.00 | 100.00 |
| 24.478 | 24.478 (1.102) | 134 | 47966 | | | 0.00- 54.58 | 24.97 |
| 24.452 | 24.452 (1.101) | 91 | 126013 | | | 36.83- 96.83 | 65.59 |
| 119 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 24.710 | 24.710 (1.113) | 105 | 258534 | 4.00000 | 3.824 | 70.00- 130.00 | 100.00 |
| 24.710 | 24.710 (1.113) | 134 | 54572 | | | 0.00- 51.05 | 21.11 |
| 24.684 | 24.684 (1.112) | 91 | 41026 | | | 0.00- 46.24 | 15.87 |
| 116 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 24.835 | 24.835 (1.118) | 119 | 225151 | 4.00000 | 3.521 | 70.00- 130.00 | 100.00 |
| 24.835 | 24.835 (1.118) | 134 | 59682 | | | 0.00- 57.36 | 26.51 |
| 24.835 | 24.835 (1.118) | 91 | 54583 | | | 0.00- 54.27 | 24.24 |
| 123 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 25.261 | 25.261 (1.138) | 134 | 63471 | 4.00000 | 3.193 | 70.00- 130.00 | 100.00 |
| 25.261 | 25.261 (1.138) | 91 | 236785 | | | 327.67- 387.67 | 373.06 |
| 25.261 | 25.261 (1.138) | 92 | 126304 | | | 160.08- 220.08 | 198.99 |
| 129 1,2-dibromo-3-chloropropane | | | | | CAS #: 96-12-8 | | |
| 26.203 | 26.203 (1.180) | 157 | 108883 | 4.00000 | 3.833 | 70.00- 130.00 | 100.00 |
| 26.203 | 26.203 (1.180) | 75 | 105540 | | | 63.21- 123.21 | 96.93 |
| 26.203 | 26.203 (1.180) | 155 | 85205 | | | 49.09- 109.09 | 78.25 |
| 83 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 21.045 | 21.045 (1.216) | 76 | 207009 | 4.00000 | 3.815 | 70.00- 130.00 | 100.00 |
| 21.045 | 21.045 (1.216) | 41 | 260295 | | | 90.75- 150.75 | 125.74 |
| 21.045 | 21.045 (1.216) | 78 | 68442 | | | 2.90- 62.90 | 33.06 |

Report Date: 04-Nov-2014 09:18

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v110307.d
Lab Smp Id: ICAL Level 16
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/03Nov2014.b/v14l1006d.m
Misc Info: 4.0ppbv (5.0ppbv) AT1

Calibration Date: 03-NOV-2014
Calibration Time: 07:40

Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 102660 | 61596 | 143724 | 95111 | -7.35 |
| 71 1,4-Difluorobenze | 414479 | 248687 | 580271 | 403976 | -2.53 |
| 92 Chlorobenzene-d5 | 344049 | 206429 | 481669 | 324355 | -5.72 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/03Nov2014.b/v110307.d



Date : 03-NOV-2014 11:17

Client ID:

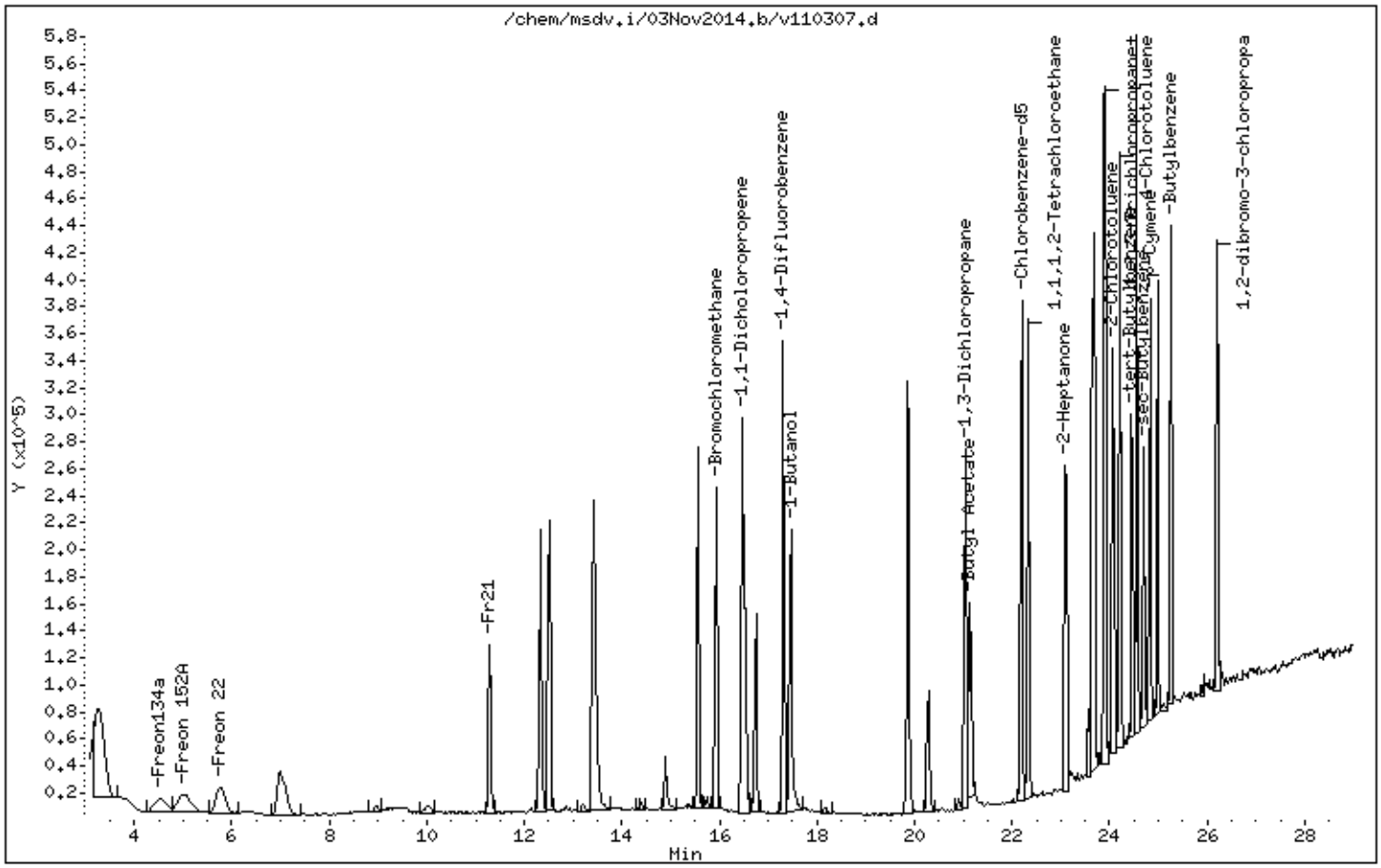
Instrument: msdv.i

Sample Info: 200mL #2687-10

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/07Oct2014.b/v100712.d
Lab Smp Id: ICAL Client Smp ID: Level 16
Inj Date : 07-OCT-2014 20:41
Operator : gd Inst ID: msdv.i
Smp Info : 200mL #2677-286
Misc Info : 4.0ppbv (5.0ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/07Oct2014.b/v14l1006a.m
Meth Date : 07-Oct-2014 22:27 gdelacru Quant Type: ISTD
Cal Date : 07-OCT-2014 20:41 Cal File: v100712.d
Als bottle: 6 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT7crv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.934 (1.000) | 130 | 108245 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.934 (1.000) | 128 | 84933 | | | 48.21- 108.21 | 78.46 |
| 15.933 | 15.934 (1.000) | 49 | 264935 | | | 215.61- 275.61 | 244.75 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 479675 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 74710 | | | 0.00- 46.17 | 15.58 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 335423 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 198497 | | | 29.34- 89.34 | 59.18 |
| 76 Octane | | | | | CAS #: 111-65-9 | | |
| 19.968 | 19.968 (1.154) | 57 | 141317 | 4.00000 | 3.519 | 80.00- 120.00 | 100.00 |
| 19.968 | 19.968 (1.154) | 85 | 107524 | | | 45.62- 105.62 | 76.09 |
| 19.968 | 19.968 (1.154) | 43 | 467484 | | | 293.94- 353.94 | 330.81 |
| 99 Decane | | | | | CAS #: 124-18-5 | | |
| 23.987 | 23.987 (1.080) | 57 | 316143 | 4.00000 | 3.262 | 80.00- 120.00 | 100.00 |

| RT | EXP RT | (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 99 Decane (continued) | | | | | | | | |
| 23.987 | 23.987 | (1.080) | 71 | 89106 | | | 0.00- 57.94 | 28.19 |
| 23.987 | 23.987 | (1.080) | 142 | 11186 | | | 0.00- 33.26 | 3.54 |
| 117 Indene | | | | | | CAS #: 95-13-6 | | |
| 25.485 | 25.485 | (1.148) | 115 | 136266 | 4.00000 | 3.065 | 80.00- 120.00 | 100.00(T) |
| 25.485 | 25.485 | (1.148) | 116 | 135705 | | | 67.11- 127.11 | 99.59 |
| 0.000 | 25.485 | (0.000) | 0 | 0 | | | 0.00- 30.00 | 0.00 |
| 121 1,2,3-trimethylbenzene | | | | | | CAS #: 526-73-8 | | |
| 24.992 | 24.992 | (1.125) | 120 | 76020 | 4.00000 | 2.928 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 | (1.125) | 105 | 172915 | | | 192.71- 252.71 | 227.46 |
| 24.992 | 24.992 | (1.125) | 77 | 23322 | | | 2.83- 62.83 | 30.68 |

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 08-Oct-2014 08:27

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100712.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdv.i/07Oct2014.b/v14l1006a.m
Misc Info: 4.0ppbv (5.0ppbv)

Calibration Date: 07-OCT-2014
Calibration Time: 12:28
Client Smp ID: Level 16
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 122750 | 73650 | 171850 | 108245 | -11.82 |
| 71 1,4-Difluorobenze | 498533 | 299120 | 697946 | 479675 | -3.78 |
| 92 Chlorobenzene-d5 | 397978 | 238787 | 557169 | 335423 | -15.72 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/07Oct2014.b/v100712.d



Date : 07-OCT-2014 20:41

Client ID: Level 16

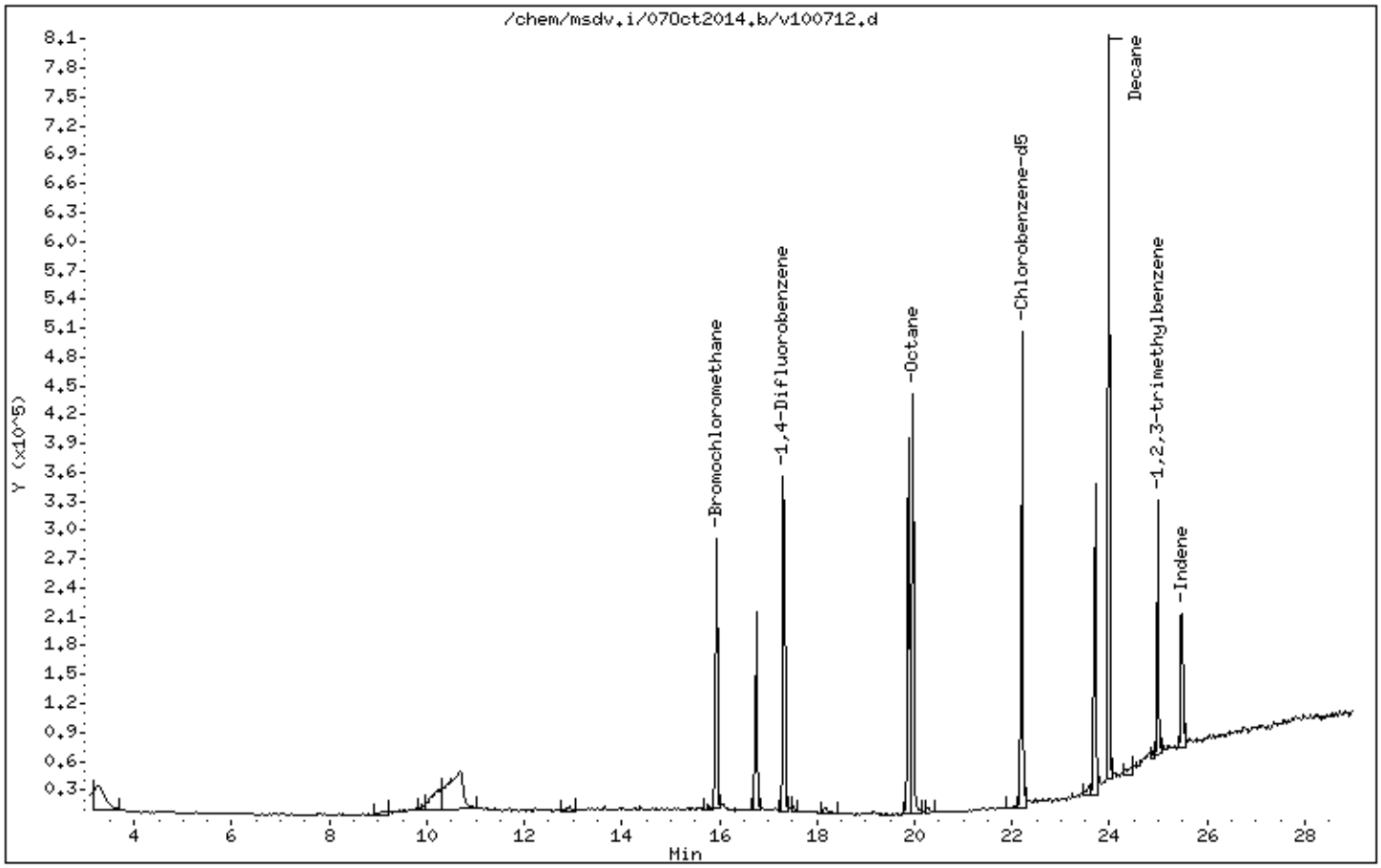
Instrument: msdv.i

Sample Info: 200mL #2677-286

Operator: gd

Column phase: RTx-624

Column diameter: 0.32



TO-15 Low level MDL

~~0.5p~~ 2/20/14 0.1ppbv RLs Page 1

0.1ppbv (1.0ppbv); load amount: 25mL # 2612-

MDL Verification: 0.09ppbv (~~50~~ 1.0 ppbv) 2/20/14

load amount: ~~25~~ 22.5 mL 2/20/14 # 2612-300

V021906

Report Date : 18-Feb-2014 11:23

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

| ID: | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 |
|---|---|---|---|---|---|---|---|---|
| FILENAME: | v021408 | v021409 | v021410 | v021411 | v021412 | v021413 | v021414 | v021415 |
| INJ.DATE: | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 | 14-FEB-2014 |
| INJ.TIME: | 16:18 | 17:11 | 18:00 | 18:36 | 19:12 | 20:04 | 20:40 | 21:17 |

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | RL(ppbv) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Freon134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 2 Freon 152A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 3 Propylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 4 Dichlorodifluoromethan | 139.62 | 127.29 | 128.28 | 107.44 | 144.97 | 126.38 | 118.82 | 140.28 | 129.13 | 12.39 | 37.13 | 100/50 |
| 5 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 6 Freon 114 | 118.74 | 110.46 | 110.77 | 100.52 | 113.37 | 114.01 | 112.48 | 114.66 | 111.88 | 5.27 | 15.79 | 100/50 |
| 7 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 8 Chloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 9 Butane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 10 Vinyl Chloride | 126.27 | 115.23 | 123.80 | 117.46 | 109.60 | 114.19 | 110.12 | 95.96 | 114.08 | 9.41 | 28.22 | 100 |
| 11 1,3-Butadiene | 111.49 | 124.46 | 119.98 | 135.39 | 116.70 | 126.42 | 136.43 | 111.51 | 122.80 | 9.72 | 29.13 | 100 |
| 12 Bromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 13 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 14 Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 15 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 16 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Reviewer 1 _____ Date: 2/24/14
Reviewer 2 _____ Date: 2/24/14

$\bar{X}$ = 31.04 pptv = 0.031 ppbv

$2\bar{x}$ = 0.06 ppbv

$3\bar{x}$ = 0.09 ppbv

$4\bar{x}$ = 0.12 ppbv

Special 0.05ppbv RL Not met for:
- 1,2,4-Trichlorobenzene
- Hexachlorobutadiene

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

RL (PPBV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 18 Isopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 19 Diethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 20 Trichlorofluoromethane | 116.29 | 98.86 | 97.20 | 101.43 | 124.45 | 111.17 | 112.38 | 104.32 | 108.26 | 9.45 | 28.33 | 100/50 |
| 21 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 22 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 23 Methyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 24 Ethanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 25 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 26 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 27 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 28 Freon 113 | 108.54 | 102.59 | 100.86 | 96.66 | 108.02 | 105.11 | 96.68 | 116.78 | 104.41 | 6.76 | 20.25 | 100/50 |
| 29 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 30 1,1-Dichloroethene | 98.66 | 132.14 | 111.64 | 91.33 | 107.05 | 99.16 | 101.33 | 117.33 | 107.33 | 12.92 | 38.73 | 100 |
| 31 Acetone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 32 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 33 Carbon Disulfide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 34 2-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 35 3-Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 36 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 37 Methylene Chloride | 135.54 | 118.29 | 109.51 | 104.95 | 134.15 | 111.90 | 127.39 | 118.80 | 120.07 | 11.36 | 34.05 | 200 |
| 38 tert-butyl alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

RL(PPbV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 MTBE | 92.09 | 106.06 | 104.16 | 107.83 | 121.71 | 94.15 | 120.45 | 134.02 | 110.06 | 14.39 | 43.14 | 100 |
| 40 trans-1,2-Dichloroethe | 121.50 | 109.49 | 120.15 | 102.96 | 95.61 | 116.25 | 112.26 | 116.11 | 111.79 | 8.85 | 26.52 | 100 |
| 41 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 42 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 43 Hexane | 96.33 | 118.80 | 109.77 | 120.92 | 104.58 | 87.04 | 98.32 | 109.79 | 105.69 | 11.51 | 34.52 | 100 |
| 44 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 45 Isopropyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 46 1,1-Dichloroethane | 107.24 | 94.84 | 98.17 | 89.01 | 108.74 | 106.63 | 117.18 | 97.30 | 102.39 | 9.10 | 27.30 | 100 |
| 47 Vinyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 48 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 49 Ethyl-tert-butyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 50 cis-1,2-Dichloroethene | 113.41 | 91.05 | 102.51 | 106.31 | 80.51 | 128.34 | 101.60 | 74.61 | 99.79 | 17.47 | 52.37 | 100 |
| 51 2-Butanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 52 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 53 Tetrahydrofuran | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| * 54 Bromochloromethane | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 | |
| 55 Chloroform | 113.74 | 106.45 | 106.77 | 116.70 | 111.38 | 112.55 | 125.73 | 107.42 | 112.59 | 6.44 | 19.32 | 100 |
| 56 1,1-Dicholoropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 57 Cyclohexane | 94.99 | 78.53 | 108.12 | 85.62 | 102.03 | 84.99 | 102.46 | 109.33 | 95.76 | 11.57 | 34.69 | 100 |
| 58 1,1,1-Trichloroethane | 85.70 | 86.21 | 98.23 | 126.78 | 109.96 | 92.85 | 101.07 | 102.84 | 100.46 | 13.48 | 40.43 | 100/50 |
| 59 Carbon Tetrachloride | 104.74 | 97.03 | 84.42 | 76.55 | 70.88 | 79.62 | 89.94 | 90.50 | 86.71 | 11.12 | 33.33 | 100/50 |
| 60 Ethyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 61 2-Chloroethyl Vinyl Et | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 62 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

RL(pptv)

| | Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 63 2,2,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 212411483 |
| | 64 Benzene | 102.27 | 118.30 | 115.44 | 112.04 | 111.89 | 122.33 | 102.03 | 89.29 | 109.20 | 10.73 | 32.15 | ~~20~~ 100 |
| $ | 65 1,2-Dichloroethane-d4 | 5263.33 | 5332.75 | 5197.56 | 5241.42 | 5458.98 | 5094.07 | 5222.19 | 5382.86 | 5274.15 | 114.39 | 342.94 | |
| | 66 tert-amyl methyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 67 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 68 1,2-Dichloroethane | 88.92 | 102.76 | 129.34 | 98.56 | 100.23 | 118.48 | 124.01 | 112.72 | 109.38 | 13.99 | 41.94 | 100 |
| | 69 Heptane | 87.20 | 84.91 | 89.90 | 82.28 | 94.02 | 79.43 | 108.59 | 92.23 | 89.82 | 9.04 | 27.09 | 100 |
| | 70 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| * | 71 1,4-Difluorobenzene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 | |
| | 72 Trichloroethene | 90.51 | 94.51 | 96.62 | 91.73 | 77.27 | 102.25 | 81.46 | 86.84 | 90.15 | 8.13 | 24.36 | 100/50 |
| | 73 Methylcyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 74 1,2-Dichloropropane | 105.66 | 106.62 | 101.76 | 122.23 | 107.88 | 94.10 | 120.69 | 104.89 | 107.98 | 9.36 | 28.05 | 100 |
| | 75 1,4-Dioxane | 117.90 | 111.19 | 116.33 | 102.33 | 90.61 | 69.49 | 77.65 | 72.94 | 94.81 | 19.83 | 59.45 | ↓ |
| | 76 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 77 Bromodichloromethane | 107.90 | 96.38 | 101.34 | 96.04 | 81.23 | 106.11 | 74.21 | 76.43 | 92.46 | 13.35 | 40.03 | 100/50 |
| | 78 cis-1,3-Dichloropropen | 81.26 | 91.05 | 100.62 | 81.69 | 78.10 | 88.71 | 80.00 | 74.92 | 84.54 | 8.38 | 25.13 | 100 |
| | 79 4-Methyl-2-pentanone | 103.65 | 95.85 | 70.61 | 98.94 | 93.97 | 99.40 | 81.51 | 89.89 | 91.73 | 10.88 | 32.62 | ↓ 212411483 |
| $ | 80 Toluene-d8 | 5047.72 | 4906.25 | 4849.61 | 4938.52 | 4879.00 | 5086.55 | 4960.03 | 4869.81 | 4942.19 | 85.69 | 256.91 | |
| | 81 Toluene | 103.24 | 100.77 | 115.09 | 103.92 | 98.95 | 94.97 | 112.27 | 98.73 | 103.49 | 6.92 | 20.74 | 100 |
| | 82 trans-1,3-Dichloroprop | 88.72 | 96.55 | 76.96 | 78.55 | 117.78 | 94.87 | 79.80 | 68.45 | 87.71 | 15.43 | 46.27 | 100 |
| | 83 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 84 1,1,2-Trichloroethane | 108.36 | 80.50 | 100.33 | 93.07 | 98.81 | 116.77 | 97.01 | 96.84 | 98.96 | 10.63 | 31.88 | 100/50 |
| | 85 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v14l0107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

RL(ppbV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 86 Tetrachloroethene | 98.61 | 87.76 | 97.76 | 97.99 | 100.06 | 109.47 | 98.85 | 96.20 | 98.34 | 5.91 | 17.71 | 100/50 |
| 87 2-Hexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 88 alpha-pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 89 Dibromochloromethane | 87.41 | 76.11 | 76.12 | 75.53 | 70.49 | 67.08 | 71.37 | 85.58 | 76.21 | 7.10 | 21.29 | 100/50 |
| 90 1,2-Dibromoethane | 87.42 | 80.94 | 80.49 | 101.56 | 99.72 | 93.02 | 87.71 | 79.53 | 88.80 | 8.62 | 25.83 | 100/50 |
| 91 1,1,1,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| * 92 Chlorobenzene-d5 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 | |
| 93 Chlorobenzene | 102.02 | 104.85 | 99.98 | 102.34 | 99.54 | 94.21 | 93.78 | 94.79 | 98.94 | 4.20 | 12.60 | 100 |
| 94 cis-1,4-dichloro-2-but | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 95 Ethyl Benzene | 105.83 | 101.05 | 107.23 | 102.39 | 116.42 | 105.53 | 97.05 | 90.84 | 103.29 | 7.55 | 22.64 | 100 |
| 96 m,p-Xylene | 113.16 | 116.11 | 119.13 | 98.71 | 98.81 | 108.72 | 106.06 | 98.16 | 107.36 | 8.32 | 24.95 | 100 |
| 97 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 98 trans-1,4-dichloro-2-b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 99 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 100 o-Xylene | 93.09 | 89.03 | 106.19 | 78.65 | 88.77 | 97.03 | 98.57 | 90.45 | 92.72 | 8.17 | 24.48 | 100 |
| 101 Styrene | 82.80 | 79.66 | 82.55 | 80.97 | 92.74 | 86.88 | 72.17 | 78.73 | 82.06 | 6.02 | 18.06 | 100 |
| 102 Bromoform | 77.30 | 75.11 | 85.62 | 72.06 | 74.97 | 74.64 | 69.81 | 73.35 | 75.36 | 4.71 | 14.13 | 100/50 |
| 103 Cumene | 86.88 | 96.21 | 84.33 | 91.47 | 92.54 | 103.89 | 83.03 | 82.38 | 90.09 | 7.45 | 22.34 | 100 |
| 104 Bis(2-Chloroethyl) Eth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2/21/14483 |
| 105 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| $ 106 Bromofluorobenzene | 4860.55 | 5214.25 | 5098.28 | 5332.85 | 5175.79 | 4879.61 | 5196.77 | 5086.48 | 5105.57 | 163.98 | 491.61 | |
| 107 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 108 1,1,2,2-Tetrachloroeth | 98.14 | 97.52 | 112.96 | 112.87 | 101.74 | 99.87 | 105.28 | 87.05 | 101.93 | 8.55 | 25.64 | 100/50 |
| 109 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

RL (ppbv)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 110 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 111 Propylbenzene | 94.28 | 84.51 | 95.84 | 90.21 | 98.20 | 89.66 | 98.13 | 108.99 | 94.98 | 7.35 | 22.05 | 100 |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 113 4-Ethyltoluene | 92.30 | 98.16 | 102.03 | 104.72 | 117.02 | 94.27 | 85.81 | 112.91 | 100.90 | 10.51 | 31.50 | 100 |
| 114 1,3,5-Trimethylbenzene | 96.10 | 112.60 | 98.68 | 132.91 | 87.31 | 108.61 | 116.79 | 110.03 | 107.88 | 14.04 | 42.09 | 100 |
| 115 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 116 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 117 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 119 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 120 1,2,4-Trimethylbenzene | 128.60 | 137.18 | 144.52 | 135.14 | 138.16 | 112.03 | 125.32 | 148.50 | 133.68 | 11.56 | 34.67 | 100/50 |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 122 1,3-Dichlorobenzene | 77.72 | 112.33 | 102.79 | 102.65 | 104.71 | 99.42 | 92.91 | 107.95 | 100.06 | 10.69 | 32.04 | 100/50 |
| 123 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 124 1,4-Dichlorobenzene | 105.64 | 100.65 | 103.11 | 99.65 | 91.08 | 97.32 | 99.47 | 97.19 | 99.26 | 4.35 | 13.05 | 100/50 |
| 125 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 127 alpha-chlorotoluene | 104.29 | 93.43 | 81.66 | 87.12 | 83.31 | 92.84 | 86.05 | 70.31 | 87.37 | 9.97 | 29.88 | 100 |
| 128 1,2-Dichlorobenzene | 89.33 | 119.49 | 97.17 | 89.42 | 99.85 | 119.94 | 85.29 | 86.33 | 98.35 | 14.11 | 42.29 | 100/50 |
| 129 1,2-dibromo-3-chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 131 1,2,4-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 132 Hexachlorobutadiene | 52.83 | 139.94 | 106.92 | 71.77 | 135.31 | 118.38 | 89.61 | 89.22 | 100.50 | 30.41 | 91.16 | 500 |
| 133 Naphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/14Feb2014.b/v14l0107a.m
Batch File: /chem/msdv.i/14Feb2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 204 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 205 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 206 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 207 1-Methoxy-2-Propyl Ace | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

TO15 Low level MDL
0.5ppbv RLs



0.5ppbv (1.0ppbv); load amount: 125mL # 2612-30a

MDL Verification: 0.3ppbv (1.0ppbv)
load amount: 75mL # 2612-300
V021907



Report Date : 18-Feb-2014 19:41

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

| ID: | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 |
|---|---|---|---|---|---|---|---|---|
| FILENAME: | v021806 | v021807 | v021808 | v021809 | v021810 | v021811 | v021812 | v021813 |
| INJ.DATE: | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 | 18-FEB-2014 |
| INJ.TIME: | 13:17 | 14:23 | 15:02 | 15:39 | 16:18 | 17:05 | 17:58 | 18:42 |

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | RL (ppbv) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Freon134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 2 Freon 152A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 3 Propylene | 618.17 | 532.99 | 595.62 | 545.26 | 648.22 | 557.52 | 559.24 | 573.25 | 578.78 | 39.17 | 117.44 | 500 |
| 4 Dichlorodifluoromethan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 5 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 6 Freon 114 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 7 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 8 Chloromethane | 587.84 | 575.49 | 553.85 | 515.12 | 552.24 | 600.07 | 584.09 | 586.80 | 569.44 | 27.57 | 82.64 | 500 |
| 9 Butane | 564.40 | 555.36 | 523.09 | 613.76 | 501.13 | 477.08 | 525.56 | 561.09 | 540.18 | 42.56 | 127.60 | 500 |
| 10 Vinyl Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 11 1,3-Butadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 12 Bromomethane | 475.03 | 429.79 | 538.23 | 489.15 | 459.52 | 468.93 | 497.42 | 484.64 | 480.34 | 31.36 | 94.03 | 500 |
| 13 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 14 Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 15 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 16 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Reviewer 1 _____ Date: 2/24/14
Reviewer 2 _____ Date: 2/24/14

$\bar{X} = 0.096$

$2\bar{X} = 0.2$ 2/24/14

$3\bar{X} = 0.3$ ppbv

Report Date : 18-Feb-2014 19:41



Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | RL(ppbv) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 Chloroethane | 536.54 | 519.59 | 588.39 | 494.73 | 463.13 | 524.89 | 453.44 | 561.53 | 517.78 | 46.23 | 138.61 | 500 |
| 18 Isopentane | 501.30 | 520.81 | 520.37 | 502.99 | 477.27 | 475.48 | 532.62 | 487.90 | 502.34 | 21.19 | 63.53 | 500 |
| 19 Diethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 20 Trichlorofluoromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 21 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 22 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 23 Methyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 24 Ethanol | 506.87 | 586.83 | 503.55 | 461.43 | 450.96 | 432.55 | 500.17 | 547.38 | 498.72 | 51.10 | 153.18 | 500 |
| 25 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 26 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 27 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 28 Freon 113 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 29 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 30 1,1-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 31 Acetone | 890.95 | 922.18 | 855.69 | 871.14 | 871.99 | 833.41 | 826.97 | 835.46 | 863.47 | 32.55 | 97.57 | 500 |
| 32 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 33 Carbon Disulfide | 485.98 | 468.85 | 511.74 | 475.08 | 458.70 | 484.51 | 488.02 | 466.75 | 479.95 | 16.50 | 49.47 | 500 |
| 34 2-Propanol | 395.38 | 396.55 | 437.15 | 391.47 | 421.83 | 363.74 | 386.30 | 428.55 | 402.62 | 24.57 | 73.66 | 500 |
| 35 3-Chloroprene | 380.10 | 342.92 | 422.27 | 394.18 | 452.83 | 386.24 | 348.34 | 393.02 | 389.99 | 36.02 | 107.98 | 500 |
| 36 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 37 Methylene Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 38 tert-butyl alcohol | 421.46 | 420.65 | 455.24 | 431.06 | 422.29 | 436.30 | 420.78 | 380.37 | 423.52 | 21.08 | 63.19 | 500 |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | RL(ppbv) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 MTBE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 40 trans-1,2-Dichloroethe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 41 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 42 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 43 Hexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 44 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 45 Isopropyl ether | 421.26 | 468.88 | 456.72 | 423.25 | 436.40 | 384.30 | 432.28 | 419.76 | 430.36 | 25.59 | 76.73 | 500 |
| 46 1,1-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 47 Vinyl Acetate | 364.92 | 480.15 | 396.68 | 342.20 | 406.72 | 313.36 | 355.29 | 338.10 | 374.68 | 52.45 | 157.25 | 500 |
| 48 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 49 Ethyl-tert-butyl ether | 427.68 | 411.09 | 445.68 | 430.31 | 421.82 | 406.89 | 418.82 | 413.46 | 421.97 | 12.49 | 37.45 | 500 |
| 50 cis-1,2-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 51 2-Butanone | 390.46 | 405.67 | 455.11 | 451.37 | 349.91 | 457.14 | 379.14 | 426.34 | 414.39 | 39.72 | 119.08 | 500 |
| 52 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 53 Tetrahydrofuran | 484.21 | 425.70 | 480.08 | 449.99 | 490.93 | 424.39 | 494.79 | 474.76 | 465.61 | 28.45 | 85.30 | 500 |
| * 54 Bromochloromethane | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 | |
| 55 Chloroform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 56 1,1-Dicholoropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 57 Cyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 58 1,1,1-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 59 Carbon Tetrachloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 60 Ethyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 61 2-Chloroethyl Vinyl Et | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 62 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

| | Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | RL(ppbv) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 63 2,2,4-Trimethylpentane | 463.77 | 420.28 | 459.19 | 439.60 | 436.20 | 416.80 | 444.82 | 436.34 | 439.63 | 16.52 | 49.52 | 500 |
| | 64 Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| $ | 65 1,2-Dichloroethane-d4 | 5142.08 | 5302.42 | 5251.14 | 5062.55 | 5415.19 | 4962.62 | 5122.16 | 5255.15 | 5189.17 | 144.50 | 433.22 | |
| | 66 tert-amyl methyl ether | 422.04 | 406.31 | 446.58 | 435.22 | 420.50 | 381.16 | 376.87 | 444.41 | 416.64 | 26.74 | 80.16 | 500 |
| | 67 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 68 1,2-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 69 Heptane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 70 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| * | 71 1,4-Difluorobenzene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 | |
| | 72 Trichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 73 Methylcyclohexane | 401.74 | 428.64 | 383.67 | 400.74 | 396.99 | 390.95 | 404.64 | 369.58 | 397.12 | 17.16 | 51.45 | 500 |
| | 74 1,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 75 1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 76 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 77 Bromodichloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 78 cis-1,3-Dichloropropen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 79 4-Methyl-2-pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| $ | 80 Toluene-d8 | 4830.30 | 5119.42 | 4849.77 | 4867.64 | 4914.25 | 4971.43 | 5044.42 | 4838.94 | 4929.52 | 106.57 | 319.48 | |
| | 81 Toluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 82 trans-1,3-Dichloroprop | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 83 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 84 1,1,2-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| | 85 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

RL(PPBV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 86 Tetrachloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 87 2-Hexanone | 375.79 | 348.92 | 351.88 | 342.35 | 383.06 | 342.20 | 356.55 | 298.69 | 349.93 | 25.52 | 76.50 |
| 88 alpha-pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 89 Dibromochloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 90 1,2-Dibromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 91 1,1,1,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * 92 Chlorobenzene-d5 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| 93 Chlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 94 cis-1,4-dichloro-2-but | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 95 Ethyl Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 96 m,p-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 97 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 98 trans-1,4-dichloro-2-b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 100 o-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 101 Styrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 102 Bromoform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 103 Cumene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 104 Bis(2-Chloroethyl) Eth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 105 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 106 Bromofluorobenzene | 5263.30 | 5314.97 | 5001.77 | 5068.54 | 5162.36 | 5181.60 | 4974.39 | 5221.97 | 5148.61 | 122.95 | 368.60 |
| 107 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 108 1,1,2,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 109 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

RL(PPbV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 110 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 111 Propylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 113 4-Ethyltoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 114 1,3,5-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 115 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 116 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 117 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 119 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 120 1,2,4-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 122 1,3-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 123 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 124 1,4-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 125 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 127 alpha-chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 128 1,2-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 129 1,2-dibromo-3-chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 131 1,2,4-Trichlorobenzene | 542.40 | 555.89 | 618.24 | 452.24 | 686.85 | 551.10 | 524.82 | 558.22 | 561.22 | 68.38 | 205.00 | 500 |
| 132 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 133 Naphthalene | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/18Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/18Feb2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 204 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 205 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 206 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 207 1-Methoxy-2-Propyl Ace | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

TO-15 Naphthalene* Lowlevel MDL (0.5ppbv)*

0.5ppbv*(5ppbv)*; load amount: 25mL #2612-209

MDL Verification: 0.3ppbv*(2.5ppbv)*
load amount: 30mL # 2612-115A
V022007



Report Date : 20-Feb-2014 07:48



Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

| ID: | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 |
|---|---|---|---|---|---|---|---|---|
| FILENAME: | v021911 | v021912 | v021913 | v021914 | v021915 | v021916 | v021917 | v021918 |
| INJ.DATE: | 19-FEB-2014 | 19-FEB-2014 | 19-FEB-2014 | 19-FEB-2014 | 19-FEB-2014 | 19-FEB-2014 | 19-FEB-2014 | 20-FEB-2014 |
| INJ.TIME: | 19:06 | 19:56 | 20:32 | 21:10 | 21:46 | 22:22 | 22:57 | 07:08 |

RL(pptv)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Freon134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Freon 152A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Propylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 Dichlorodifluoromethan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Freon 114 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 7 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 8 Chloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 9 Butane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 10 Vinyl Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 11 1,3-Butadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 12 Bromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 13 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 14 Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 15 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 16 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Reviewer 1 _____ Date: 2/24/14
Reviewer 2 _____ Date: 2/24/14

$\bar{x} = .168$
$2\bar{x} = .337$

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v14l0107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL (PPBV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 18 Isopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 19 Diethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Trichlorofluoromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 21 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 22 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 Methyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 24 Ethanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 25 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 26 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 27 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 28 Freon 113 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 29 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 30 1,1-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Acetone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Carbon Disulfide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 2-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 35 3-Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 36 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 Methylene Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 38 tert-butyl alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL (ppbv)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 MTBE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 trans-1,2-Dichloroethe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 41 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 42 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 Hexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 44 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 45 Isopropyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 46 1,1-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 47 Vinyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 48 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 49 Ethyl-tert-butyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 cis-1,2-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 2-Butanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 52 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 53 Tetrahydrofuran | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * 54 Bromochloromethane | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| 55 Chloroform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 1,1-Dicholoropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Cyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 58 1,1,1-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 59 Carbon Tetrachloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 60 Ethyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 61 2-Chloroethyl Vinyl Et | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 62 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v14l0107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL (ppbv)

| | Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 63 2,2,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 64 Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ | 65 1,2-Dichloroethane-d4 | 5253.92 | 5031.48 | 5361.68 | 5186.87 | 5304.98 | 5213.97 | 5126.65 | 4919.19 | 5174.84 | 145.41 | 435.94 |
| | 66 tert-amyl methyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 67 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 68 1,2-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 69 Heptane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 70 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * | 71 1,4-Difluorobenzene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| | 72 Trichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 73 Methylcyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 74 1,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 75 1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 76 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 77 Bromodichloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 78 cis-1,3-Dichloropropen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 79 4-Methyl-2-pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ | 80 Toluene-d8 | 5053.77 | 5152.87 | 4987.31 | 5112.97 | 5022.12 | 4973.61 | 4955.10 | 4878.90 | 5017.08 | 88.41 | 265.06 |
| | 81 Toluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 82 trans-1,3-Dichloroprop | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 83 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 84 1,1,2-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 85 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v14l0107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL (PPBV)

| | Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 86 Tetrachloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 87 2-Hexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 88 alpha-pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 89 Dibromochloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 90 1,2-Dibromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 91 1,1,1,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * | 92 Chlorobenzene-d5 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| | 93 Chlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 94 cis-1,4-dichloro-2-but | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 95 Ethyl Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 96 m,p-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 97 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 98 trans-1,4-dichloro-2-b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 99 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 100 o-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 101 Styrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 102 Bromoform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 103 Cumene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 104 Bis(2-Chloroethyl) Eth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 105 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ | 106 Bromofluorobenzene | 5397.41 | 5406.58 | 5394.35 | 5348.34 | 5581.09 | 5614.98 | 5499.39 | 5395.39 | 5454.69 | 98.37 | 294.90 |
| | 107 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 108 1,1,2,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 109 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL (ppbv)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 110 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 111 Propylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 113 4-Ethyltoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 114 1,3,5-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 115 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 116 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 117 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 119 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 1,2,4-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 122 1,3-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 123 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 1,4-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 125 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 alpha-chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 128 1,2-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 129 1,2-dibromo-3-chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 131 1,2,4-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 132 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 133 Naphthalene | 674.33 | 786.97 | 620.41 | 758.50 | 706.04 | 677.54 | 639.18 | 683.18 | 693.27 | 56.24 | 168.61 |

500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Feb2014.b/v1410107a.m
Batch File: /chem/msdv.i/19Feb2014.b
Inst ID: msdv.i

RL(ppt ✓)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | MDL08 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 204 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 205 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 206 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 207 1-Methoxy-2-Propyl Ace | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Report Date : 19-Aug-2014 21:27



0.05ppbv (RL)
Low level sp RL for 1,2,4-Trichlorobenzene & Hexachlorobutadiene
0.2ppbv (10ppbv); load amount: 50ml
#2677-112

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| ID: | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | v081907 | v081908 | v081909 | v081910 | v081911 | v081912 | v081913 |
| INJ.DATE: | 19-AUG-2014 | 19-AUG-2014 | 19-AUG-2014 | 19-AUG-2014 | 19-AUG-2014 | 19-AUG-2014 | 19-AUG-2014 |
| INJ.TIME: | 13:59 | 14:34 | 15:10 | 15:48 | 16:58 | 17:34 | 18:20 |

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 Freon134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 208 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Freon 152A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Propylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 Dichlorodifluoromethan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Freon 114 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 7 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 8 Chloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 9 Butane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 10 Vinyl Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 11 1,3-Butadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 12 Bromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 13 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 14 Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 15 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 16 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

MDL Verification:
File: V081919
0.04ppbv (0.05ppbv)

Reviewer 1 _____ Date: 8/19/14
Reviewer 2 _____ Date: 8/20/14

X.033

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

RL (0.05ppbv)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 110 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 111 Propylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 113 4-Ethyltoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 114 1,3,5-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 115 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 116 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 117 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 119 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 1,2,4-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 122 1,3-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 123 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 1,4-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 125 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 alpha-chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 128 1,2-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 129 1,2-dibromo-3-chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 131 1,2,4-Trichlorobenzene | 261.12 | 245.26 | 239.66 | 254.63 | 251.79 | 224.28 | 254.47 | 247.31 | 12.31 | 38.69 |
| 132 Hexachlorobutadiene | 214.47 | 224.50 | 218.12 | 210.61 | 211.03 | 201.42 | 201.51 | 211.67 | 8.40 | 26.41 |
| 133 Naphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 18 Isopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 19 Diethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Trichlorofluoromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 21 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 22 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 Methyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 24 Ethanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 25 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 26 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 27 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 28 Freon 113 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 29 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 30 1,1-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Acetone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Carbon Disulfide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 2-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 35 3-Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 36 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 Methylene Chloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 38 tert-butyl alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 39 MTBE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 trans-1,2-Dichloroethe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 41 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 42 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 Hexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 44 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 45 Isopropyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 46 1,1-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 47 Vinyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 48 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 49 Ethyl-tert-butyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 cis-1,2-Dichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 2-Butanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 52 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 53 Tetrahydrofuran | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * 54 Bromochloromethane | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| 55 Chloroform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 1,1-Dicholoropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Cyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 58 1,1,1-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 59 Carbon Tetrachloride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 60 Ethyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 61 2-Chloroethyl Vinyl Et | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 62 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| | Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 63 2,2,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 64 Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ | 65 1,2-Dichloroethane-d4 | 4783.72 | 4760.60 | 4843.58 | 4920.36 | 4764.78 | 4977.41 | 4854.08 | 4843.50 | 82.25 | 258.52 |
| | 66 tert-amyl methyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 67 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 68 1,2-Dichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 69 Heptane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 70 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * | 71 1,4-Difluorobenzene | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| | 72 Trichloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 73 Methylcyclohexane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 74 1,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 75 1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 76 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 77 Bromodichloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 78 cis-1,3-Dichloropropen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 79 4-Methyl-2-pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ | 80 Toluene-d8 | 4896.44 | 4965.79 | 4936.81 | 4939.63 | 5011.49 | 4932.28 | 5022.21 | 4957.81 | 45.25 | 142.21 |
| | 81 Toluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 82 trans-1,3-Dichloroprop | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 83 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 84 1,1,2-Trichloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| | 85 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 86 Tetrachloroethene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 87 2-Hexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 88 alpha-pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 89 Dibromochloromethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 90 1,2-Dibromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 91 1,1,1,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| * 92 Chlorobenzene-d5 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 5000.00 | 0.00 | 0.00 |
| 93 Chlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 94 cis-1,4-dichloro-2-but | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 95 Ethyl Benzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 96 m,p-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 97 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 98 trans-1,4-dichloro-2-b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 100 o-Xylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 101 Styrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 102 Bromoform | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 103 Cumene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 104 Bis(2-Chloroethyl) Eth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 105 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 106 Bromofluorobenzene | 4760.46 | 4836.05 | 4499.36 | 4921.34 | 4814.05 | 4800.97 | 4641.24 | 4753.35 | 140.32 | 441.03 |
| 107 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 108 1,1,2,2-Tetrachloroeth | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 109 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v14l0814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

RL (ppbV)

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL | | SPRL (ppbV) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 110 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 111 Propylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 112 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 113 4-Ethyltoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 114 1,3,5-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 115 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 116 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 117 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 118 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 119 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 120 1,2,4-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 121 1,2,3-trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 122 1,3-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 123 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 124 1,4-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 125 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 126 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 127 alpha-chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 128 1,2-Dichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 129 1,2-dibromo-3-chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 130 1,2,3-trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 131 1,2,4-Trichlorobenzene | 261.12 | 245.26 | 239.66 | 254.63 | 251.79 | 224.28 | 254.47 | 247.31 | 12.31 | 38.69 | 500 | 50 |
| 132 Hexachlorobutadiene | 214.47 | 224.50 | 218.12 | 210.61 | 211.03 | 201.42 | 201.51 | 211.67 | 8.40 | 26.41 | 500 | 50 |
| 133 Naphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdv.i/19Aug2014.b/v1410814b.m
Batch File: /chem/msdv.i/19Aug2014.b
Inst ID: msdv.i

| Compound | MDL01 | MDL02 | MDL03 | MDL04 | MDL05 | MDL06 | MDL07 | AVG CONC | STD DEV | MDL |
|---|---|---|---|---|---|---|---|---|---|---|
| 204 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 205 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 206 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 207 1-Methoxy-2-Propyl Ace | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

eurofins | Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 1412151AR1-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121602** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 08:42 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 117 |
| Freon 114 | 108 |
| Chloromethane | 115 |
| Vinyl Chloride | 125 |
| 1,3-Butadiene | 123 |
| Bromomethane | 127 |
| Chloroethane | 125 |
| Freon 11 | 114 |
| Ethanol | 138 Q |
| Freon 113 | 105 |
| 1,1-Dichloroethene | 116 |
| Acetone | 124 |
| 2-Propanol | 126 |
| Carbon Disulfide | 126 |
| 3-Chloropropene | 123 |
| Methylene Chloride | 119 |
| Methyl tert-butyl ether | 122 |
| trans-1,2-Dichloroethene | 122 |
| Hexane | 118 |
| 1,1-Dichloroethane | 115 |
| 2-Butanone (Methyl Ethyl Ketone) | 127 |
| cis-1,2-Dichloroethene | 118 |
| Tetrahydrofuran | 120 |
| Chloroform | 113 |
| 1,1,1-Trichloroethane | 112 |
| Cyclohexane | 119 |
| Carbon Tetrachloride | 103 |
| 2,2,4-Trimethylpentane | 119 |
| Benzene | 117 |
| 1,2-Dichloroethane | 108 |
| Heptane | 117 |
| Trichloroethene | 110 |
| 1,2-Dichloropropane | 120 |
| 1,4-Dioxane | 110 |
| Bromodichloromethane | 114 |
| cis-1,3-Dichloropropene | 123 |
| 4-Methyl-2-pentanone | 115 |
| Toluene | 115 |
| trans-1,3-Dichloropropene | 111 |
| 1,1,2-Trichloroethane | 109 |
| Tetrachloroethene | 103 |
| 2-Hexanone | 98 |

eurofins | Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 1412151AR1-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121602** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 08:42 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Dibromochloromethane | 99 |
| 1,2-Dibromoethane (EDB) | 107 |
| Chlorobenzene | 101 |
| Ethyl Benzene | 106 |
| m,p-Xylene | 104 |
| o-Xylene | 103 |
| Styrene | 98 |
| Bromoform | 88 |
| Cumene | 100 |
| 1,1,2,2-Tetrachloroethane | 88 |
| Propylbenzene | 98 |
| 4-Ethyltoluene | 91 |
| 1,3,5-Trimethylbenzene | 100 |
| 1,2,4-Trimethylbenzene | 112 |
| 1,3-Dichlorobenzene | 68 Q |
| 1,4-Dichlorobenzene | 63 Q |
| alpha-Chlorotoluene | 67 Q |
| 1,2-Dichlorobenzene | 62 Q |
| 1,2,4-Trichlorobenzene | 76 |
| Hexachlorobutadiene | 61 Q |
| Naphthalene | 79 |

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 16-DEC-2014 08:42
Lab File ID: v121602.d Init. Cal. Date(s): 06-OCT-2014 03-NOV-2014
Analysis Type: AIR Init. Cal. Times: 15:09 11:17
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/16Dec2014.b/v14l1006d.m

| COMPOUND | RRF / AMOUNT | RF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE | |
|---|---|---|---|---|---|---|---|
| $ 65 1,2-Dichloroethane-d4 | 1.83501 | 1.82220 | 0.010 | 0.69829 | 30.00000 | Averaged | |
| $ 80 Toluene-d8 | 0.96131 | 0.99136 | 0.010 | -3.12538 | 30.00000 | Averaged | |
| $ 106 Bromofluorobenzene | 0.43000 | 0.41350 | 0.010 | 3.83673 | 30.00000 | Averaged | |
| 3 Propylene | 2.80514 | 3.56685 | 0.010 | -27.15413 | 30.00000 | Averaged | |
| 4 Dichlorodifluoromethane/Fr1 | 4.68442 | 5.46852 | 0.010 | -16.73854 | 30.00000 | Averaged | |
| 6 Freon 114 | 3.34539 | 3.61343 | 0.010 | -8.01238 | 30.00000 | Averaged | |
| 8 Chloromethane | 2.82300 | 3.23842 | 0.010 | -14.71566 | 30.00000 | Averaged | |
| 9 Butane | 0.47309 | 0.59853 | 0.010 | -26.51516 | 30.00000 | Averaged | |
| 10 Vinyl Chloride | 2.10652 | 2.63097 | 0.010 | -24.89657 | 30.00000 | Averaged | |
| 11 1,3-Butadiene | 2.06513 | 2.53189 | 0.010 | -22.60176 | 30.00000 | Averaged | |
| 12 Bromomethane | 1.29142 | 1.64488 | 0.010 | -27.36995 | 30.00000 | Averaged | |
| 17 Chloroethane | 0.97900 | 1.22445 | 0.010 | -25.07129 | 30.00000 | Averaged | |
| 18 Isopentane | 2.01670 | 2.49246 | 0.010 | -23.59133 | 30.00000 | Averaged | |
| 20 Trichlorofluoromethane/Fr11 | 4.82187 | 5.48258 | 0.010 | -13.70247 | 30.00000 | Averaged | |
| 24 Ethanol | 1.02216 | 1.41212 | 0.010 | -38.15141 | 30.00000 | Averaged | <- |
| 30 1,1-Dichloroethene | 1.07752 | 1.24980 | 0.010 | -15.98847 | 30.00000 | Averaged | |
| 28 Freon 113 | 2.90253 | 3.05089 | 0.010 | -5.11160 | 30.00000 | Averaged | |
| 31 Acetone | 1.18134 | 1.45899 | 0.010 | -23.50222 | 30.00000 | Averaged | |
| 33 Carbon Disulfide | 4.58304 | 5.77831 | 0.010 | -26.08039 | 30.00000 | Averaged | |
| 35 3-Chloroprene | 0.66137 | 0.81121 | 0.010 | -22.65574 | 30.00000 | Averaged | |
| 34 2-Propanol | 5.47035 | 6.87206 | 0.010 | -25.62385 | 30.00000 | Averaged | |
| 37 Methylene Chloride | 1.52007 | 1.81122 | 0.010 | -19.15369 | 30.00000 | Averaged | |
| 39 MTBE | 5.45367 | 6.68469 | 0.010 | -22.57250 | 30.00000 | Averaged | |
| 40 trans-1,2-Dichloroethene | 1.01951 | 1.24875 | 0.010 | -22.48503 | 30.00000 | Averaged | |
| 43 Hexane | 4.36389 | 5.17312 | 0.010 | -18.54367 | 30.00000 | Averaged | |
| 46 1,1-Dichloroethane | 4.23480 | 4.88508 | 0.010 | -15.35573 | 30.00000 | Averaged | |
| 47 Vinyl Acetate | 0.43226 | 0.54570 | 0.010 | -26.24266 | 30.00000 | Averaged | |
| 50 cis-1,2-Dichloroethene | 1.35292 | 1.59732 | 0.010 | -18.06458 | 30.00000 | Averaged | |
| 51 2-Butanone | 0.87928 | 1.11421 | 0.010 | -26.71764 | 30.00000 | Averaged | |
| 53 Tetrahydrofuran | 4.53104 | 5.42199 | 0.010 | -19.66324 | 30.00000 | Averaged | |
| 55 Chloroform | 4.21362 | 4.78230 | 0.010 | -13.49645 | 30.00000 | Averaged | |
| 57 Cyclohexane | 2.65011 | 3.15336 | 0.010 | -18.98965 | 30.00000 | Averaged | |
| 58 1,1,1-Trichloroethane | 4.39992 | 4.92751 | 0.010 | -11.99074 | 30.00000 | Averaged | |
| 59 Carbon Tetrachloride | 4.22054 | 4.35255 | 0.010 | -3.12781 | 30.00000 | Averaged | |
| 63 2,2,4-Trimethylpentane | 4.61826 | 5.47835 | 0.010 | -18.62378 | 30.00000 | Averaged | |
| 64 Benzene | 1.47552 | 1.72188 | 0.010 | -16.69653 | 30.00000 | Averaged | |

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 16-DEC-2014 08:42
Lab File ID: v121602.d Init. Cal. Date(s): 06-OCT-2014 03-NOV-2014
Analysis Type: AIR Init. Cal. Times: 15:09 11:17
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/16Dec2014.b/v14l1006d.m

| COMPOUND | RRF / AMOUNT | RF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE | |
|---|---|---|---|---|---|---|---|
| 68 1,2-Dichloroethane | 0.89420 | 0.96281 | 0.010 | -7.67252 | 30.00000 | Averaged | |
| 69 Heptane | 0.63594 | 0.74198 | 0.010 | -16.67536 | 30.00000 | Averaged | |
| 72 Trichloroethene | 0.66422 | 0.73088 | 0.010 | -10.03683 | 30.00000 | Averaged | |
| 73 Methylcyclohexane | 0.87225 | 1.05209 | 0.010 | -20.61810 | 30.00000 | Averaged | |
| 74 1,2-Dichloropropane | 0.67686 | 0.81374 | 0.010 | -20.22285 | 30.00000 | Averaged | |
| 75 1,4-Dioxane | 0.34017 | 0.37582 | 0.010 | -10.48169 | 30.00000 | Averaged | |
| 77 Bromodichloromethane | 1.12057 | 1.28119 | 0.010 | -14.33352 | 30.00000 | Averaged | |
| 78 cis-1,3-Dichloropropene | 0.76585 | 0.94405 | 0.010 | -23.26814 | 30.00000 | Averaged | |
| 79 4-Methyl-2-pentanone | 2.08270 | 2.39952 | 0.010 | -15.21190 | 30.00000 | Averaged | |
| 81 Toluene | 1.62872 | 1.87152 | 0.010 | -14.90729 | 30.00000 | Averaged | |
| 82 trans-1,3-Dichloropropene | 1.03064 | 1.14275 | 0.010 | -10.87717 | 30.00000 | Averaged | |
| 84 1,1,2-Trichloroethane | 0.78704 | 0.85728 | 0.010 | -8.92535 | 30.00000 | Averaged | |
| 86 Tetrachloroethene | 1.01755 | 1.05003 | 0.010 | -3.19233 | 30.00000 | Averaged | |
| 87 2-Hexanone | 0.88132 | 0.86099 | 0.010 | 2.30716 | 30.00000 | Averaged | |
| 89 Dibromochloromethane | 1.46483 | 1.44628 | 0.010 | 1.26609 | 30.00000 | Averaged | |
| 90 1,2-Dibromoethane | 1.22607 | 1.31375 | 0.010 | -7.15102 | 30.00000 | Averaged | |
| 93 Chlorobenzene | 1.64196 | 1.65685 | 0.010 | -0.90709 | 30.00000 | Averaged | |
| 95 Ethyl Benzene | 0.73697 | 0.78499 | 0.010 | -6.51518 | 30.00000 | Averaged | |
| 96 m,p-Xylene | 0.72670 | 0.75757 | 0.010 | -4.24836 | 30.00000 | Averaged | |
| 100 o-Xylene | 0.67621 | 0.69788 | 0.010 | -3.20429 | 30.00000 | Averaged | |
| 101 Styrene | 0.98928 | 0.96934 | 0.010 | 2.01533 | 30.00000 | Averaged | |
| 102 Bromoform | 1.24154 | 1.09610 | 0.010 | 11.71436 | 30.00000 | Averaged | |
| 103 Cumene | 1.97466 | 1.97405 | 0.010 | 0.03111 | 30.00000 | Averaged | |
| 108 1,1,2,2-Tetrachloroethane | 1.51689 | 1.33350 | 0.010 | 12.08975 | 30.00000 | Averaged | |
| 111 Propylbenzene | 1.75155 | 1.71957 | 0.010 | 1.82549 | 30.00000 | Averaged | |
| 113 4-Ethyltoluene | 1.28498 | 1.16935 | 0.010 | 8.99858 | 30.00000 | Averaged | |
| 114 1,3,5-Trimethylbenzene | 1.07289 | 1.07015 | 0.010 | 0.25490 | 30.00000 | Averaged | |
| 120 1,2,4-Trimethylbenzene | 0.86896 | 0.97437 | 0.010 | -12.13125 | 30.00000 | Averaged | |
| 122 1,3-Dichlorobenzene | 0.83846 | 0.56745 | 0.010 | 32.32177 | 30.00000 | Averaged | <- |
| 124 1,4-Dichlorobenzene | 0.78823 | 0.49745 | 0.010 | 36.89123 | 30.00000 | Averaged | <- |
| 127 alpha-chlorotoluene | 0.84217 | 0.56200 | 0.010 | 33.26788 | 30.00000 | Averaged | <- |
| 128 1,2-Dichlorobenzene | 0.77795 | 0.47861 | 0.010 | 38.47817 | 30.00000 | Averaged | <- |
| 131 1,2,4-Trichlorobenzene | 0.57091 | 0.43148 | 0.010 | 24.42190 | 30.00000 | Averaged | |
| 132 Hexachlorobutadiene | 0.47748 | 0.29135 | 0.010 | 38.98138 | 30.00000 | Averaged | <- |
| 133 Naphthalene | 1.35204 | 1.06721 | 0.010 | 21.06654 | 40.00000 | Averaged | |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121602.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-DEC-2014 08:42
Operator : ef Inst ID: msdv.i
Smp Info : 25mL #2687-48
Misc Info : 5.0ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 16-Dec-2014 10:10 efinn Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12-Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.933 (1.000) | 130 | 109722 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 83511 | | | 47.55- 107.55 | 76.11 |
| 15.933 | 15.933 (1.000) | 49 | 277123 | | | 213.64- 273.64 | 252.57 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 445503 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 72570 | | | 0.00- 46.17 | 16.29 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 361081 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 223223 | | | 28.56- 88.56 | 61.82 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 199935 | 5.00000 | 4.965 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 116770 | | | 28.37- 88.37 | 58.40 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.879 | 19.879 (1.149) | 98 | 441653 | 5.00000 | 5.156 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 56275 | | | 0.00- 41.90 | 12.74 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.856  19.879 (1.147)   100    285320                    34.60-  94.60    64.60
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    149306 5.00000    4.808  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    214771                  113.85- 173.85   143.85
 23.704  23.704 (1.067)   176    147644                   68.89- 128.89    98.89
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.711   4.711 (0.296)    41    391362 5.00000    6.358  80.00- 120.00   100.00
  4.673   4.711 (0.293)    42    259701                   35.18-  95.18    66.36
  4.673   4.711 (0.293)    39    288790                   44.12- 104.12    73.79
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85    600017 5.00000    5.837  80.00- 120.00   100.00
  5.202   5.202 (0.326)    87    189448                    1.57-  61.57    31.57
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.713   6.713 (0.421)   135    396473 5.00000    5.401  80.00- 120.00   100.00
  6.713   6.713 (0.421)   137    125240                    0.53-  60.53    31.59
  6.713   6.713 (0.421)    85    651733                  121.37- 181.37   164.38
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.052   7.052 (0.443)    50    355326 5.00000    5.736  80.00- 120.00   100.00
  7.052   7.052 (0.443)    52    108720                    1.81-  61.81    30.60
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.884   7.884 (0.495)    58     65672 5.00000    6.326  80.00- 120.00   100.00
  7.853   7.884 (0.493)    43    740493                 1065.18-1125.18  1127.56
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62    288675 5.00000    6.245  80.00- 120.00   100.00
  8.009   8.009 (0.503)    64     85222                    0.00-  59.52    29.52
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54    277804 5.00000    6.130  80.00- 120.00   100.00
  8.257   8.257 (0.518)    39    411947                  107.15- 167.15   148.29
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    180479 5.00000    6.368  80.00- 120.00   100.00
  9.834   9.834 (0.617)    96    163189                   60.42- 120.42    90.42
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.340  10.340 (0.649)    64    134349 5.00000    6.254  80.00- 120.00   100.00
 10.340  10.340 (0.649)    66     41097                    0.00-  59.90    30.59
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 273478 | 5.00000 | 6.180 | 80.00- 120.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 583461 | | | 171.32- 231.32 | 213.35 |
| 10.533 | 10.533 (0.661) | 42 | 510190 | | | 150.03- 210.03 | 186.56 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.183 | 11.183 (0.702) | 101 | 601560 | 5.00000 | 5.685 | 80.00- 120.00 | 100.00 |
| 11.183 | 11.183 (0.702) | 103 | 385656 | | | 34.11- 94.11 | 64.11 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.759) | 45 | 154941 | 5.00000 | 6.908 | 80.00- 120.00 | 100.00 |
| 12.101 | 12.101 (0.759) | 46 | 57596 | | | 8.51- 68.51 | 37.17 |
| 12.101 | 12.101 (0.759) | 43 | 29401 | | | 0.00- 54.10 | 18.98 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 137131 | 5.00000 | 5.799 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 479240 | | | 320.65- 380.65 | 349.48 |
| 12.568 | 12.568 (0.789) | 96 | 226357 | | | 134.30- 194.30 | 165.07 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 334750 | 5.00000 | 5.256 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 213053 | | | 33.65- 93.65 | 63.65 |
| 12.568 | 12.568 (0.789) | 101 | 450843 | | | 96.37- 156.37 | 134.68 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 160083 | 5.00000 | 6.175 | 80.00- 120.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 702774 | | | 413.15- 473.15 | 439.01 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 634008 | 5.00000 | 6.304 | 80.00- 120.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.365 | 13.365 (0.839) | 76 | 89008 | 5.00000 | 6.133 | 80.00- 120.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 555109 | | | 547.03- 607.03 | 623.66 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 754016 | 5.00000 | 6.281 | 80.00- 120.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 147118 | | | 0.00- 50.74 | 19.51 |
| 13.173 | 13.173 (0.827) | 59 | 19070 | | | 0.00- 32.83 | 2.53 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 198731 | 5.00000 | 5.958 | 80.00- 120.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 480426 | | | 212.37- 272.37 | 241.75 |
| 13.640 | 13.640 (0.856) | 51 | 136686 | | | 43.31- 103.31 | 68.78 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.996 | 13.996 (0.878) | 73 | 733458 | 5.00000 | 6.129 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 39 MTBE (continued) | | | | | | | |
| 13.996 | 13.996 (0.878) | 57 | 229335 | | | 2.99- 62.99 | 31.27 |
| 13.996 | 13.996 (0.878) | 41 | 318061 | | | 12.12- 72.12 | 43.36 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 137015 | 5.00000 | 6.124 | 80.00- 120.00 | 100.00 |
| 14.051 | 14.051 (0.882) | 61 | 403916 | | | 293.73- 353.73 | 294.80 |
| 14.051 | 14.051 (0.882) | 96 | 213972 | | | 146.88- 206.88 | 156.17 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 567605 | 5.00000 | 5.927 | 80.00- 120.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 524469 | | | 57.65- 117.65 | 92.40 |
| 14.381 | 14.381 (0.903) | 86 | 60523 | | | 0.00- 40.67 | 10.66 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 536001 | 5.00000 | 5.768 | 80.00- 120.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 160300 | | | 0.37- 60.37 | 29.91 |
| 47 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.793 | 14.793 (0.928) | 86 | 59875 | 5.00000 | 6.312 | 80.00- 120.00 | 100.00 |
| 14.793 | 14.793 (0.928) | 42 | 172018 | | | 220.92- 280.92 | 287.30 |
| 14.793 | 14.793 (0.928) | 43 | 2026103 | | | 3282.47-3342.47 | 3383.89 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 175261 | 5.00000 | 5.903 | 80.00- 120.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 61 | 484496 | | | 248.69- 308.69 | 276.44 |
| 15.592 | 15.592 (0.979) | 96 | 275121 | | | 126.98- 186.98 | 156.98 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.571 | 15.571 (0.977) | 72 | 122253 | 5.00000 | 6.336 | 80.00- 120.00 | 100.00 |
| 15.571 | 15.571 (0.977) | 43 | 953047 | | | 794.80- 854.80 | 779.57 |
| 15.571 | 15.571 (0.977) | 57 | 51066 | | | 18.01- 78.01 | 41.77 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 594912 | 5.00000 | 5.983 | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 113770 | | | 0.00- 49.03 | 19.12 |
| 15.933 | 15.933 (1.000) | 72 | 129061 | | | 0.00- 51.35 | 21.69 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 524724 | 5.00000 | 5.675 | 80.00- 120.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 344905 | | | 33.33- 93.33 | 65.73 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.242 | 16.242 (1.019) | 84 | 345993 | 5.00000 | 5.949 | 80.00- 120.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 56 | 640249 | | | 157.43- 217.43 | 185.05 |
| 16.242 | 16.242 (1.019) | 41 | 489393 | | | 105.99- 165.99 | 141.45 |

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   58 1,1,1-Trichloroethane                        CAS #: 71-55-6
 16.242  16.242 (1.019)    97    540656 5.00000    5.600  80.00- 120.00   100.00
 16.242  16.242 (1.019)    99    345172                   32.16-  92.16    63.84
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                         CAS #: 56-23-5
 16.457  16.457 (1.033)   119    477570 5.00000    5.156  80.00- 120.00   100.00
 16.457  16.457 (1.033)   117    483815                   69.67- 129.67   101.31
                   Sum of Peak Amounts =            5.16
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.728  16.728 (1.050)    56    601096 5.00000    5.931  80.00- 120.00   100.00
 16.728  16.728 (1.050)    57   1770531                  258.69- 318.69   294.55
 16.728  16.728 (1.050)    41    708655                   79.91- 139.91   117.89
-------------------------------------------------------------------------------
   64 Benzene                                      CAS #: 71-43-2
 16.756  16.756 (0.968)    78    767103 5.00000    5.835  80.00- 120.00   100.00
 16.756  16.756 (0.968)    77    181619                    0.00-  53.73    23.68
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                           CAS #: 107-06-2
 16.865  16.865 (0.975)    62    428933 5.00000    5.384  80.00- 120.00   100.00
 16.865  16.865 (0.975)    64    133074                    1.11-  61.11    31.02
-------------------------------------------------------------------------------
   69 Heptane                                      CAS #: 142-82-5
 16.948  16.948 (0.979)    57    330555 5.00000    5.834  80.00- 120.00   100.00
 16.975  16.948 (0.981)   100     74483                    0.00-  51.27    22.53
 16.948  16.948 (0.979)    43    889459                  235.24- 295.24   269.08
-------------------------------------------------------------------------------
   72 Trichloroethene                              CAS #: 79-01-6
 17.716  17.716 (1.024)   130    325611 5.00000    5.502  80.00- 120.00   100.00
 17.716  17.716 (1.024)    95    344582                   71.16- 131.16   105.83
 17.716  17.716 (1.024)    97    219942                   33.04-  93.04    67.55
-------------------------------------------------------------------------------
   73 Methylcyclohexane                            CAS #: 108-87-2
 17.964  17.964 (1.038)    83    468710 5.00000    6.031  80.00- 120.00   100.00
 17.964  17.964 (1.038)    98    204412                   15.02-  75.02    43.61
 17.964  17.964 (1.038)    55    568820                   95.64- 155.64   121.36
-------------------------------------------------------------------------------
   74 1,2-Dichloropropane                          CAS #: 78-87-5
 18.156  18.156 (1.049)    63    362523 5.00000    6.011  80.00- 120.00   100.00
 18.156  18.156 (1.049)    62    259678                   45.17- 105.17    71.63
 18.156  18.156 (1.049)    41    330369                   61.13- 121.13    91.13
-------------------------------------------------------------------------------
   75 1,4-Dioxane                                  CAS #: 123-91-1
 18.266  18.266 (1.056)    88    167429 5.00000    5.524  80.00- 120.00   100.00
 18.266  18.266 (1.056)    58    170505                   72.13- 132.13   101.84
 18.266  18.266 (1.056)    57     55416                    4.41-  64.41    33.10
-------------------------------------------------------------------------------
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| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 570774 | 5.00000 | 5.717 | 80.00- 120.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 362484 | | | 32.12- 92.12 | 63.51 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.386 | 19.386 (1.120) | 75 | 420578 | 5.00000 | 6.163 | 80.00- 120.00 | 100.00 |
| 19.386 | 19.386 (1.120) | 77 | 132315 | | | 1.25- 61.25 | 31.46 |
| 19.386 | 19.386 (1.120) | 39 | 429395 | | | 72.10- 132.10 | 102.10 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 1068993 | 5.00000 | 5.760 | 80.00- 120.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 284078 | | | 0.00- 57.24 | 26.57 |
| 19.587 | 19.587 (1.132) | 85 | 89983 | | | 0.00- 38.20 | 8.42 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 833766 | 5.00000 | 5.745 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 482995 | | | 28.60- 88.60 | 57.93 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 412625 | 5.00000 | 5.544 | 80.00- 120.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 126501 | | | 5.48- 65.48 | 30.66 |
| 20.435 | 20.435 (0.920) | 39 | 402021 | | | 67.43- 127.43 | 97.43 |
| 84 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.757 | 20.757 (0.935) | 97 | 309548 | 5.00000 | 5.446 | 80.00- 120.00 | 100.00 |
| 20.757 | 20.757 (0.935) | 99 | 188875 | | | 32.13- 92.13 | 61.02 |
| 20.722 | 20.757 (0.933) | 83 | 274843 | | | 58.79- 118.79 | 88.79 |
| 86 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.901 | 20.901 (0.941) | 166 | 379147 | 5.00000 | 5.160 | 80.00- 120.00 | 100.00 |
| 20.901 | 20.901 (0.941) | 129 | 300782 | | | 47.04- 107.04 | 79.33 |
| 20.901 | 20.901 (0.941) | 131 | 287347 | | | 46.95- 106.95 | 75.79 |
| 87 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 21.044 | 21.044 (0.948) | 58 | 310886 | 5.00000 | 4.885 | 80.00- 120.00 | 100.00 |
| 21.044 | 21.044 (0.948) | 43 | 838293 | | | 242.48- 302.48 | 269.65 |
| 21.044 | 21.044 (0.948) | 100 | 43518 | | | 0.00- 43.88 | 14.00 |
| 89 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 21.367 | 21.367 (0.962) | 129 | 522225 | 5.00000 | 4.937 | 80.00- 120.00 | 100.00 |
| 21.367 | 21.367 (0.962) | 127 | 411796 | | | 50.38- 110.38 | 78.85 |
| 90 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 21.583 | 21.583 (0.972) | 107 | 474370 | 5.00000 | 5.358 | 80.00- 120.00 | 100.00 |
| 21.583 | 21.583 (0.972) | 109 | 441616 | | | 62.69- 122.69 | 93.10 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 93 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 22.233 | 22.233 (1.001) | 112 | 598258 | 5.00000 | 5.045 | 80.00- 120.00 | 100.00 |
| 22.233 | 22.233 (1.001) | 114 | 187899 | | | 1.62- 61.62 | 31.41 |
| 22.233 | 22.233 (1.001) | 77 | 398192 | | | 36.56- 96.56 | 66.56 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 283444 | 5.00000 | 5.326 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 911922 | | | 292.36- 352.36 | 321.73 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 273545 | 5.00000 | 5.212 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 559503 | | | 164.15- 224.15 | 204.54 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.001 | 23.001 (1.036) | 106 | 251991 | 5.00000 | 5.160 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 554192 | | | 186.63- 246.63 | 219.93 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 350011 | 5.00000 | 4.899 | 80.00- 120.00 | 100.00 |
| 23.029 | 23.029 (1.037) | 78 | 193980 | | | 28.70- 88.70 | 55.42 |
| 102 Bromoform | | | | | CAS #: 75-25-2 | | |
| 23.331 | 23.331 (1.051) | 173 | 395782 | 5.00000 | 4.414 | 80.00- 120.00 | 100.00 |
| 23.331 | 23.331 (1.051) | 171 | 203590 | | | 20.40- 80.40 | 51.44 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 712792 | 5.00000 | 4.998 | 80.00- 120.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 193457 | | | 0.00- 57.73 | 27.14 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.832 | 23.832 (1.073) | 83 | 481503 | 5.00000 | 4.396 | 80.00- 120.00 | 100.00 |
| 23.832 | 23.832 (1.073) | 85 | 309764 | | | 34.81- 94.81 | 64.33 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 620905 | 5.00000 | 4.909 | 80.00- 120.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 138755 | | | 0.00- 53.83 | 22.35 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 422229 | 5.00000 | 4.550 | 80.00- 120.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 127957 | | | 0.18- 60.18 | 30.31 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 386412 | 5.00000 | 4.987 | 80.00- 120.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 179858 | | | 20.44- 80.44 | 46.55 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 351827 | 5.00000 | 5.606 | 80.00- 120.00 | 100.00 |

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  120 1,2,4-Trimethylbenzene (continued)
 24.529  24.529 (1.105)   120    156202                   19.27-  79.27    44.40
-------------------------------------------------------------------------------
  122 1,3-Dichlorobenzene                          CAS #: 541-73-1
 24.902  24.902 (1.121)   146    204897 5.00000    3.384  80.00- 120.00   100.00
 24.902  24.902 (1.121)   148    132756                   38.48-  98.48    64.79
 24.902  24.902 (1.121)   111     90055                   10.49-  70.49    43.95
-------------------------------------------------------------------------------
  124 1,4-Dichlorobenzene                          CAS #: 106-46-7
 24.992  24.992 (1.125)   146    179618 5.00000    3.155  80.00- 120.00   100.00
 24.992  24.992 (1.125)   148    119735                   38.92-  98.92    66.66
 24.992  24.992 (1.125)   111     76082                   11.61-  71.61    42.36
-------------------------------------------------------------------------------
  127 alpha-chlorotoluene                          CAS #: 100-44-7
 25.126  25.126 (1.132)    91    202926 5.00000    3.337  80.00- 120.00   100.00
 25.126  25.126 (1.132)   126     41212                    0.00-  52.82    20.31
-------------------------------------------------------------------------------
  128 1,2-Dichlorobenzene                          CAS #: 95-50-1
 25.395  25.395 (1.144)   146    172816 5.00000    3.076  80.00- 120.00   100.00
 25.395  25.395 (1.144)   148    110365                   33.86-  93.86    63.86
 25.395  25.395 (1.144)   111     77780                   15.01-  75.01    45.01
-------------------------------------------------------------------------------
  131 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 27.077  27.077 (1.219)   180    155799 5.00000    3.779  80.00- 120.00   100.00
 27.077  27.077 (1.219)   182    145460                   64.14- 124.14    93.36
-------------------------------------------------------------------------------
  132 Hexachlorobutadiene                          CAS #: 87-68-3
 27.166  27.166 (1.223)   225    105201 5.00000    3.051  80.00- 120.00   100.00
 27.166  27.166 (1.223)   223     67568                   44.27- 104.27    64.23
-------------------------------------------------------------------------------
  133 Naphthalene                                  CAS #: 91-20-3
 27.368  27.368 (1.232)   128     38535 0.50000   0.3947  80.00- 120.00   100.00
 27.368  27.368 (1.232)   127      6327                    0.00-  47.41    16.42
-------------------------------------------------------------------------------
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Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121602.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 16-DEC-2014
Calibration Time: 08:42
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 109722 | 0.00 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 445503 | 0.00 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 361081 | 0.00 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/16Dec2014.b/v121602.d



Date : 16-DEC-2014 08:42

Client ID: CCV

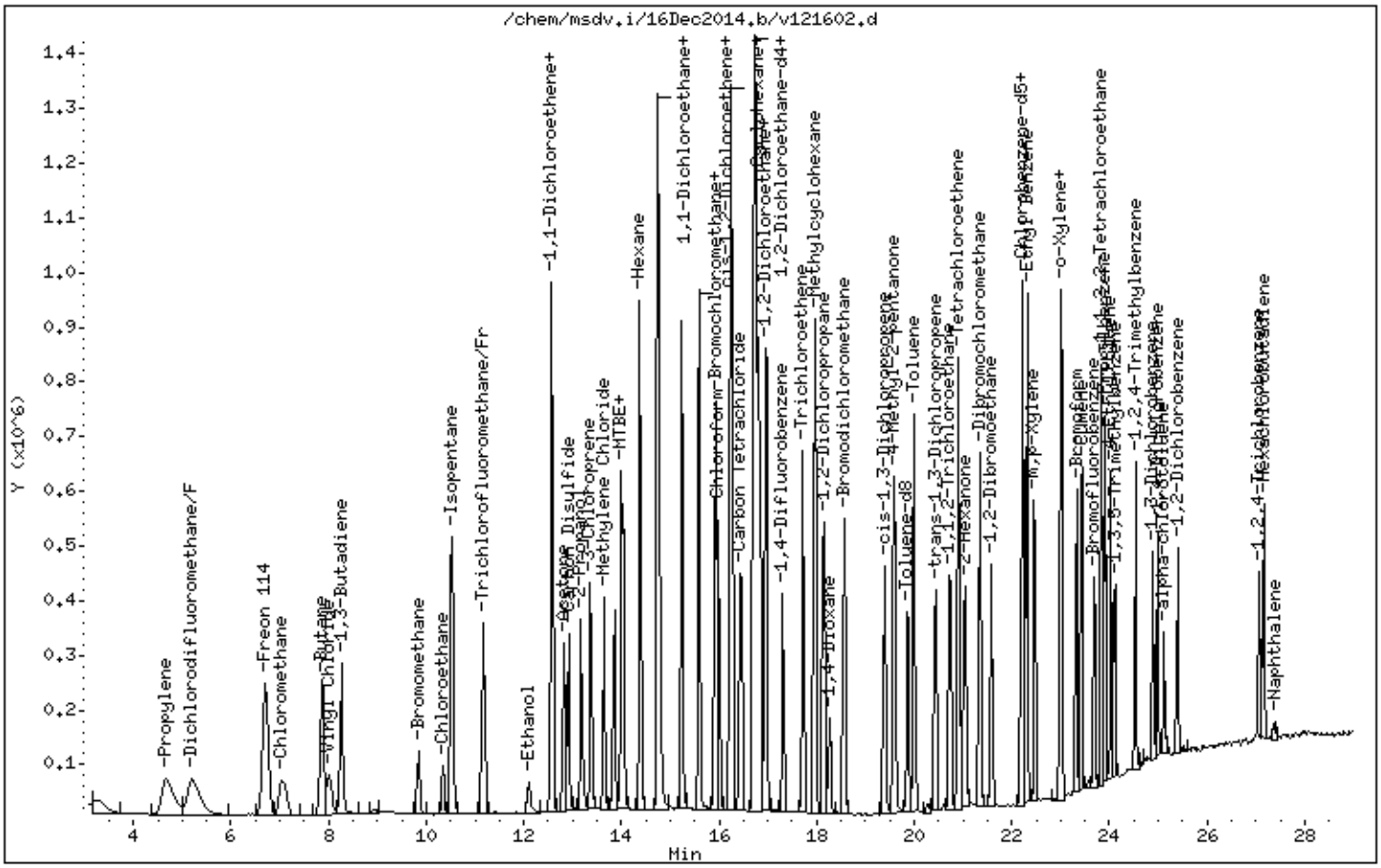
Instrument: msdv.i

Sample Info: 25mL #2687-48

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



eurofins | Air Toxics

**Client Sample ID: LCS**

**Lab ID#: 1412151AR1-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121603** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 09:39 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Freon 12 | 110 | 70-130 |
| Freon 114 | 102 | 70-130 |
| Chloromethane | 110 | 70-130 |
| Vinyl Chloride | 118 | 70-130 |
| 1,3-Butadiene | 108 | 70-130 |
| Bromomethane | 115 | 70-130 |
| Chloroethane | 117 | 70-130 |
| Freon 11 | 104 | 70-130 |
| Ethanol | 149 Q | 70-130 |
| Freon 113 | 101 | 70-130 |
| 1,1-Dichloroethene | 108 | 70-130 |
| Acetone | 110 | 70-130 |
| 2-Propanol | 124 | 70-130 |
| Carbon Disulfide | 111 | 70-130 |
| 3-Chloropropene | 108 | 70-130 |
| Methylene Chloride | 114 | 70-130 |
| Methyl tert-butyl ether | 108 | 70-130 |
| trans-1,2-Dichloroethene | 108 | 70-130 |
| Hexane | 107 | 70-130 |
| 1,1-Dichloroethane | 108 | 70-130 |
| 2-Butanone (Methyl Ethyl Ketone) | 121 | 70-130 |
| cis-1,2-Dichloroethene | 109 | 70-130 |
| Tetrahydrofuran | 112 | 70-130 |
| Chloroform | 107 | 70-130 |
| 1,1,1-Trichloroethane | 102 | 70-130 |
| Cyclohexane | 108 | 70-130 |
| Carbon Tetrachloride | 77 | 70-130 |
| 2,2,4-Trimethylpentane | 106 | 70-130 |
| Benzene | 108 | 70-130 |
| 1,2-Dichloroethane | 102 | 70-130 |
| Heptane | 106 | 70-130 |
| Trichloroethene | 99 | 70-130 |
| 1,2-Dichloropropane | 110 | 70-130 |
| 1,4-Dioxane | 112 | 70-130 |
| Bromodichloromethane | 106 | 70-130 |
| cis-1,3-Dichloropropene | 120 | 70-130 |
| 4-Methyl-2-pentanone | 118 | 70-130 |
| Toluene | 107 | 70-130 |
| trans-1,3-Dichloropropene | 101 | 70-130 |
| 1,1,2-Trichloroethane | 103 | 70-130 |
| Tetrachloroethene | 98 | 70-130 |
| 2-Hexanone | 111 | 70-130 |

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**Client Sample ID: LCS**

**Lab ID#: 1412151AR1-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121603** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 09:39 AM** | |

| **Compound** | **%Recovery** | **Method Limits** |
|---|---|---|
| Dibromochloromethane | 92 | 70-130 |
| 1,2-Dibromoethane (EDB) | 104 | 70-130 |
| Chlorobenzene | 99 | 70-130 |
| Ethyl Benzene | 103 | 70-130 |
| m,p-Xylene | 100 | 70-130 |
| o-Xylene | 106 | 70-130 |
| Styrene | 110 | 70-130 |
| Bromoform | 95 | 70-130 |
| Cumene | 103 | 70-130 |
| 1,1,2,2-Tetrachloroethane | 103 | 70-130 |
| Propylbenzene | 106 | 70-130 |
| 4-Ethyltoluene | 103 | 70-130 |
| 1,3,5-Trimethylbenzene | 125 | 70-130 |
| 1,2,4-Trimethylbenzene | 143 Q | 70-130 |
| 1,3-Dichlorobenzene | 97 | 70-130 |
| 1,4-Dichlorobenzene | 92 | 70-130 |
| alpha-Chlorotoluene | 167 Q | 70-130 |
| 1,2-Dichlorobenzene | 97 | 70-130 |
| 1,2,4-Trichlorobenzene | 116 | 70-130 |
| Hexachlorobutadiene | 88 | 70-130 |
| Naphthalene | 75 | 60-140 |

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 107 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

Report Date: 16-Dec-2014 10:18

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12-Oxy.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0ppbv (50ppbv)

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 4 Dichlorodifluorome | 5.000 | 5.477 | 109.55 | 70-130 |
| 3 Propylene | 5.000 | 5.932 | 118.65 | 60-140 |
| 6 Freon 114 | 5.000 | 5.084 | 101.69 | 70-130 |
| 8 Chloromethane | 5.000 | 5.503 | 110.05 | 70-130 |
| 10 Vinyl Chloride | 5.000 | 5.883 | 117.67 | 70-130 |
| 11 1,3-Butadiene | 5.000 | 5.423 | 108.45 | 70-130 |
| 12 Bromomethane | 5.000 | 5.750 | 115.00 | 70-130 |
| 17 Chloroethane | 5.000 | 5.848 | 116.96 | 70-130 |
| 20 Trichlorofluoromet | 5.000 | 5.176 | 103.51 | 70-130 |
| 24 Ethanol | 5.000 | 7.456 | 149.13* | 70-130 |
| 28 Freon 113 | 5.000 | 5.037 | 100.74 | 70-130 |
| 30 1,1-Dichloroethene | 5.000 | 5.429 | 108.59 | 70-130 |
| 31 Acetone | 5.000 | 5.510 | 110.21 | 70-130 |
| 33 Carbon Disulfide | 5.000 | 5.549 | 110.99 | 70-130 |
| 34 2-Propanol | 5.000 | 6.180 | 123.60 | 70-130 |
| 35 3-Chloroprene | 5.000 | 5.403 | 108.05 | 70-130 |
| 37 Methylene Chloride | 5.000 | 5.677 | 113.55 | 70-130 |
| 39 MTBE | 5.000 | 5.415 | 108.30 | 70-130 |
| 40 trans-1,2-Dichloro | 5.000 | 5.406 | 108.13 | 70-130 |
| 43 Hexane | 5.000 | 5.334 | 106.68 | 70-130 |
| 46 1,1-Dichloroethane | 5.000 | 5.406 | 108.13 | 70-130 |
| 47 Vinyl Acetate | 5.000 | 5.824 | 116.48 | 60-140 |
| 50 cis-1,2-Dichloroet | 5.000 | 5.460 | 109.21 | 70-130 |
| 51 2-Butanone | 5.000 | 6.057 | 121.14 | 70-130 |
| 53 Tetrahydrofuran | 5.000 | 5.628 | 112.56 | 70-130 |
| 55 Chloroform | 5.000 | 5.358 | 107.15 | 70-130 |
| 57 Cyclohexane | 5.000 | 5.406 | 108.12 | 70-130 |
| 58 1,1,1-Trichloroeth | 5.000 | 5.086 | 101.73 | 70-130 |
| 59 Carbon Tetrachlori | 5.000 | 3.870 | 77.40 | 70-130 |
| 63 2,2,4-Trimethylpen | 5.000 | 5.310 | 106.20 | 70-130 |
| 64 Benzene | 5.000 | 5.407 | 108.13 | 70-130 |
| 69 Heptane | 5.000 | 5.315 | 106.30 | 70-130 |
| 68 1,2-Dichloroethane | 5.000 | 5.127 | 102.54 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 72 Trichloroethene | 5.000 | 4.955 | 99.11 | 70-130 |
| 74 1,2-Dichloropropan | 5.000 | 5.478 | 109.56 | 70-130 |
| 75 1,4-Dioxane | 5.000 | 5.604 | 112.08 | 70-130 |
| 77 Bromodichlorometha | 5.000 | 5.285 | 105.70 | 70-130 |
| 78 cis-1,3-Dichloropr | 5.000 | 5.977 | 119.54 | 70-130 |
| 79 4-Methyl-2-pentano | 5.000 | 5.902 | 118.04 | 70-130 |
| 81 Toluene | 5.000 | 5.368 | 107.35 | 70-130 |
| 82 trans-1,3-Dichloro | 5.000 | 5.056 | 101.12 | 70-130 |
| 84 1,1,2-Trichloroeth | 5.000 | 5.138 | 102.75 | 70-130 |
| 87 2-Hexanone | 5.000 | 5.553 | 111.07 | 70-130 |
| 86 Tetrachloroethene | 5.000 | 4.881 | 97.63 | 70-130 |
| 89 Dibromochlorometha | 5.000 | 4.622 | 92.45 | 70-130 |
| 90 1,2-Dibromoethane | 5.000 | 5.208 | 104.16 | 70-130 |
| 93 Chlorobenzene | 5.000 | 4.956 | 99.13 | 70-130 |
| 95 Ethyl Benzene | 5.000 | 5.148 | 102.96 | 70-130 |
| 96 m,p-Xylene | 5.000 | 5.015 | 100.30 | 70-130 |
| 100 o-Xylene | 5.000 | 5.310 | 106.19 | 70-130 |
| 101 Styrene | 5.000 | 5.504 | 110.09 | 70-130 |
| 102 Bromoform | 5.000 | 4.732 | 94.65 | 70-130 |
| 103 Cumene | 5.000 | 5.132 | 102.64 | 70-130 |
| 108 1,1,2,2-Tetrachlor | 5.000 | 5.170 | 103.39 | 70-130 |
| 111 Propylbenzene | 5.000 | 5.284 | 105.67 | 70-130 |
| 113 4-Ethyltoluene | 5.000 | 5.170 | 103.39 | 70-130 |
| 114 1,3,5-Trimethylben | 5.000 | 6.252 | 125.04 | 70-130 |
| 120 1,2,4-Trimethylben | 5.000 | 7.142 | 142.85* | 70-130 |
| 122 1,3-Dichlorobenzen | 5.000 | 4.844 | 96.88 | 70-130 |
| 124 1,4-Dichlorobenzen | 5.000 | 4.587 | 91.74 | 70-130 |
| 127 alpha-chlorotoluen | 5.000 | 8.345 | 166.91* | 70-130 |
| 128 1,2-Dichlorobenzen | 5.000 | 4.838 | 96.75 | 70-130 |
| 131 1,2,4-Trichloroben | 5.000 | 5.816 | 116.33 | 70-130 |
| 132 Hexachlorobutadien | 5.000 | 4.412 | 88.25 | 70-130 |
| 133 Naphthalene | 0.5000 | 0.3766 | 75.31 | 60-140 |
| 18 Isopentane | 5.000 | 5.577 | 111.54 | 60-140 |
| 9 Butane | 5.000 | 5.715 | 114.30 | 60-140 |
| 73 Methylcyclohexane | 5.000 | 5.486 | 109.71 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 5.053 | 101.06 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.353 | 107.05 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 5.056 | 101.12 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121603.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 16-DEC-2014 09:39
Operator : ef Inst ID: msdv.i
Smp Info : 25mL #2677-274
Misc Info : 5.0ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 16-Dec-2014 10:10 efinn Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12-Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.933 | 15.933 (1.000) | 130 | 108561 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 83979 | | | 47.55- 107.55 | 77.36 |
| 15.933 | 15.933 (1.000) | 49 | 282342 | | | 213.64- 273.64 | 260.08 |
| * 71 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 17.305 | 17.305 (1.000) | 114 | 440956 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 75717 | | | 0.00- 46.17 | 17.17 |
| * 92 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 22.205 | 22.205 (1.000) | 117 | 353604 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 228389 | | | 28.56- 88.56 | 64.59 |
| $ 65 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.756 | 16.756 (1.052) | 65 | 201329 | 5.05314 | 5.053 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 110885 | | | 28.37- 88.37 | 55.08 |
| $ 80 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.879 | 19.879 (1.149) | 98 | 453802 | 5.35274 | 5.353 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 57301 | | | 0.00- 41.90 | 12.63 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.856  19.879 (1.147)   100    286631                    34.60-  94.60    63.16
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    153744 5.05579    5.056  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    217006                  113.85- 173.85   141.15
 23.704  23.704 (1.067)   176    147775                    68.89- 128.89    96.12
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.673   4.711 (0.293)    41    361329 5.93256    5.932  80.00- 120.00   100.00
  4.673   4.711 (0.293)    42    234756                    35.18-  95.18    64.97
  4.673   4.711 (0.293)    39    259956                    44.12- 104.12    71.94
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85    557108 5.47744    5.477  80.00- 120.00   100.00
  5.202   5.202 (0.326)    87    177706                     1.57-  61.57    31.90
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.713   6.713 (0.421)   135    369321 5.08454    5.084  80.00- 120.00   100.00
  6.713   6.713 (0.421)   137    117655                     0.53-  60.53    31.86
  6.713   6.713 (0.421)    85    534361                  121.37- 181.37   144.69
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.052   7.052 (0.443)    50    337278 5.50265    5.503  80.00- 120.00   100.00
  7.052   7.052 (0.443)    52    103093                     1.81-  61.81    30.57
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.853   7.884 (0.493)    58     58705 5.71516    5.715  80.00- 120.00   100.00
  7.853   7.884 (0.493)    43    673843                 1065.18-1125.18  1147.84
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62    269090 5.88338    5.883  80.00- 120.00   100.00
  8.009   8.009 (0.503)    64     81732                     0.00-  59.52    30.37
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54    243144 5.42263    5.423  80.00- 120.00   100.00
  8.257   8.257 (0.518)    39    361274                  107.15- 167.15   148.58
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    161232 5.75016    5.750  80.00- 120.00   100.00
  9.834   9.834 (0.617)    96    153558                    60.42- 120.42    95.24
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.340  10.340 (0.649)    64    124305 5.84793    5.848  80.00- 120.00   100.00
 10.340  10.340 (0.649)    66     37440                     0.00-  59.90    30.12
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 244196 | 5.57690 | 5.577 | 80.00- 120.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 516487 | | | 171.32- 231.32 | 211.50 |
| 10.533 | 10.533 (0.661) | 42 | 459158 | | | 150.03- 210.03 | 188.03 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.184 | 11.183 (0.702) | 101 | 541869 | 5.17575 | 5.176 | 80.00- 120.00 | 100.00 |
| 11.184 | 11.183 (0.702) | 103 | 359727 | | | 34.11- 94.11 | 66.39 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.760) | 45 | 165484 | 7.45648 | 7.456 | 80.00- 120.00 | 100.00(R) |
| 12.101 | 12.101 (0.760) | 46 | 63278 | | | 8.51- 68.51 | 38.24 |
| 12.101 | 12.101 (0.760) | 43 | 31445 | | | 0.00- 54.10 | 19.00 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 127026 | 5.42950 | 5.429 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 451790 | | | 320.65- 380.65 | 355.67 |
| 12.568 | 12.568 (0.789) | 96 | 203023 | | | 134.30- 194.30 | 159.83 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 317441 | 5.03710 | 5.037 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 199686 | | | 33.65- 93.65 | 62.91 |
| 12.568 | 12.568 (0.789) | 101 | 422962 | | | 96.37- 156.37 | 133.24 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 141344 | 5.51057 | 5.510 | 80.00- 120.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 638255 | | | 413.15- 473.15 | 451.56 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 552200 | 5.54928 | 5.549 | 80.00- 120.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.365 | 13.365 (0.839) | 76 | 77581 | 5.40260 | 5.403 | 80.00- 120.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 463473 | | | 547.03- 607.03 | 597.40 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 734039 | 6.18014 | 6.180 | 80.00- 120.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 145018 | | | 0.00- 50.74 | 19.76 |
| 13.173 | 13.173 (0.827) | 59 | 22174 | | | 0.00- 32.83 | 3.02 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 187380 | 5.67745 | 5.677 | 80.00- 120.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 454113 | | | 212.37- 272.37 | 242.35 |
| 13.640 | 13.640 (0.856) | 51 | 131026 | | | 43.31- 103.31 | 69.93 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.997 | 13.996 (0.878) | 73 | 641224 | 5.41521 | 5.415 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 39 MTBE (continued) | | | | | | | |
| 13.997 | 13.996 (0.878) | 57 | 201070 | | | 2.99- 62.99 | 31.36 |
| 13.997 | 13.996 (0.878) | 41 | 274341 | | | 12.12- 72.12 | 42.78 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 119678 | 5.40651 | 5.406 | 80.00- 120.00 | 100.00 |
| 14.051 | 14.051 (0.882) | 61 | 364111 | | | 293.73- 353.73 | 304.24 |
| 14.051 | 14.051 (0.882) | 96 | 191992 | | | 146.88- 206.88 | 160.42 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 505413 | 5.33416 | 5.334 | 80.00- 120.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 462362 | | | 57.65- 117.65 | 91.48 |
| 14.381 | 14.381 (0.903) | 86 | 56790 | | | 0.00- 40.67 | 11.24 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 497111 | 5.40648 | 5.406 | 80.00- 120.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 151198 | | | 0.37- 60.37 | 30.42 |
| 47 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.793 | 14.793 (0.928) | 86 | 54658 | 5.82379 | 5.824 | 80.00- 120.00 | 100.00 |
| 14.793 | 14.793 (0.928) | 42 | 95110 | | | 220.92- 280.92 | 174.01 |
| 14.793 | 14.793 (0.928) | 43 | 1167492 | | | 3282.47-3342.47 | 2135.98 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 160404 | 5.46057 | 5.460 | 80.00- 120.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 61 | 440369 | | | 248.69- 308.69 | 274.54 |
| 15.592 | 15.592 (0.979) | 96 | 256870 | | | 126.98- 186.98 | 160.14 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.571 (0.979) | 72 | 115638 | 6.05711 | 6.057 | 80.00- 120.00 | 100.00 |
| 15.592 | 15.571 (0.979) | 43 | 888824 | | | 794.80- 854.80 | 768.63 |
| 15.571 | 15.571 (0.977) | 57 | 51035 | | | 18.01- 78.01 | 44.13 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 553685 | 5.62806 | 5.628 | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 107037 | | | 0.00- 49.03 | 19.33 |
| 15.933 | 15.933 (1.000) | 72 | 117980 | | | 0.00- 51.35 | 21.31 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 490161 | 5.35769 | 5.358 | 80.00- 120.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 310499 | | | 33.33- 93.33 | 63.35 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.242 | 16.242 (1.019) | 84 | 311074 | 5.40622 | 5.406 | 80.00- 120.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 56 | 565968 | | | 157.43- 217.43 | 181.94 |
| 16.242 | 16.242 (1.019) | 41 | 441708 | | | 105.99- 165.99 | 141.99 |

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   58 1,1,1-Trichloroethane                        CAS #: 71-55-6
 16.242  16.242 (1.019)    97    485904 5.08627    5.086  80.00- 120.00   100.00
 16.242  16.242 (1.019)    99    310203                   32.16-  92.16    63.84
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                         CAS #: 56-23-5
 16.457  16.457 (1.033)   119    354626 3.86987    3.870  80.00- 120.00   100.00
 16.457  16.457 (1.033)   117    362794                   69.67- 129.67   102.30
                   Sum of Peak Concentrations =    3.870
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.728  16.728 (1.050)    56    532435 5.30985    5.310  80.00- 120.00   100.00
 16.728  16.728 (1.050)    57   1612398                  258.69- 318.69   302.83
 16.728  16.728 (1.050)    41    593364                   79.91- 139.91   111.44
-------------------------------------------------------------------------------
   64 Benzene                                      CAS #: 71-43-2
 16.756  16.756 (0.968)    78    703551 5.40660    5.407  80.00- 120.00   100.00
 16.756  16.756 (0.968)    77    169379                    0.00-  53.73    24.07
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                           CAS #: 107-06-2
 16.865  16.865 (0.975)    62    404307 5.12686    5.127  80.00- 120.00   100.00
 16.865  16.865 (0.975)    64    123221                    1.11-  61.11    30.48
-------------------------------------------------------------------------------
   69 Heptane                                      CAS #: 142-82-5
 16.948  16.948 (0.979)    57    298074 5.31478    5.315  80.00- 120.00   100.00
 16.975  16.948 (0.981)   100     63562                    0.00-  51.27    21.32
 16.948  16.948 (0.979)    43    805864                  235.24- 295.24   270.36
-------------------------------------------------------------------------------
   72 Trichloroethene                              CAS #: 79-01-6
 17.716  17.716 (1.024)   130    290281 4.95545    4.955  80.00- 120.00   100.00
 17.716  17.716 (1.024)    95    308677                   71.16- 131.16   106.34
 17.716  17.716 (1.024)    97    199535                   33.04-  93.04    68.74
-------------------------------------------------------------------------------
   73 Methylcyclohexane                            CAS #: 108-87-2
 17.964  17.964 (1.038)    83    421990 5.48575    5.486  80.00- 120.00   100.00
 17.964  17.964 (1.038)    98    184197                   15.02-  75.02    43.65
 17.964  17.964 (1.038)    55    519413                   95.64- 155.64   123.09
-------------------------------------------------------------------------------
   74 1,2-Dichloropropane                          CAS #: 78-87-5
 18.156  18.156 (1.049)    63    326990 5.47786    5.478  80.00- 120.00   100.00
 18.156  18.156 (1.049)    62    236327                   45.17- 105.17    72.27
 18.156  18.156 (1.049)    41    293475                   61.13- 121.13    89.75
-------------------------------------------------------------------------------
   75 1,4-Dioxane                                  CAS #: 123-91-1
 18.266  18.266 (1.056)    88    168120 5.60408    5.604  80.00- 120.00   100.00
 18.266  18.266 (1.056)    58    165297                   72.13- 132.13    98.32
 18.266  18.266 (1.056)    57     58786                    4.41-  64.41    34.97
-------------------------------------------------------------------------------
```

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 522291 | 5.28502 | 5.285 | 80.00- 120.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 330473 | | | 32.12- 92.12 | 63.27 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.386 | 19.386 (1.120) | 75 | 403686 | 5.97686 | 5.977 | 80.00- 120.00 | 100.00 |
| 19.386 | 19.386 (1.120) | 77 | 125149 | | | 1.25- 61.25 | 31.00 |
| 19.386 | 19.386 (1.120) | 39 | 419560 | | | 72.10- 132.10 | 103.93 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 1084029 | 5.90185 | 5.902 | 80.00- 120.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 288546 | | | 0.00- 57.24 | 26.62 |
| 19.587 | 19.587 (1.132) | 85 | 90218 | | | 0.00- 38.20 | 8.32 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 771000 | 5.36764 | 5.368 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 443643 | | | 28.60- 88.60 | 57.54 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 368531 | 5.05613 | 5.056 | 80.00- 120.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 121621 | | | 5.48- 65.48 | 33.00 |
| 20.435 | 20.435 (0.920) | 39 | 365133 | | | 67.43- 127.43 | 99.08 |
| 84 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.757 | 20.757 (0.935) | 97 | 285957 | 5.13760 | 5.138 | 80.00- 120.00 | 100.00 |
| 20.757 | 20.757 (0.935) | 99 | 174887 | | | 32.13- 92.13 | 61.16 |
| 20.757 | 20.757 (0.935) | 83 | 256262 | | | 58.79- 118.79 | 89.62 |
| 86 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.901 | 20.901 (0.941) | 166 | 351267 | 4.88129 | 4.881 | 80.00- 120.00 | 100.00 |
| 20.901 | 20.901 (0.941) | 129 | 282590 | | | 47.04- 107.04 | 80.45 |
| 20.901 | 20.901 (0.941) | 131 | 271409 | | | 46.95- 106.95 | 77.27 |
| 87 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 21.044 | 21.044 (0.948) | 58 | 346123 | 5.55327 | 5.553 | 80.00- 120.00 | 100.00 |
| 21.044 | 21.044 (0.948) | 43 | 929869 | | | 242.48- 302.48 | 268.65 |
| 21.044 | 21.044 (0.948) | 100 | 48777 | | | 0.00- 43.88 | 14.09 |
| 89 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 21.367 | 21.367 (0.962) | 129 | 478846 | 4.62234 | 4.622 | 80.00- 120.00 | 100.00 |
| 21.367 | 21.367 (0.962) | 127 | 374577 | | | 50.38- 110.38 | 78.23 |
| 90 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 21.583 | 21.583 (0.972) | 107 | 451574 | 5.20793 | 5.208 | 80.00- 120.00 | 100.00 |
| 21.583 | 21.583 (0.972) | 109 | 413363 | | | 62.69- 122.69 | 91.54 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 93 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 22.233 | 22.233 (1.001) | 112 | 575542 | 4.95641 | 4.956 | 80.00- 120.00 | 100.00 |
| 22.233 | 22.233 (1.001) | 114 | 186159 | | | 1.62- 61.62 | 32.35 |
| 22.233 | 22.233 (1.001) | 77 | 381232 | | | 36.56- 96.56 | 66.24 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 268318 | 5.14817 | 5.148 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 864873 | | | 292.36- 352.36 | 322.33 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.452 | 22.452 (1.011) | 106 | 257722 | 5.01476 | 5.015 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 548900 | | | 164.15- 224.15 | 212.98 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.001 | 23.001 (1.036) | 106 | 253914 | 5.30954 | 5.310 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 549066 | | | 186.63- 246.63 | 216.24 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 385110 | 5.50451 | 5.504 | 80.00- 120.00 | 100.00 |
| 23.029 | 23.029 (1.037) | 78 | 205104 | | | 28.70- 88.70 | 53.26 |
| 102 Bromoform | | | | | CAS #: 75-25-2 | | |
| 23.331 | 23.331 (1.051) | 173 | 415525 | 4.73248 | 4.732 | 80.00- 120.00 | 100.00 |
| 23.331 | 23.331 (1.051) | 171 | 210582 | | | 20.40- 80.40 | 50.68 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 716714 | 5.13222 | 5.132 | 80.00- 120.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 194781 | | | 0.00- 57.73 | 27.18 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.832 (1.073) | 83 | 554588 | 5.16974 | 5.170 | 80.00- 120.00 | 100.00 |
| 23.833 | 23.832 (1.073) | 85 | 356104 | | | 34.81- 94.81 | 64.21 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 654488 | 5.28363 | 5.284 | 80.00- 120.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 143352 | | | 0.00- 53.83 | 21.90 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 469785 | 5.16960 | 5.170 | 80.00- 120.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 143462 | | | 0.18- 60.18 | 30.54 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 474389 | 6.25220 | 6.252 | 80.00- 120.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 216026 | | | 20.44- 80.44 | 45.54 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 438921 | 7.14235 | 7.142 | 80.00- 120.00 | 100.00(R) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 120 1,2,4-Trimethylbenzene (continued) | | | | | | | |
| 24.529 | 24.529 (1.105) | 120 | 195518 | | | 19.27- 79.27 | 44.55 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 287239 | 4.84411 | 4.844 | 80.00- 120.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 183972 | | | 38.48- 98.48 | 64.05 |
| 24.902 | 24.902 (1.121) | 111 | 121857 | | | 10.49- 70.49 | 42.42 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 255691 | 4.58683 | 4.587 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 165132 | | | 38.92- 98.92 | 64.58 |
| 24.992 | 24.992 (1.125) | 111 | 107969 | | | 11.61- 71.61 | 42.23 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.126 | 25.126 (1.132) | 91 | 497047 | 8.34549 | 8.345 | 80.00- 120.00 | 100.00(R) |
| 25.126 | 25.126 (1.132) | 126 | 92591 | | | 0.00- 52.82 | 18.63 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.395 | 25.395 (1.144) | 146 | 266149 | 4.83759 | 4.838 | 80.00- 120.00 | 100.00 |
| 25.395 | 25.395 (1.144) | 148 | 166958 | | | 33.86- 93.86 | 62.73 |
| 25.395 | 25.395 (1.144) | 111 | 116265 | | | 15.01- 75.01 | 43.68 |
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 234834 | 5.81634 | 5.816 | 80.00- 120.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 233179 | | | 64.14- 124.14 | 99.30 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.166 | 27.166 (1.223) | 225 | 148999 | 4.41248 | 4.412 | 80.00- 120.00 | 100.00 |
| 27.166 | 27.166 (1.223) | 223 | 93341 | | | 44.27- 104.27 | 62.65 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.368 (1.234) | 128 | 36005 | 0.37656 | 0.3766 | 80.00- 120.00 | 100.00 |
| 27.391 | 27.368 (1.234) | 127 | 6502 | | | 0.00- 47.41 | 18.06 |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121603.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 16-DEC-2014
Calibration Time: 08:42
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 108561 | -1.06 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 440956 | -1.02 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 353604 | -2.07 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/16Dec2014.b/v121603.d



Date : 16-DEC-2014 09:39

Client ID: LCS

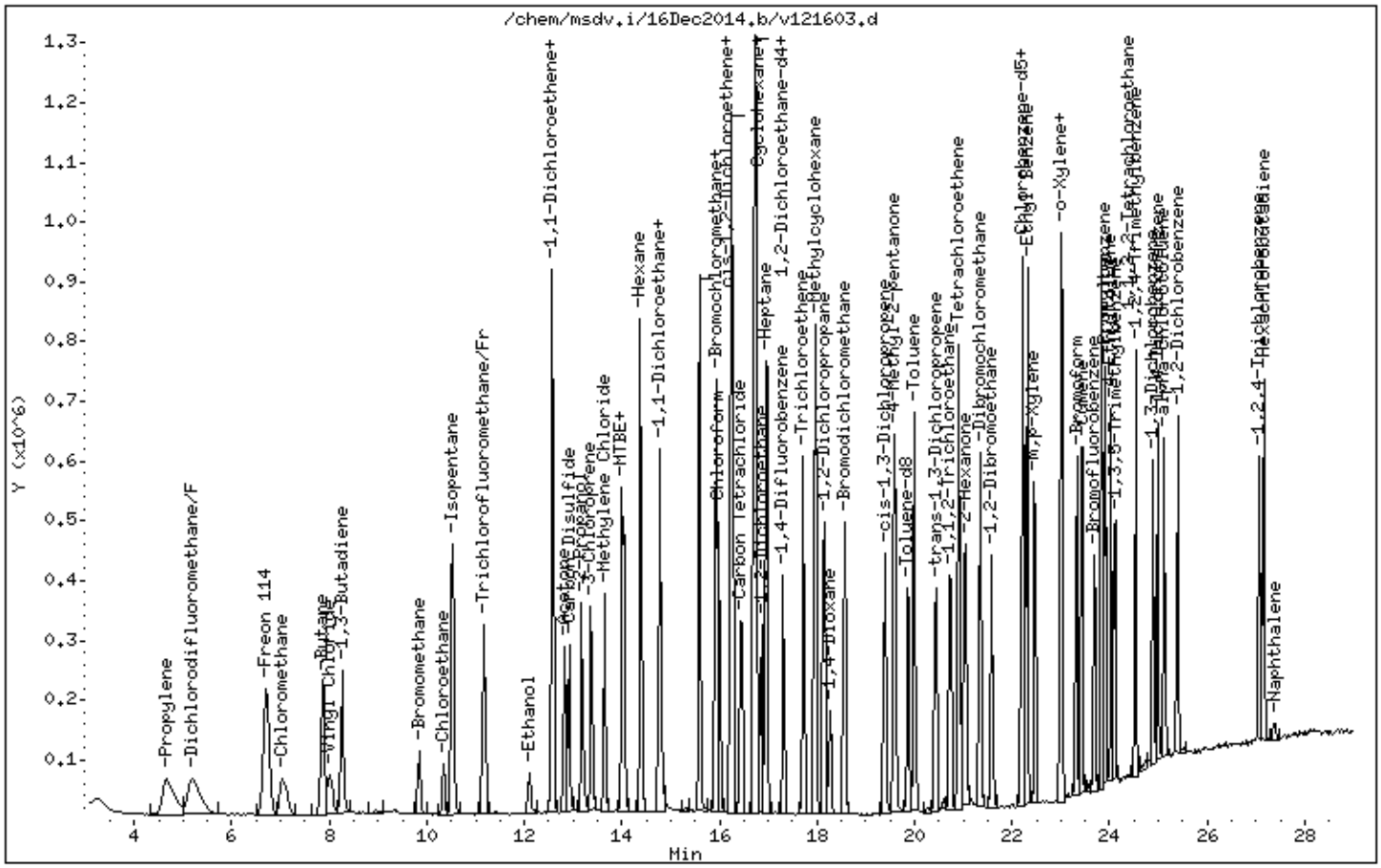
Instrument: msdv.i

Sample Info: 25mL #2677-274

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



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**Client Sample ID: LCSD**

**Lab ID#: 1412151AR1-08AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121604** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 10:21 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Freon 12 | 108 | 70-130 |
| Freon 114 | 100 | 70-130 |
| Chloromethane | 107 | 70-130 |
| Vinyl Chloride | 115 | 70-130 |
| 1,3-Butadiene | 113 | 70-130 |
| Bromomethane | 111 | 70-130 |
| Chloroethane | 117 | 70-130 |
| Freon 11 | 104 | 70-130 |
| Ethanol | 152 Q | 70-130 |
| Freon 113 | 102 | 70-130 |
| 1,1-Dichloroethene | 109 | 70-130 |
| Acetone | 112 | 70-130 |
| 2-Propanol | 126 | 70-130 |
| Carbon Disulfide | 110 | 70-130 |
| 3-Chloropropene | 107 | 70-130 |
| Methylene Chloride | 114 | 70-130 |
| Methyl tert-butyl ether | 110 | 70-130 |
| trans-1,2-Dichloroethene | 106 | 70-130 |
| Hexane | 108 | 70-130 |
| 1,1-Dichloroethane | 107 | 70-130 |
| 2-Butanone (Methyl Ethyl Ketone) | 111 | 70-130 |
| cis-1,2-Dichloroethene | 109 | 70-130 |
| Tetrahydrofuran | 111 | 70-130 |
| Chloroform | 105 | 70-130 |
| 1,1,1-Trichloroethane | 102 | 70-130 |
| Cyclohexane | 104 | 70-130 |
| Carbon Tetrachloride | 77 | 70-130 |
| 2,2,4-Trimethylpentane | 102 | 70-130 |
| Benzene | 110 | 70-130 |
| 1,2-Dichloroethane | 102 | 70-130 |
| Heptane | 107 | 70-130 |
| Trichloroethene | 101 | 70-130 |
| 1,2-Dichloropropane | 110 | 70-130 |
| 1,4-Dioxane | 112 | 70-130 |
| Bromodichloromethane | 105 | 70-130 |
| cis-1,3-Dichloropropene | 122 | 70-130 |
| 4-Methyl-2-pentanone | 118 | 70-130 |
| Toluene | 109 | 70-130 |
| trans-1,3-Dichloropropene | 101 | 70-130 |
| 1,1,2-Trichloroethane | 103 | 70-130 |
| Tetrachloroethene | 97 | 70-130 |
| 2-Hexanone | 110 | 70-130 |

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**Client Sample ID: LCSD**

**Lab ID#: 1412151AR1-08AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v121604** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 12/16/14 10:21 AM** | |

| **Compound** | **%Recovery** | **Method Limits** |
|---|---|---|
| Dibromochloromethane | 95 | 70-130 |
| 1,2-Dibromoethane (EDB) | 103 | 70-130 |
| Chlorobenzene | 98 | 70-130 |
| Ethyl Benzene | 102 | 70-130 |
| m,p-Xylene | 100 | 70-130 |
| o-Xylene | 104 | 70-130 |
| Styrene | 108 | 70-130 |
| Bromoform | 93 | 70-130 |
| Cumene | 104 | 70-130 |
| 1,1,2,2-Tetrachloroethane | 101 | 70-130 |
| Propylbenzene | 106 | 70-130 |
| 4-Ethyltoluene | 102 | 70-130 |
| 1,3,5-Trimethylbenzene | 126 | 70-130 |
| 1,2,4-Trimethylbenzene | 142 Q | 70-130 |
| 1,3-Dichlorobenzene | 95 | 70-130 |
| 1,4-Dichlorobenzene | 89 | 70-130 |
| alpha-Chlorotoluene | 159 Q | 70-130 |
| 1,2-Dichlorobenzene | 96 | 70-130 |
| 1,2,4-Trichlorobenzene | 117 | 70-130 |
| Hexachlorobutadiene | 88 | 70-130 |
| Naphthalene | 75 | 60-140 |

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 106 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Report Date: 16-Dec-2014 11:00

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16Dec2014
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT12.spk
Quant Type: ISTD
Sublist File: AT12-Oxy.sub
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0ppbv (50ppbv)

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 4 Dichlorodifluorome | 5.000 | 5.396 | 107.93 | 70-130 |
| 3 Propylene | 5.000 | 5.765 | 115.31 | 60-140 |
| 6 Freon 114 | 5.000 | 4.990 | 99.80 | 70-130 |
| 8 Chloromethane | 5.000 | 5.331 | 106.61 | 70-130 |
| 10 Vinyl Chloride | 5.000 | 5.748 | 114.95 | 70-130 |
| 11 1,3-Butadiene | 5.000 | 5.660 | 113.20 | 70-130 |
| 12 Bromomethane | 5.000 | 5.542 | 110.84 | 70-130 |
| 17 Chloroethane | 5.000 | 5.860 | 117.21 | 70-130 |
| 20 Trichlorofluoromet | 5.000 | 5.194 | 103.89 | 70-130 |
| 24 Ethanol | 5.000 | 7.609 | 152.18* | 70-130 |
| 28 Freon 113 | 5.000 | 5.094 | 101.87 | 70-130 |
| 30 1,1-Dichloroethene | 5.000 | 5.464 | 109.29 | 70-130 |
| 31 Acetone | 5.000 | 5.582 | 111.64 | 70-130 |
| 33 Carbon Disulfide | 5.000 | 5.528 | 110.57 | 70-130 |
| 34 2-Propanol | 5.000 | 6.311 | 126.23 | 70-130 |
| 35 3-Chloroprene | 5.000 | 5.356 | 107.12 | 70-130 |
| 37 Methylene Chloride | 5.000 | 5.718 | 114.37 | 70-130 |
| 39 MTBE | 5.000 | 5.488 | 109.76 | 70-130 |
| 40 trans-1,2-Dichloro | 5.000 | 5.317 | 106.34 | 70-130 |
| 43 Hexane | 5.000 | 5.412 | 108.24 | 70-130 |
| 46 1,1-Dichloroethane | 5.000 | 5.349 | 106.97 | 70-130 |
| 47 Vinyl Acetate | 5.000 | 5.591 | 111.82 | 60-140 |
| 50 cis-1,2-Dichloroet | 5.000 | 5.470 | 109.40 | 70-130 |
| 51 2-Butanone | 5.000 | 5.539 | 110.79 | 70-130 |
| 53 Tetrahydrofuran | 5.000 | 5.537 | 110.74 | 70-130 |
| 55 Chloroform | 5.000 | 5.274 | 105.49 | 70-130 |
| 57 Cyclohexane | 5.000 | 5.221 | 104.42 | 70-130 |
| 58 1,1,1-Trichloroeth | 5.000 | 5.105 | 102.09 | 70-130 |
| 59 Carbon Tetrachlori | 5.000 | 3.839 | 76.77 | 70-130 |
| 63 2,2,4-Trimethylpen | 5.000 | 5.114 | 102.28 | 70-130 |
| 64 Benzene | 5.000 | 5.496 | 109.93 | 70-130 |
| 69 Heptane | 5.000 | 5.354 | 107.07 | 70-130 |
| 68 1,2-Dichloroethane | 5.000 | 5.110 | 102.20 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 72 Trichloroethene | 5.000 | 5.051 | 101.03 | 70-130 |
| 74 1,2-Dichloropropan | 5.000 | 5.518 | 110.35 | 70-130 |
| 75 1,4-Dioxane | 5.000 | 5.590 | 111.81 | 70-130 |
| 77 Bromodichlorometha | 5.000 | 5.239 | 104.78 | 70-130 |
| 78 cis-1,3-Dichloropr | 5.000 | 6.108 | 122.16 | 70-130 |
| 79 4-Methyl-2-pentano | 5.000 | 5.911 | 118.22 | 70-130 |
| 81 Toluene | 5.000 | 5.469 | 109.38 | 70-130 |
| 82 trans-1,3-Dichloro | 5.000 | 5.049 | 100.98 | 70-130 |
| 84 1,1,2-Trichloroeth | 5.000 | 5.174 | 103.49 | 70-130 |
| 87 2-Hexanone | 5.000 | 5.482 | 109.64 | 70-130 |
| 86 Tetrachloroethene | 5.000 | 4.869 | 97.38 | 70-130 |
| 89 Dibromochlorometha | 5.000 | 4.771 | 95.42 | 70-130 |
| 90 1,2-Dibromoethane | 5.000 | 5.152 | 103.03 | 70-130 |
| 93 Chlorobenzene | 5.000 | 4.922 | 98.44 | 70-130 |
| 95 Ethyl Benzene | 5.000 | 5.105 | 102.09 | 70-130 |
| 96 m,p-Xylene | 5.000 | 5.016 | 100.33 | 70-130 |
| 100 o-Xylene | 5.000 | 5.184 | 103.68 | 70-130 |
| 101 Styrene | 5.000 | 5.388 | 107.75 | 70-130 |
| 102 Bromoform | 5.000 | 4.654 | 93.09 | 70-130 |
| 103 Cumene | 5.000 | 5.209 | 104.18 | 70-130 |
| 108 1,1,2,2-Tetrachlor | 5.000 | 5.039 | 100.77 | 70-130 |
| 111 Propylbenzene | 5.000 | 5.291 | 105.82 | 70-130 |
| 113 4-Ethyltoluene | 5.000 | 5.086 | 101.71 | 70-130 |
| 114 1,3,5-Trimethylben | 5.000 | 6.315 | 126.31 | 70-130 |
| 120 1,2,4-Trimethylben | 5.000 | 7.124 | 142.48* | 70-130 |
| 122 1,3-Dichlorobenzen | 5.000 | 4.774 | 95.49 | 70-130 |
| 124 1,4-Dichlorobenzen | 5.000 | 4.439 | 88.79 | 70-130 |
| 127 alpha-chlorotoluen | 5.000 | 7.964 | 159.28* | 70-130 |
| 128 1,2-Dichlorobenzen | 5.000 | 4.811 | 96.22 | 70-130 |
| 131 1,2,4-Trichloroben | 5.000 | 5.849 | 116.98 | 70-130 |
| 132 Hexachlorobutadien | 5.000 | 4.387 | 87.75 | 70-130 |
| 133 Naphthalene | 0.5000 | 0.3736 | 74.71 | 60-140 |
| 18 Isopentane | 5.000 | 5.464 | 109.27 | 60-140 |
| 9 Butane | 5.000 | 5.660 | 113.20 | 60-140 |
| 73 Methylcyclohexane | 5.000 | 5.470 | 109.41 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 65 1,2-Dichloroethane | 5.000 | 4.954 | 99.08 | 70-130 |
| $ 80 Toluene-d8 | 5.000 | 5.299 | 105.99 | 70-130 |
| $ 106 Bromofluorobenzene | 5.000 | 4.906 | 98.12 | 70-130 |

Eurofins Air Toxics Inc.

TO15/Modified TO-14A

Data file : /chem/msdv.i/16Dec2014.b/v121604.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 16-DEC-2014 10:21
Operator : ef Inst ID: msdv.i
Smp Info : 25mL #2677-274
Misc Info : 5.0ppbv (50ppbv)
Comment : Low Level GC-MS
Method : /chem/msdv.i/16Dec2014.b/v14l1006d.m
Meth Date : 16-Dec-2014 10:10 efinn Quant Type: ISTD
Cal Date : 03-NOV-2014 11:17 Cal File: v110307.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12-Oxy.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| * 54 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.933 | 15.933 (1.000) | 130 | 110022 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 128 | 83865 | | | 47.55- 107.55 | 76.23 |
| 15.933 | 15.933 (1.000) | 49 | 275878 | | | 213.64- 273.64 | 250.75 |
| * 71 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 17.305 | 17.305 (1.000) | 114 | 437786 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 17.305 | 17.305 (1.000) | 88 | 73613 | | | 0.00- 46.17 | 16.81 |
| * 92 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 22.205 | 22.205 (1.000) | 117 | 352217 | 5.00000 | | 80.00- 120.00 | 100.00 |
| 22.205 | 22.205 (1.000) | 82 | 225479 | | | 28.56- 88.56 | 64.02 |
| $ 65 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.756 | 16.756 (1.052) | 65 | 200038 | 4.95407 | 4.954 | 80.00- 120.00 | 100.00 |
| 16.756 | 16.756 (1.052) | 67 | 109633 | | | 28.37- 88.37 | 54.81 |
| $ 80 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.856 | 19.879 (1.147) | 98 | 446047 | 5.29936 | 5.299 | 80.00- 120.00 | 100.00 |
| 19.856 | 19.879 (1.147) | 70 | 54313 | | | 0.00- 41.90 | 12.18 |

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  80 Toluene-d8 (continued)
 19.879  19.879 (1.149)   100    282792                    34.60-  94.60    63.40
-------------------------------------------------------------------------------
$ 106 Bromofluorobenzene                            CAS #: 460-00-4
 23.704  23.704 (1.067)   174    148599 4.90582    4.906  80.00- 120.00   100.00
 23.678  23.704 (1.066)    95    212691                  113.85- 173.85   143.13
 23.704  23.704 (1.067)   176    145003                    68.89- 128.89    97.58
-------------------------------------------------------------------------------
    3 Propylene                                     CAS #: 115-07-1
  4.673   4.711 (0.293)    41    355876 5.76544    5.765  80.00- 120.00   100.00
  4.673   4.711 (0.293)    42    228647                    35.18-  95.18    64.25
  4.673   4.711 (0.293)    39    254185                    44.12- 104.12    71.43
-------------------------------------------------------------------------------
    4 Dichlorodifluoromethane/Fr12                  CAS #: 75-71-8
  5.202   5.202 (0.326)    85    556264 5.39652    5.396  80.00- 120.00   100.00
  5.202   5.202 (0.326)    87    174357                     1.57-  61.57    31.34
-------------------------------------------------------------------------------
    6 Freon 114                                     CAS #: 76-14-2
  6.750   6.713 (0.424)   135    367336 4.99006    4.990  80.00- 120.00   100.00
  6.713   6.713 (0.421)   137    119048                     0.53-  60.53    32.41
  6.713   6.713 (0.421)    85    537620                  121.37- 181.37   146.36
-------------------------------------------------------------------------------
    8 Chloromethane                                 CAS #: 74-87-3
  7.052   7.052 (0.443)    50    331136 5.33069    5.331  80.00- 120.00   100.00
  7.052   7.052 (0.443)    52    104025                     1.81-  61.81    31.41
-------------------------------------------------------------------------------
    9 Butane                                        CAS #: 106-97-8
  7.885   7.884 (0.495)    58     58919 5.65982    5.660  80.00- 120.00   100.00
  7.854   7.884 (0.493)    43    687600                 1065.18-1125.18  1167.02
-------------------------------------------------------------------------------
   10 Vinyl Chloride                                CAS #: 75-01-4
  8.009   8.009 (0.503)    62    266418 5.74761    5.748  80.00- 120.00   100.00
  8.009   8.009 (0.503)    64     79315                     0.00-  59.52    29.77
-------------------------------------------------------------------------------
   11 1,3-Butadiene                                 CAS #: 106-99-0
  8.257   8.257 (0.518)    54    257213 5.66021    5.660  80.00- 120.00   100.00
  8.257   8.257 (0.518)    39    356549                  107.15- 167.15   138.62
-------------------------------------------------------------------------------
   12 Bromomethane                                  CAS #: 74-83-9
  9.834   9.834 (0.617)    94    157485 5.54194    5.542  80.00- 120.00   100.00
  9.834   9.834 (0.617)    96    151661                    60.42- 120.42    96.30
-------------------------------------------------------------------------------
   17 Chloroethane                                  CAS #: 75-00-3
 10.340  10.340 (0.649)    64    126250 5.86056    5.860  80.00- 120.00   100.00
 10.340  10.340 (0.649)    66     37090                     0.00-  59.90    29.38
-------------------------------------------------------------------------------
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| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 18 Isopentane | | | | | CAS #: 78-78-4 | | |
| 10.533 | 10.533 (0.661) | 57 | 242453 | 5.46356 | 5.464 | 80.00- 120.00 | 100.00 |
| 10.533 | 10.533 (0.661) | 43 | 525041 | | | 171.32- 231.32 | 216.55 |
| 10.533 | 10.533 (0.661) | 42 | 467009 | | | 150.03- 210.03 | 192.62 |
| 20 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 11.184 | 11.183 (0.702) | 101 | 551160 | 5.19459 | 5.194 | 80.00- 120.00 | 100.00 |
| 11.184 | 11.183 (0.702) | 103 | 357467 | | | 34.11- 94.11 | 64.86 |
| 24 Ethanol | | | | | CAS #: 64-17-5 | | |
| 12.101 | 12.101 (0.759) | 45 | 171145 | 7.60913 | 7.609 | 80.00- 120.00 | 100.00(R) |
| 12.101 | 12.101 (0.759) | 46 | 65960 | | | 8.51- 68.51 | 38.54 |
| 12.101 | 12.101 (0.759) | 43 | 36948 | | | 0.00- 54.10 | 21.59 |
| 30 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 12.568 | 12.568 (0.789) | 98 | 129564 | 5.46443 | 5.464 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 61 | 453641 | | | 320.65- 380.65 | 350.13 |
| 12.568 | 12.568 (0.789) | 96 | 212158 | | | 134.30- 194.30 | 163.75 |
| 28 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 12.568 | 12.568 (0.789) | 151 | 325318 | 5.09355 | 5.094 | 80.00- 120.00 | 100.00 |
| 12.568 | 12.568 (0.789) | 153 | 204268 | | | 33.65- 93.65 | 62.79 |
| 12.568 | 12.568 (0.789) | 101 | 427734 | | | 96.37- 156.37 | 131.48 |
| 31 Acetone | | | | | CAS #: 67-64-1 | | |
| 12.816 | 12.816 (0.804) | 58 | 145105 | 5.58206 | 5.582 | 80.00- 120.00 | 100.00 |
| 12.816 | 12.816 (0.804) | 43 | 632492 | | | 413.15- 473.15 | 435.89 |
| 33 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 12.925 | 12.925 (0.811) | 76 | 557523 | 5.52838 | 5.528 | 80.00- 120.00 | 100.00 |
| 35 3-Chloroprene | | | | | CAS #: 107-05-1 | | |
| 13.365 | 13.365 (0.839) | 76 | 77948 | 5.35612 | 5.356 | 80.00- 120.00 | 100.00 |
| 13.365 | 13.365 (0.839) | 41 | 471588 | | | 547.03- 607.03 | 605.00 |
| 34 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 13.173 | 13.173 (0.827) | 45 | 759728 | 6.31148 | 6.311 | 80.00- 120.00 | 100.00 |
| 13.173 | 13.173 (0.827) | 43 | 147974 | | | 0.00- 50.74 | 19.48 |
| 13.173 | 13.173 (0.827) | 59 | 21236 | | | 0.00- 32.83 | 2.80 |
| 37 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 13.640 | 13.640 (0.856) | 84 | 191274 | 5.71848 | 5.718 | 80.00- 120.00 | 100.00 |
| 13.640 | 13.640 (0.856) | 49 | 451223 | | | 212.37- 272.37 | 235.90 |
| 13.640 | 13.640 (0.856) | 51 | 133407 | | | 43.31- 103.31 | 69.75 |
| 39 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.997 | 13.996 (0.878) | 73 | 658617 | 5.48824 | 5.488 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 39 MTBE (continued) | | | | | | | |
| 13.997 | 13.996 (0.878) | 57 | 205017 | | | 2.99- 62.99 | 31.13 |
| 13.997 | 13.996 (0.878) | 41 | 277340 | | | 12.12- 72.12 | 42.11 |
| 40 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 14.051 | 14.051 (0.882) | 98 | 119275 | 5.31675 | 5.317 | 80.00- 120.00 | 100.00 |
| 14.051 | 14.051 (0.882) | 61 | 362256 | | | 293.73- 353.73 | 303.72 |
| 14.051 | 14.051 (0.882) | 96 | 191294 | | | 146.88- 206.88 | 160.38 |
| 43 Hexane | | | | | CAS #: 110-54-3 | | |
| 14.381 | 14.381 (0.903) | 57 | 519676 | 5.41186 | 5.412 | 80.00- 120.00 | 100.00 |
| 14.381 | 14.381 (0.903) | 43 | 458795 | | | 57.65- 117.65 | 88.28 |
| 14.381 | 14.381 (0.903) | 86 | 53268 | | | 0.00- 40.67 | 10.25 |
| 46 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.765 | 14.765 (0.927) | 63 | 498413 | 5.34866 | 5.349 | 80.00- 120.00 | 100.00 |
| 14.765 | 14.765 (0.927) | 65 | 152165 | | | 0.37- 60.37 | 30.53 |
| 47 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.793 | 14.793 (0.928) | 86 | 53179 | 5.59093 | 5.591 | 80.00- 120.00 | 100.00 |
| 14.793 | 14.793 (0.928) | 42 | 100014 | | | 220.92- 280.92 | 188.07 |
| 14.793 | 14.793 (0.928) | 43 | 1169352 | | | 3282.47-3342.47 | 2198.89 |
| 50 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.592 | 15.592 (0.979) | 98 | 162843 | 5.46998 | 5.470 | 80.00- 120.00 | 100.00 |
| 15.592 | 15.592 (0.979) | 61 | 451722 | | | 248.69- 308.69 | 277.40 |
| 15.592 | 15.592 (0.979) | 96 | 264621 | | | 126.98- 186.98 | 162.50 |
| 51 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.592 | 15.571 (0.979) | 72 | 107174 | 5.53925 | 5.539 | 80.00- 120.00 | 100.00 |
| 15.572 | 15.571 (0.977) | 43 | 888181 | | | 794.80- 854.80 | 828.72 |
| 15.592 | 15.571 (0.979) | 57 | 50617 | | | 18.01- 78.01 | 47.23 |
| 53 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.933 | 15.933 (1.000) | 42 | 552070 | 5.53712 | 5.537 | 80.00- 120.00 | 100.00 |
| 15.933 | 15.933 (1.000) | 71 | 106545 | | | 0.00- 49.03 | 19.30 |
| 15.933 | 15.933 (1.000) | 72 | 114504 | | | 0.00- 51.35 | 20.74 |
| 55 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.995 | 15.995 (1.004) | 83 | 489031 | 5.27436 | 5.274 | 80.00- 120.00 | 100.00 |
| 15.995 | 15.995 (1.004) | 85 | 315478 | | | 33.33- 93.33 | 64.51 |
| 57 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 16.242 | 16.242 (1.019) | 84 | 304466 | 5.22112 | 5.221 | 80.00- 120.00 | 100.00 |
| 16.242 | 16.242 (1.019) | 56 | 570641 | | | 157.43- 217.43 | 187.42 |
| 16.242 | 16.242 (1.019) | 41 | 437081 | | | 105.99- 165.99 | 143.56 |

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   58 1,1,1-Trichloroethane                        CAS #: 71-55-6
 16.242  16.242 (1.019)    97    494219 5.10461    5.105  80.00- 120.00   100.00
 16.242  16.242 (1.019)    99    314656                   32.16-  92.16    63.67
-------------------------------------------------------------------------------
   59 Carbon Tetrachloride                         CAS #: 56-23-5
 16.457  16.457 (1.033)   119    356505 3.83872    3.839  80.00- 120.00   100.00
 16.457  16.457 (1.033)   117    370985                   69.67- 129.67   104.06
                   Sum of Peak Concentrations =    3.839
-------------------------------------------------------------------------------
   63 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.728  16.728 (1.050)    56    519722 5.11424    5.114  80.00- 120.00   100.00
 16.728  16.728 (1.050)    57   1586388                  258.69- 318.69   305.24
 16.728  16.728 (1.050)    41    590080                   79.91- 139.91   113.54
-------------------------------------------------------------------------------
   64 Benzene                                      CAS #: 71-43-2
 16.756  16.756 (0.968)    78    710079 5.49628    5.496  80.00- 120.00   100.00
 16.756  16.756 (0.968)    77    171439                    0.00-  53.73    24.14
-------------------------------------------------------------------------------
   68 1,2-Dichloroethane                           CAS #: 107-06-2
 16.865  16.865 (0.975)    62    400063 5.10978    5.110  80.00- 120.00   100.00
 16.865  16.865 (0.975)    64    123247                    1.11-  61.11    30.81
-------------------------------------------------------------------------------
   69 Heptane                                      CAS #: 142-82-5
 16.975  16.948 (0.981)    57    298097 5.35366    5.354  80.00- 120.00   100.00
 16.975  16.948 (0.981)   100     68119                    0.00-  51.27    22.85
 16.948  16.948 (0.979)    43    791791                  235.24- 295.24   265.62
-------------------------------------------------------------------------------
   72 Trichloroethene                              CAS #: 79-01-6
 17.717  17.716 (1.024)   130    293769 5.05130    5.051  80.00- 120.00   100.00
 17.717  17.716 (1.024)    95    310234                   71.16- 131.16   105.60
 17.717  17.716 (1.024)    97    200393                   33.04-  93.04    68.21
-------------------------------------------------------------------------------
   73 Methylcyclohexane                            CAS #: 108-87-2
 17.964  17.964 (1.038)    83    417782 5.47037    5.470  80.00- 120.00   100.00
 17.964  17.964 (1.038)    98    183277                   15.02-  75.02    43.87
 17.964  17.964 (1.038)    55    510118                   95.64- 155.64   122.10
-------------------------------------------------------------------------------
   74 1,2-Dichloropropane                          CAS #: 78-87-5
 18.156  18.156 (1.049)    63    326998 5.51766    5.518  80.00- 120.00   100.00
 18.156  18.156 (1.049)    62    238125                   45.17- 105.17    72.82
 18.156  18.156 (1.049)    41    304917                   61.13- 121.13    93.25
-------------------------------------------------------------------------------
   75 1,4-Dioxane                                  CAS #: 123-91-1
 18.266  18.266 (1.056)    88    166503 5.59038    5.590  80.00- 120.00   100.00
 18.266  18.266 (1.056)    58    161858                   72.13- 132.13    97.21
 18.266  18.266 (1.056)    57     54291                    4.41-  64.41    32.61
-------------------------------------------------------------------------------
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| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 77 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.568 | 18.568 (1.073) | 83 | 514031 | 5.23910 | 5.239 | 80.00- 120.00 | 100.00 |
| 18.568 | 18.568 (1.073) | 85 | 331220 | | | 32.12- 92.12 | 64.44 |
| 78 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 19.386 | 19.386 (1.120) | 75 | 409576 | 6.10797 | 6.108 | 80.00- 120.00 | 100.00 |
| 19.386 | 19.386 (1.120) | 77 | 123595 | | | 1.25- 61.25 | 30.18 |
| 19.386 | 19.386 (1.120) | 39 | 413116 | | | 72.10- 132.10 | 100.86 |
| 79 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.587 | 19.587 (1.132) | 43 | 1077948 | 5.91124 | 5.911 | 80.00- 120.00 | 100.00 |
| 19.587 | 19.587 (1.132) | 58 | 280990 | | | 0.00- 57.24 | 26.07 |
| 19.587 | 19.587 (1.132) | 85 | 87552 | | | 0.00- 38.20 | 8.12 |
| 81 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.991 | 19.991 (1.155) | 91 | 779890 | 5.46884 | 5.469 | 80.00- 120.00 | 100.00 |
| 19.991 | 19.991 (1.155) | 92 | 438284 | | | 28.60- 88.60 | 56.20 |
| 82 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 20.435 | 20.435 (0.920) | 75 | 366583 | 5.04921 | 5.049 | 80.00- 120.00 | 100.00 |
| 20.435 | 20.435 (0.920) | 77 | 116091 | | | 5.48- 65.48 | 31.67 |
| 20.435 | 20.435 (0.920) | 39 | 363094 | | | 67.43- 127.43 | 99.05 |
| 84 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.757 | 20.757 (0.935) | 97 | 286869 | 5.17427 | 5.174 | 80.00- 120.00 | 100.00 |
| 20.757 | 20.757 (0.935) | 99 | 180033 | | | 32.13- 92.13 | 62.76 |
| 20.722 | 20.757 (0.933) | 83 | 254887 | | | 58.79- 118.79 | 88.85 |
| 86 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.901 | 20.901 (0.941) | 166 | 349013 | 4.86907 | 4.869 | 80.00- 120.00 | 100.00 |
| 20.901 | 20.901 (0.941) | 129 | 276766 | | | 47.04- 107.04 | 79.30 |
| 20.901 | 20.901 (0.941) | 131 | 275799 | | | 46.95- 106.95 | 79.02 |
| 87 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 21.044 | 21.044 (0.948) | 58 | 340337 | 5.48195 | 5.482 | 80.00- 120.00 | 100.00 |
| 21.044 | 21.044 (0.948) | 43 | 909337 | | | 242.48- 302.48 | 267.19 |
| 21.044 | 21.044 (0.948) | 100 | 47333 | | | 0.00- 43.88 | 13.91 |
| 89 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 21.367 | 21.367 (0.962) | 129 | 492284 | 4.77077 | 4.771 | 80.00- 120.00 | 100.00 |
| 21.367 | 21.367 (0.962) | 127 | 369980 | | | 50.38- 110.38 | 75.16 |
| 90 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 21.583 | 21.583 (0.972) | 107 | 444948 | 5.15172 | 5.152 | 80.00- 120.00 | 100.00 |
| 21.583 | 21.583 (0.972) | 109 | 411108 | | | 62.69- 122.69 | 92.39 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 93 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 22.233 | 22.233 (1.001) | 112 | 569320 | 4.92213 | 4.922 | 80.00- 120.00 | 100.00 |
| 22.233 | 22.233 (1.001) | 114 | 184835 | | | 1.62- 61.62 | 32.47 |
| 22.233 | 22.233 (1.001) | 77 | 387353 | | | 36.56- 96.56 | 68.04 |
| 95 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 22.315 | 22.315 (1.005) | 106 | 265007 | 5.10465 | 5.105 | 80.00- 120.00 | 100.00 |
| 22.315 | 22.315 (1.005) | 91 | 840496 | | | 292.36- 352.36 | 317.16 |
| 96 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 22.480 | 22.452 (1.012) | 106 | 256790 | 5.01629 | 5.016 | 80.00- 120.00 | 100.00 |
| 22.452 | 22.452 (1.011) | 91 | 540405 | | | 164.15- 224.15 | 210.45 |
| 100 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 23.001 | 23.001 (1.036) | 106 | 246931 | 5.18386 | 5.184 | 80.00- 120.00 | 100.00 |
| 23.001 | 23.001 (1.036) | 91 | 543168 | | | 186.63- 246.63 | 219.97 |
| 101 Styrene | | | | | CAS #: 100-42-5 | | |
| 23.029 | 23.029 (1.037) | 104 | 375448 | 5.38754 | 5.388 | 80.00- 120.00 | 100.00 |
| 23.029 | 23.029 (1.037) | 78 | 201734 | | | 28.70- 88.70 | 53.73 |
| 102 Bromoform | | | | | CAS #: 75-25-2 | | |
| 23.331 | 23.331 (1.051) | 173 | 407069 | 4.65443 | 4.654 | 80.00- 120.00 | 100.00 |
| 23.331 | 23.331 (1.051) | 171 | 211266 | | | 20.40- 80.40 | 51.90 |
| 103 Cumene | | | | | CAS #: 98-82-8 | | |
| 23.441 | 23.441 (1.056) | 105 | 724613 | 5.20921 | 5.209 | 80.00- 120.00 | 100.00 |
| 23.441 | 23.441 (1.056) | 120 | 188383 | | | 0.00- 57.73 | 26.00 |
| 108 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.833 | 23.832 (1.073) | 83 | 538403 | 5.03863 | 5.039 | 80.00- 120.00 | 100.00 |
| 23.833 | 23.832 (1.073) | 85 | 338674 | | | 34.81- 94.81 | 62.90 |
| 111 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.910 | 23.910 (1.077) | 91 | 652827 | 5.29097 | 5.291 | 80.00- 120.00 | 100.00 |
| 23.910 | 23.910 (1.077) | 120 | 146432 | | | 0.00- 53.83 | 22.43 |
| 113 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 24.039 | 24.039 (1.083) | 105 | 460332 | 5.08552 | 5.086 | 80.00- 120.00 | 100.00 |
| 24.039 | 24.039 (1.083) | 120 | 138546 | | | 0.18- 60.18 | 30.10 |
| 114 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 24.116 | 24.116 (1.086) | 105 | 477307 | 6.31543 | 6.315 | 80.00- 120.00 | 100.00 |
| 24.116 | 24.116 (1.086) | 120 | 225497 | | | 20.44- 80.44 | 47.24 |
| 120 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 24.529 | 24.529 (1.105) | 105 | 436062 | 7.12377 | 7.124 | 80.00- 120.00 | 100.00(R) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 120 1,2,4-Trimethylbenzene (continued) | | | | | | | |
| 24.529 | 24.529 (1.105) | 120 | 195831 | | | 19.27- 79.27 | 44.91 |
| 122 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.902 | 24.902 (1.121) | 146 | 281987 | 4.77427 | 4.774 | 80.00- 120.00 | 100.00 |
| 24.902 | 24.902 (1.121) | 148 | 181496 | | | 38.48- 98.48 | 64.36 |
| 24.902 | 24.902 (1.121) | 111 | 120499 | | | 10.49- 70.49 | 42.73 |
| 124 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.992 | 24.992 (1.125) | 146 | 246499 | 4.43935 | 4.439 | 80.00- 120.00 | 100.00 |
| 24.992 | 24.992 (1.125) | 148 | 158270 | | | 38.92- 98.92 | 64.21 |
| 24.992 | 24.992 (1.125) | 111 | 101605 | | | 11.61- 71.61 | 41.22 |
| 127 alpha-chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 25.127 | 25.126 (1.132) | 91 | 472458 | 7.96389 | 7.964 | 80.00- 120.00 | 100.00(R) |
| 25.127 | 25.126 (1.132) | 126 | 92585 | | | 0.00- 52.82 | 19.60 |
| 128 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.396 | 25.395 (1.144) | 146 | 263652 | 4.81107 | 4.811 | 80.00- 120.00 | 100.00 |
| 25.396 | 25.395 (1.144) | 148 | 164864 | | | 33.86- 93.86 | 62.53 |
| 25.396 | 25.395 (1.144) | 111 | 115548 | | | 15.01- 75.01 | 43.83 |
| 131 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.077 | 27.077 (1.219) | 180 | 235232 | 5.84914 | 5.849 | 80.00- 120.00 | 100.00 |
| 27.077 | 27.077 (1.219) | 182 | 229507 | | | 64.14- 124.14 | 97.57 |
| 132 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.167 | 27.166 (1.223) | 225 | 147571 | 4.38742 | 4.387 | 80.00- 120.00 | 100.00 |
| 27.167 | 27.166 (1.223) | 223 | 94769 | | | 44.27- 104.27 | 64.22 |
| 133 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.391 | 27.368 (1.234) | 128 | 35579 | 0.37357 | 0.3736 | 80.00- 120.00 | 100.00 |
| 27.391 | 27.368 (1.234) | 127 | 6747 | | | 0.00- 47.41 | 18.97 |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v121604.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/16Dec2014.b/v14l1006d.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 16-DEC-2014
Calibration Time: 08:42
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 109722 | 65833 | 153611 | 110022 | 0.27 |
| 71 1,4-Difluorobenze | 445503 | 267302 | 623704 | 437786 | -1.73 |
| 92 Chlorobenzene-d5 | 361081 | 216649 | 505513 | 352217 | -2.45 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 54 Bromochloromethan | 15.93 | 15.60 | 16.26 | 15.93 | 0.00 |
| 71 1,4-Difluorobenze | 17.30 | 16.97 | 17.63 | 17.30 | 0.00 |
| 92 Chlorobenzene-d5 | 22.21 | 21.88 | 22.54 | 22.21 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdv.i/16Dec2014.b/v121604.d



Date : 16-DEC-2014 10:21

Client ID: LCSD

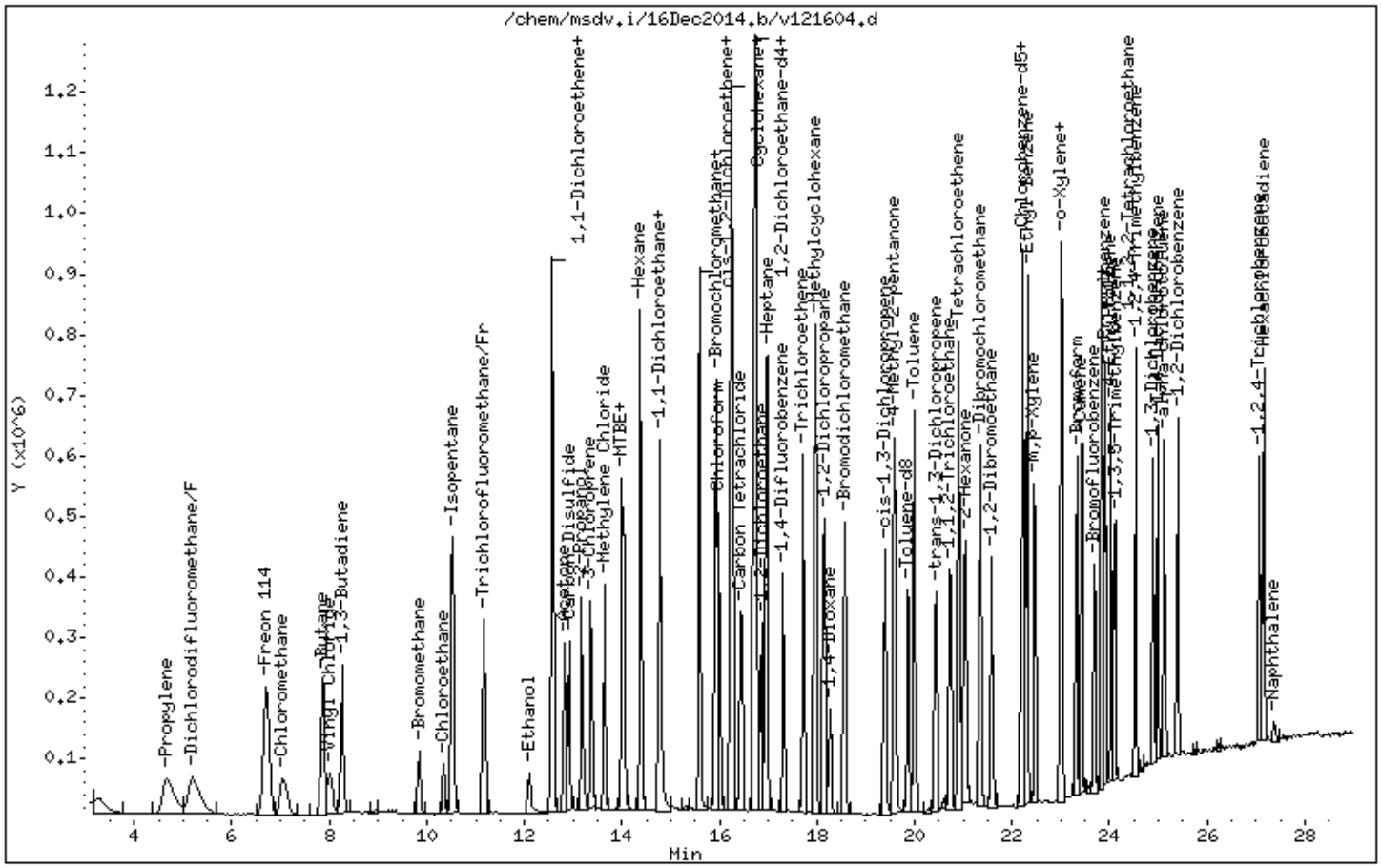
Instrument: msdv.i

Sample Info: 25mL #2677-274

Operator: ef

Column phase: RTx-624

Column diameter: 0.32



**Eurofins Air Toxics, Inc.** **MSD-V** **Logbook #2684**

| | |
|---|---|
| BFB Verification of 176/174 m/z Ratio: | 2616989 / 308480 x 100 = 96.27 |
| Tekmar Purge Flow: | |
| Vacuum: | 12/15/14 |

| | | | |
|---|---|---|---|
| IS/S Std. #: | 2687-1368 | Exp. Date: | 3/3/15 |
| BCM | LL: 109722 | Smi: | 116142 |
| 1,4-DFB | 445503 | | 475072 |
| CB-d5 | 360081 | | 385222 |

Verified CCV IS vs ICAL mid-point (-40%D): 

| | |
|---|---|
| File ID: | V121602 |
| Compound: | Toluene-d8 |
| Initials: | |

**Calculation Check:**

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( 441653 ) x ( 5.000 ) = 5.156
( 4455070 ) ( 0.961131 )

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.156

Method Name: VHL1006D / VHL1006A

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By Initials | Date Analyzed | Time Analyzed | Reviewed By Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | / | V121601 | BFB Tune check | 2299-790 | 50mg | 2µL | 1.00 | | 12/6/14 | 0720 | | |
| 2 | / | 02 | CCV (50ppbv) | 2687-48 | 5.0ppbv | 25mL | 1.00 | | | 0842 | | LL 6 out, standards Exp. 1/27/15 Smi: 2 out |
| 3 | / | 03 | LCS (50ppbv) | 2677-274 | 5.0ppbv | 25mL | 1.00 | | | 0939 | | LL 3 out Exp. 1/3/15 Smi: 0 out |
| 4 | / | 04 | LCSD (50ppbv) | 2677-274 | 5.0ppbv | 25mL | 1.00 | | | 1021 | | Exp. 1/3/15 |
| 5 | / | 05 | LAB Blank | 2533 | Humid | 250mL | 1.00 | | | 1111 | | OK for short list |
| 6 | / | 06 | 141214L-01AB | 24483 | 6.7"Hg-5.3psi | 250mL | 1.75 | | | 1201 | | "E" Stock (NT) |
| 7 | / | 07 | -02AB | 12685 | 6.7"Hg-5.0psi | 250mL | 1.74 | | | 1236 | | "E" Stock (NT) |
| 8 | / | 08 | -03AB | 4250 | 6.7"Hg-5.1psi | 250mL | 1.75 | | | 1313 | | |
| 9 | X | 09 | 141215A-01A | 34723 | 4.5"Hg-5.0psi | ~~250mL~~ 100mL | 3.95 | | | 1355 | | Out of range Re-do 50mL |
| 10 | ✓ | 10 | System Blank | 2533 | Humid | 250mL | 1.00 | | | 1444 | | SRL for LL targets Next work order |
| 11 | ✓ | 11 | 141215A-01A | 34723 | 4.5"Hg-5.0psi | 50ml | 7.90 | | | 1527 | | DILTC |
| 12 | ✓ | 12 | -02A | 35255 | 16"Hg-5.0psi | 250ml | 2.87 | | | 1613 | | |
| 13 | ✓ | 13 | -03A | 34450 | 3.0"Hg-5.0psi | 125ml | 2.98 | | | 1652 | | DILTC |
| 14 | ✓ | 14 | -04A | 1651 | 8.0"Hg-5.0psi | 250ml | 1.83 | | | 1737 | | |

Reviewed 12/16/14 Date

| | Use | File | Lab ID# | Can# | Pressure | Amt. Loaded | DF | Loaded By Initials | Date Analyzed | Time Analyzed | Reviewed By Initials | Comments/Standard Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | ✓ | V121615 | 1412151A-05A | 34440 | 5.0"Hg-5psi | 25ml | 1.61 | SV | 12/16/14 | 1814 | SV | |
| 16 | | 16 | 1412152A-01A | ~~3354~~ 33654 SV 12/16/14 | 6.9"Hg-4.9psi | 25ml | 1.73 | SV | | | | CAN# 33654 |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
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| 33 | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | |
| 35 | | | | | | | | | | | SV 12/16/14 | |
| 36 | | | | | | | | | | | | |

Reviewed 12/16/14 Date

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/06Oct2014.b/v100601.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 06-OCT-2014 11:34
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL #2299-788; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /chem/msdv.i/06Oct2014.b/bfb60.m
Meth Date : 05-Nov-2013 15:13 sblack Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 7.354 | -0.714 | 95 | 424320 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 7.354 | -0.714 | 50 | 134182 | | | 8.00- 40.00 | 31.62 |
| 6.640 | 7.354 | -0.714 | 75 | 218899 | | | 30.00- 66.00 | 51.59 |
| 6.640 | 7.354 | -0.714 | 96 | 28017 | | | 5.00- 9.00 | 6.60 |
| 6.640 | 7.354 | -0.714 | 173 | 2899 | | | 0.00- 1.99 | 0.92 |
| 6.640 | 7.354 | -0.714 | 174 | 316330 | | | 50.00- 120.00 | 74.55 |
| 6.640 | 7.354 | -0.714 | 175 | 22940 | | | 4.00- 9.00 | 7.25 |
| 6.640 | 7.354 | -0.714 | 176 | 303064 | | | 93.00- 101.00 | 95.81 |
| 6.640 | 7.354 | -0.714 | 177 | 19307 | | | 5.00- 9.00 | 6.37 |

Data File: /var/chem/msdv.i/06Oct2014.b/v100601.d



Date : 06-OCT-2014 11:34

Client ID: BFB

Instrument: msdv.i

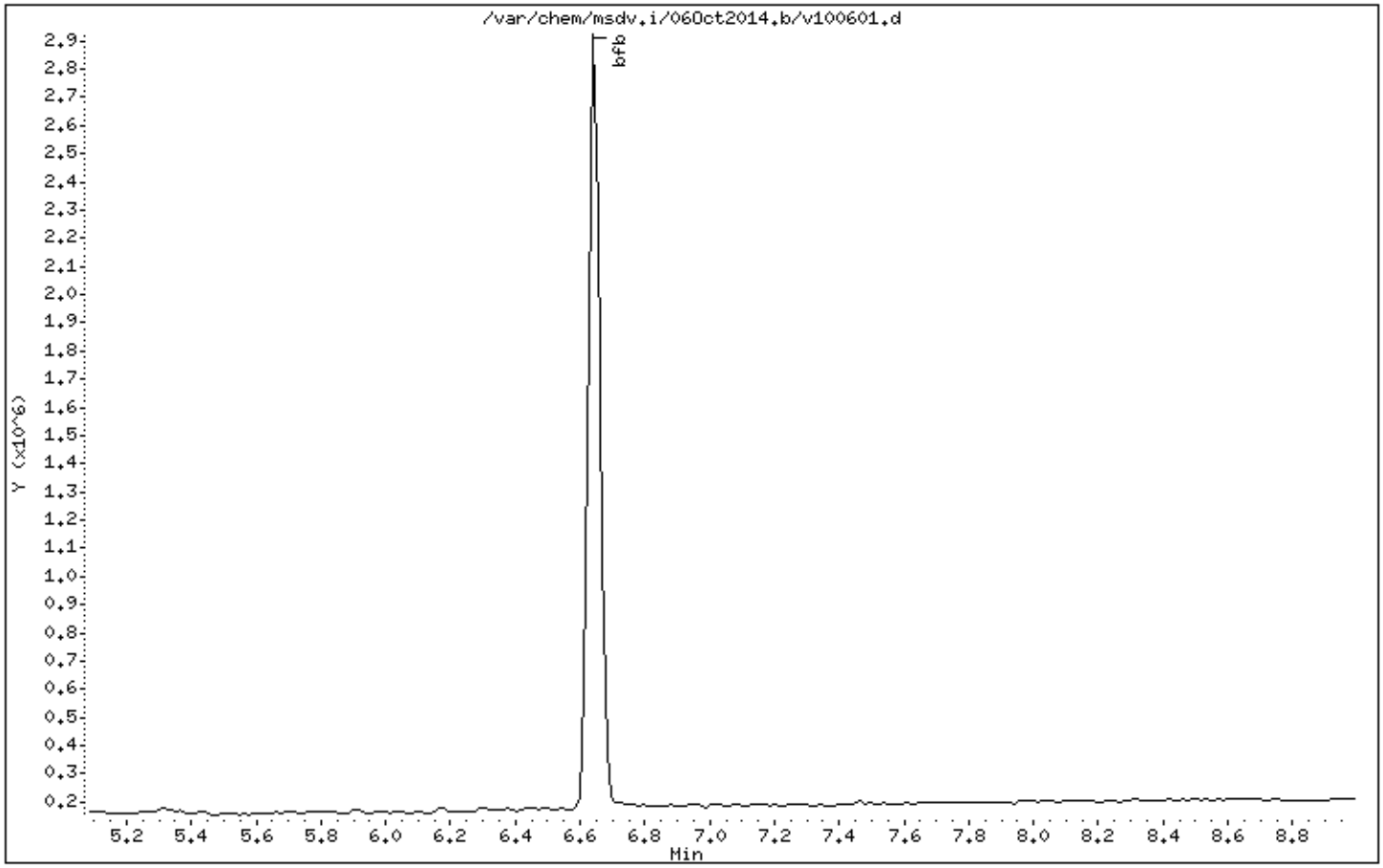
Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdv.i/06Oct2014.b/v100601.d 

Date : 06-OCT-2014 11:34

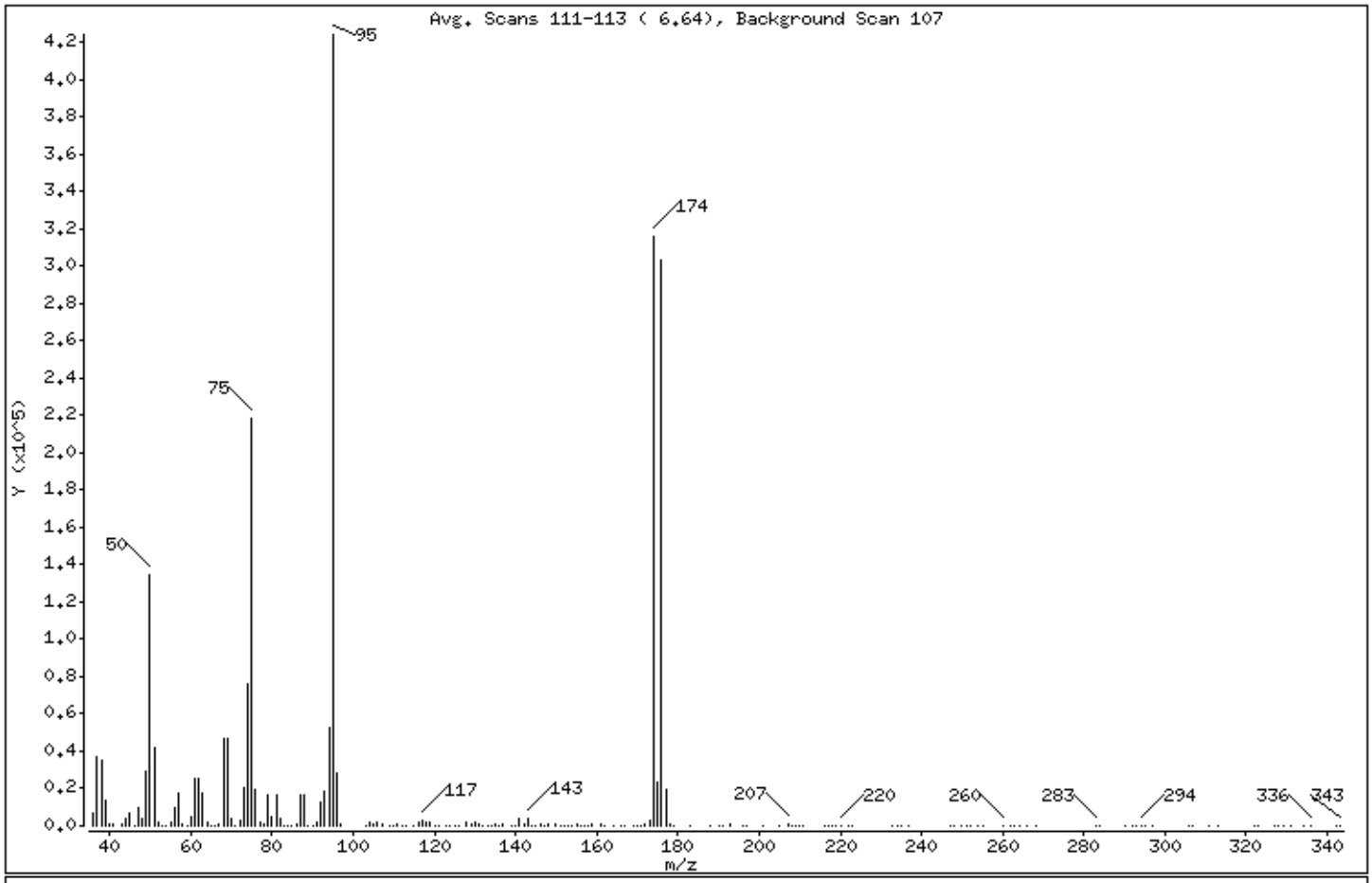
Client ID: BFB Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 31.62 |
| 75 | 30.00 - 66.00% of mass 95 | 51.59 |
| 96 | 5.00 - 9.00% of mass 95 | 6.60 |
| 173 | Less than 1.99% of mass 174 | 0.68 ( 0.92) |
| 174 | 50.00 - 120.00% of mass 95 | 74.55 |
| 175 | 4.00 - 9.00% of mass 174 | 5.41 ( 7.25) |
| 176 | 93.00 - 101.00% of mass 174 | 71.42 ( 95.81) |
| 177 | 5.00 - 9.00% of mass 176 | 4.55 ( 6.37) |

Data File: /var/chem/msdv.i/06Oct2014.b/v100601.d

Date : 06-OCT-2014 11:34

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v100601.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 188

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 6940 | 85.00 | 176 | 143.00 | 4387 | 218.00 | 19 |
| 37.00 | 37288 | 86.00 | 565 | 144.00 | 262 | 219.00 | 69 |
| 38.00 | 35496 | 87.00 | 17024 | 145.00 | 144 | 220.00 | 220 |
| 39.00 | 13468 | 88.00 | 16137 | 146.00 | 839 | 222.00 | 61 |
| 40.00 | 695 | 89.00 | 146 | 147.00 | 417 | 223.00 | 152 |
| 41.00 | 550 | 90.00 | 29 | 148.00 | 701 | 233.00 | 6 |
| 43.00 | 720 | 91.00 | 2245 | 150.00 | 559 | 234.00 | 88 |
| 44.00 | 3864 | 92.00 | 12550 | 151.00 | 276 | 235.00 | 122 |
| 45.00 | 6797 | 93.00 | 18264 | 152.00 | 281 | 237.00 | 90 |
| 46.00 | 308 | 94.00 | 52376 | 153.00 | 377 | 247.00 | 75 |
| 47.00 | 9778 | 95.00 | 424320 | 154.00 | 361 | 248.00 | 135 |
| 48.00 | 3733 | 96.00 | 28016 | 155.00 | 947 | 250.00 | 14 |
| 49.00 | 28976 | 97.00 | 877 | 156.00 | 104 | 251.00 | 17 |
| 50.00 | 134144 | 103.00 | 364 | 157.00 | 487 | 252.00 | 43 |
| 51.00 | 41728 | 104.00 | 2330 | 158.00 | 336 | 254.00 | 228 |
| 52.00 | 1592 | 105.00 | 532 | 159.00 | 702 | 255.00 | 166 |
| 53.00 | 24 | 106.00 | 2211 | 161.00 | 524 | 260.00 | 352 |
| 54.00 | 15 | 107.00 | 670 | 162.00 | 53 | 262.00 | 124 |
| 55.00 | 1568 | 109.00 | 250 | 164.00 | 121 | 263.00 | 53 |
| 56.00 | 9614 | 110.00 | 424 | 166.00 | 170 | 264.00 | 64 |
| 57.00 | 17376 | 111.00 | 622 | 167.00 | 192 | 266.00 | 78 |
| 58.00 | 800 | 112.00 | 417 | 169.00 | 104 | 268.00 | 47 |
| 59.00 | 219 | 113.00 | 441 | 170.00 | 311 | 283.00 | 296 |
| 60.00 | 5126 | 115.00 | 423 | 171.00 | 277 | 284.00 | 35 |
| 61.00 | 25520 | 116.00 | 1644 | 172.00 | 744 | 290.00 | 52 |
| 62.00 | 25080 | 117.00 | 2855 | 173.00 | 2899 | 292.00 | 53 |
| 63.00 | 17680 | 118.00 | 1751 | 174.00 | 316288 | 293.00 | 186 |
| 64.00 | 1628 | 119.00 | 2031 | 175.00 | 22936 | 294.00 | 260 |
| 65.00 | 238 | 120.00 | 194 | 176.00 | 303040 | 295.00 | 52 |
| 66.00 | 76 | 121.00 | 101 | 177.00 | 19304 | 297.00 | 56 |
| 67.00 | 1263 | 123.00 | 306 | 178.00 | 783 | 306.00 | 143 |
| 68.00 | 47192 | 124.00 | 295 | 179.00 | 215 | 307.00 | 128 |
| 69.00 | 46624 | 125.00 | 307 | 183.00 | 64 | 311.00 | 55 |
| 70.00 | 3686 | 126.00 | 257 | 188.00 | 51 | 313.00 | 45 |
| 71.00 | 381 | 128.00 | 1753 | 190.00 | 130 | 322.00 | 178 |

Data File: /var/chem/msdv.i/06Oct2014.b/v100601.d

Date : 06-OCT-2014 11:34

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v100601.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 188

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 72.00 | 2612 | 129.00 | 648 | 191.00 | 175 | 323.00 | 57 |
| 73.00 | 20376 | 130.00 | 1497 | 193.00 | 519 | 327.00 | 20 |
| 74.00 | 76072 | 131.00 | 556 | 196.00 | 11 | 328.00 | 24 |
| 75.00 | 218880 | 132.00 | 350 | 197.00 | 131 | 329.00 | 64 |
| 76.00 | 19776 | 133.00 | 250 | 201.00 | 76 | 331.00 | 98 |
| 77.00 | 2140 | 134.00 | 253 | 205.00 | 33 | 334.00 | 170 |
| 78.00 | 1305 | 135.00 | 1078 | 207.00 | 1034 | 336.00 | 226 |
| 79.00 | 16373 | 136.00 | 51 | 208.00 | 25 | 342.00 | 160 |
| 80.00 | 4590 | 137.00 | 1084 | 209.00 | 195 | 343.00 | 223 |
| 81.00 | 16148 | 139.00 | 76 | 210.00 | 14 | | |
| 82.00 | 3628 | 140.00 | 380 | 211.00 | 214 | | |
| 83.00 | 263 | 141.00 | 4080 | 216.00 | 184 | | |
| 84.00 | 73 | 142.00 | 604 | 217.00 | 203 | | |

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/07Oct2014.b/v100701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 07-OCT-2014 12:07
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL #2299-788; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/07Oct2014.b/bfb60.m
Meth Date : 07-Oct-2014 12:24 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 7.354 | -0.714 | 95 | 413060 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 7.354 | -0.714 | 50 | 127442 | | | 8.00- 40.00 | 30.85 |
| 6.640 | 7.354 | -0.714 | 75 | 213688 | | | 30.00- 66.00 | 51.73 |
| 6.640 | 7.354 | -0.714 | 96 | 26957 | | | 5.00- 9.00 | 6.53 |
| 6.640 | 7.354 | -0.714 | 173 | 3076 | | | 0.00- 1.99 | 1.01 |
| 6.640 | 7.354 | -0.714 | 174 | 305706 | | | 50.00- 120.00 | 74.01 |
| 6.640 | 7.354 | -0.714 | 175 | 22600 | | | 4.00- 9.00 | 7.39 |
| 6.640 | 7.354 | -0.714 | 176 | 296216 | | | 93.00- 101.00 | 96.90 |
| 6.640 | 7.354 | -0.714 | 177 | 19348 | | | 5.00- 9.00 | 6.53 |

Data File: /var/chem/msdv.i/07Oct2014.b/v100701.d



Date : 07-OCT-2014 12:07

Client ID: BFB

Instrument: msdv.i

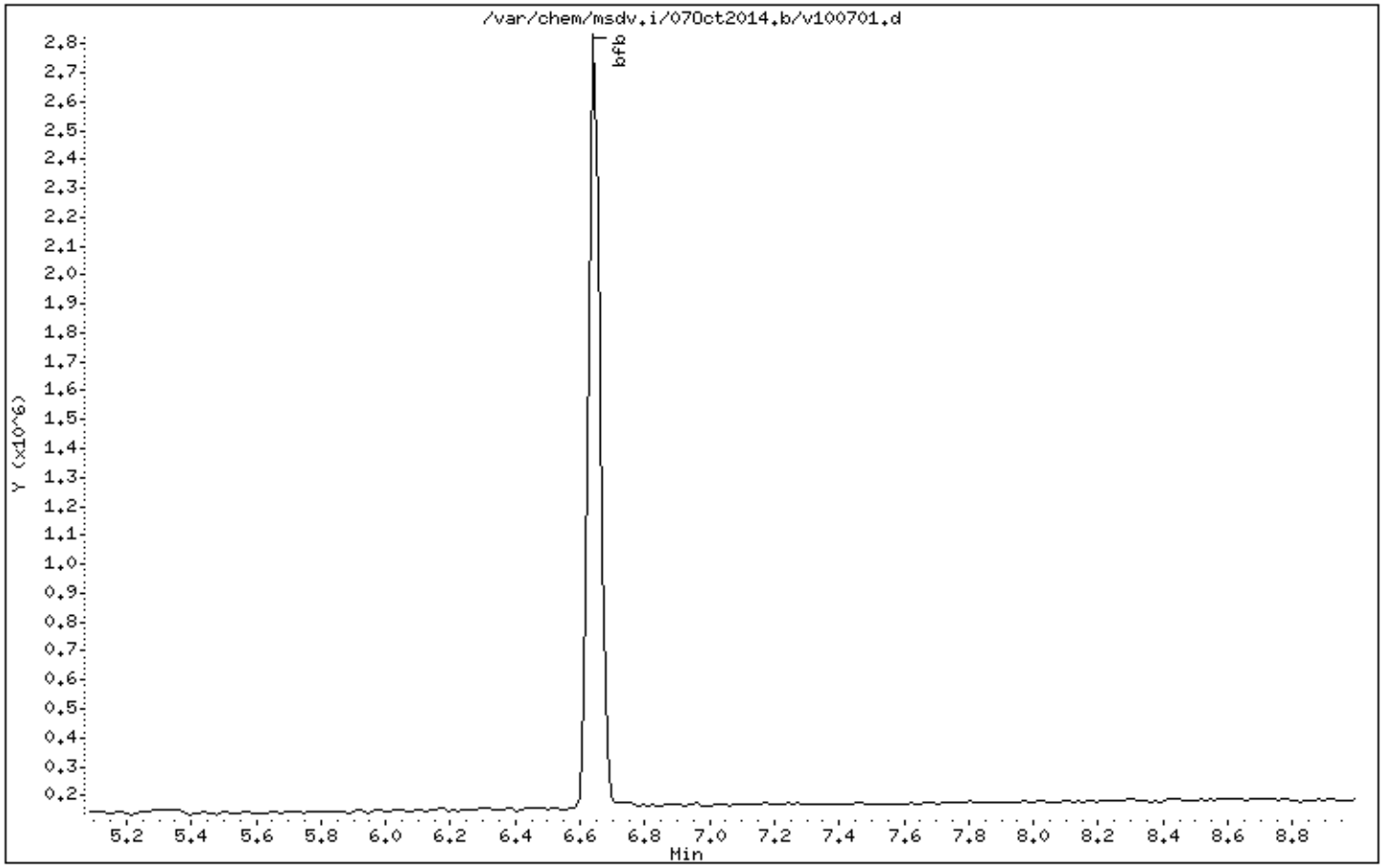
Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdv.i/07Oct2014.b/v100701.d 

Date : 07-OCT-2014 12:07

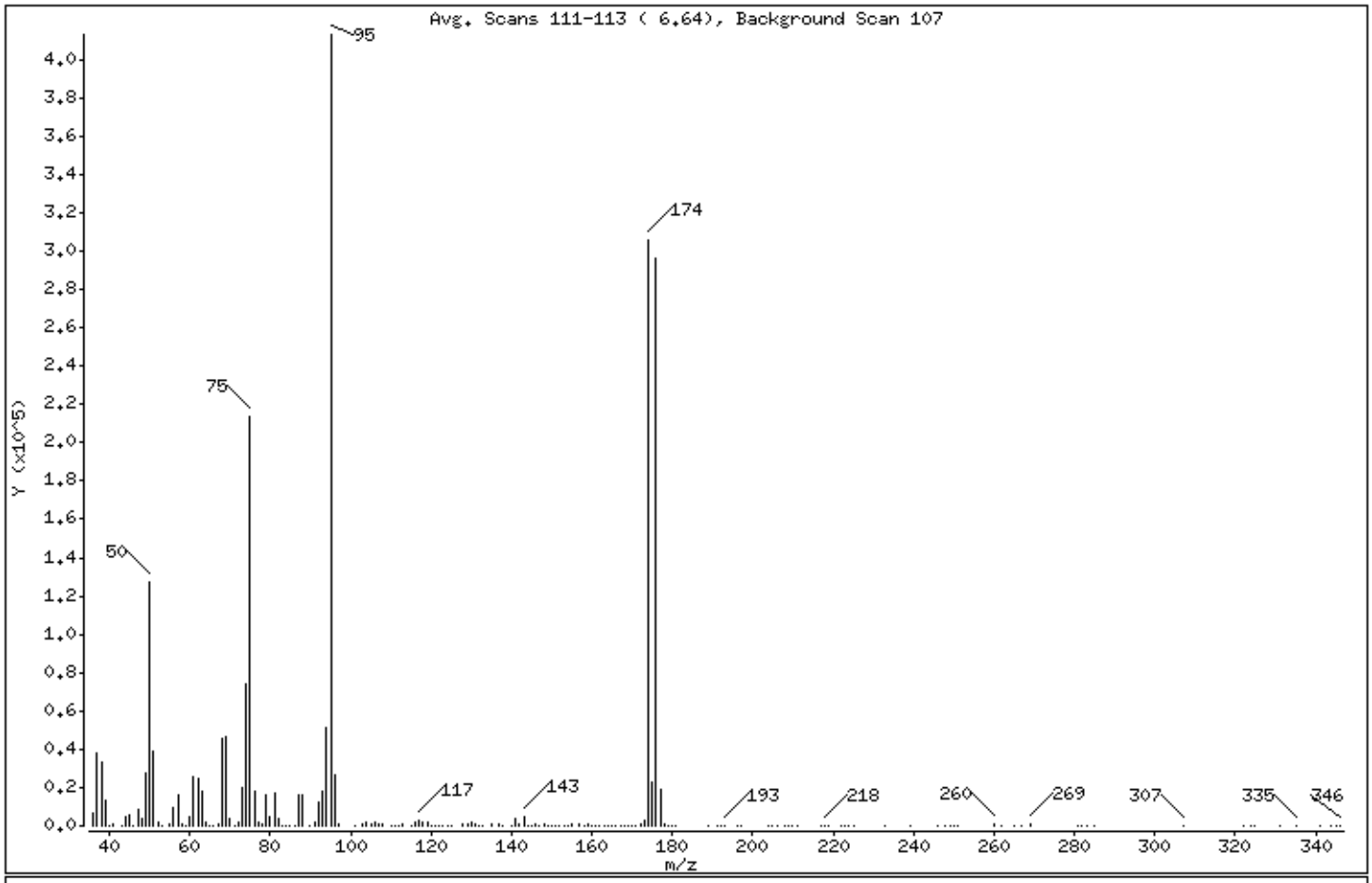
Client ID: BFB Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 30.85 |
| 75 | 30.00 - 66.00% of mass 95 | 51.73 |
| 96 | 5.00 - 9.00% of mass 95 | 6.53 |
| 173 | Less than 1.99% of mass 174 | 0.74 ( 1.01) |
| 174 | 50.00 - 120.00% of mass 95 | 74.01 |
| 175 | 4.00 - 9.00% of mass 174 | 5.47 ( 7.39) |
| 176 | 93.00 - 101.00% of mass 174 | 71.71 ( 96.90) |
| 177 | 5.00 - 9.00% of mass 176 | 4.68 ( 6.53) |

Data File: /var/chem/msdv.i/07Oct2014.b/v100701.d

Date : 07-OCT-2014 12:07

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v100701.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 177

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 6316 | 83.00 | 246 | 140.00 | 206 | 196.00 | 31 |
| 37.00 | 37616 | 84.00 | 74 | 141.00 | 4201 | 197.00 | 138 |
| 38.00 | 32936 | 85.00 | 277 | 142.00 | 541 | 204.00 | 34 |
| 39.00 | 13037 | 86.00 | 416 | 143.00 | 4329 | 205.00 | 101 |
| 40.00 | 365 | 87.00 | 16038 | 144.00 | 354 | 206.00 | 130 |
| 41.00 | 790 | 88.00 | 15874 | 145.00 | 281 | 208.00 | 189 |
| 43.00 | 385 | 90.00 | 216 | 146.00 | 511 | 209.00 | 67 |
| 44.00 | 4932 | 91.00 | 2155 | 147.00 | 172 | 210.00 | 107 |
| 45.00 | 5873 | 92.00 | 12235 | 148.00 | 1112 | 211.00 | 78 |
| 46.00 | 472 | 93.00 | 18448 | 149.00 | 363 | 217.00 | 56 |
| 47.00 | 8537 | 94.00 | 50928 | 150.00 | 397 | 218.00 | 129 |
| 48.00 | 3864 | 95.00 | 413056 | 151.00 | 3 | 219.00 | 119 |
| 49.00 | 27448 | 96.00 | 26952 | 152.00 | 214 | 222.00 | 50 |
| 50.00 | 127440 | 97.00 | 570 | 153.00 | 242 | 223.00 | 8 |
| 51.00 | 39056 | 101.00 | 177 | 154.00 | 308 | 224.00 | 62 |
| 52.00 | 1508 | 103.00 | 538 | 155.00 | 937 | 225.00 | 63 |
| 53.00 | 130 | 104.00 | 1987 | 157.00 | 480 | 233.00 | 46 |
| 55.00 | 1336 | 105.00 | 565 | 158.00 | 366 | 239.00 | 80 |
| 56.00 | 9295 | 106.00 | 2061 | 159.00 | 561 | 246.00 | 53 |
| 57.00 | 16480 | 107.00 | 746 | 160.00 | 55 | 248.00 | 111 |
| 58.00 | 569 | 108.00 | 503 | 161.00 | 247 | 249.00 | 59 |
| 59.00 | 359 | 110.00 | 416 | 162.00 | 93 | 250.00 | 2 |
| 60.00 | 4764 | 111.00 | 324 | 163.00 | 353 | 251.00 | 205 |
| 61.00 | 25248 | 112.00 | 214 | 164.00 | 106 | 260.00 | 617 |
| 62.00 | 24488 | 113.00 | 531 | 165.00 | 22 | 262.00 | 94 |
| 63.00 | 17808 | 115.00 | 375 | 166.00 | 150 | 265.00 | 201 |
| 64.00 | 1664 | 116.00 | 1520 | 167.00 | 82 | 267.00 | 190 |
| 65.00 | 168 | 117.00 | 2958 | 168.00 | 83 | 269.00 | 820 |
| 66.00 | 82 | 118.00 | 1632 | 169.00 | 179 | 281.00 | 171 |
| 67.00 | 1176 | 119.00 | 2179 | 170.00 | 243 | 282.00 | 182 |
| 68.00 | 45216 | 120.00 | 69 | 171.00 | 200 | 283.00 | 99 |
| 69.00 | 46544 | 121.00 | 136 | 172.00 | 717 | 285.00 | 58 |
| 70.00 | 3535 | 122.00 | 139 | 173.00 | 3076 | 307.00 | 72 |
| 71.00 | 253 | 123.00 | 55 | 174.00 | 305664 | 322.00 | 157 |
| 72.00 | 2347 | 124.00 | 264 | 175.00 | 22600 | 324.00 | 68 |

Data File: /var/chem/msdv.i/07Oct2014.b/v100701.d

Date : 07-OCT-2014 12:07

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v100701.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 177

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 19664 | 125.00 | 115 | 176.00 | 296192 | 325.00 | 50 |
| 74.00 | 73824 | 128.00 | 1235 | 177.00 | 19344 | 331.00 | 154 |
| 75.00 | 213632 | 129.00 | 786 | 178.00 | 566 | 335.00 | 161 |
| 76.00 | 18376 | 130.00 | 1571 | 179.00 | 159 | 341.00 | 56 |
| 77.00 | 1967 | 131.00 | 708 | 180.00 | 129 | 344.00 | 140 |
| 78.00 | 1359 | 132.00 | 80 | 181.00 | 155 | 345.00 | 51 |
| 79.00 | 16600 | 133.00 | 395 | 189.00 | 39 | 346.00 | 59 |
| 80.00 | 4447 | 135.00 | 1014 | 191.00 | 297 | | |
| 81.00 | 16672 | 137.00 | 910 | 192.00 | 39 | | |
| 82.00 | 3742 | 138.00 | 142 | 193.00 | 333 | | |

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/17Oct2014.b/v101701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 17-OCT-2014 09:24
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL #2299-788; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/17Oct2014.b/bfb60.m
Meth Date : 17-Oct-2014 09:41 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 7.354 | -0.714 | 95 | 439849 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 7.354 | -0.714 | 50 | 129573 | | | 8.00- 40.00 | 29.46 |
| 6.640 | 7.354 | -0.714 | 75 | 221565 | | | 30.00- 66.00 | 50.37 |
| 6.640 | 7.354 | -0.714 | 96 | 29500 | | | 5.00- 9.00 | 6.71 |
| 6.640 | 7.354 | -0.714 | 173 | 2476 | | | 0.00- 1.99 | 0.71 |
| 6.640 | 7.354 | -0.714 | 174 | 348458 | | | 50.00- 120.00 | 79.22 |
| 6.640 | 7.354 | -0.714 | 175 | 25528 | | | 4.00- 9.00 | 7.33 |
| 6.640 | 7.354 | -0.714 | 176 | 337362 | | | 93.00- 101.00 | 96.82 |
| 6.640 | 7.354 | -0.714 | 177 | 22060 | | | 5.00- 9.00 | 6.54 |

Data File: /chem/msdv.i/17Oct2014.b/v101701.d



Date : 17-OCT-2014 09:24

Client ID: BFB

Instrument: msdv.i

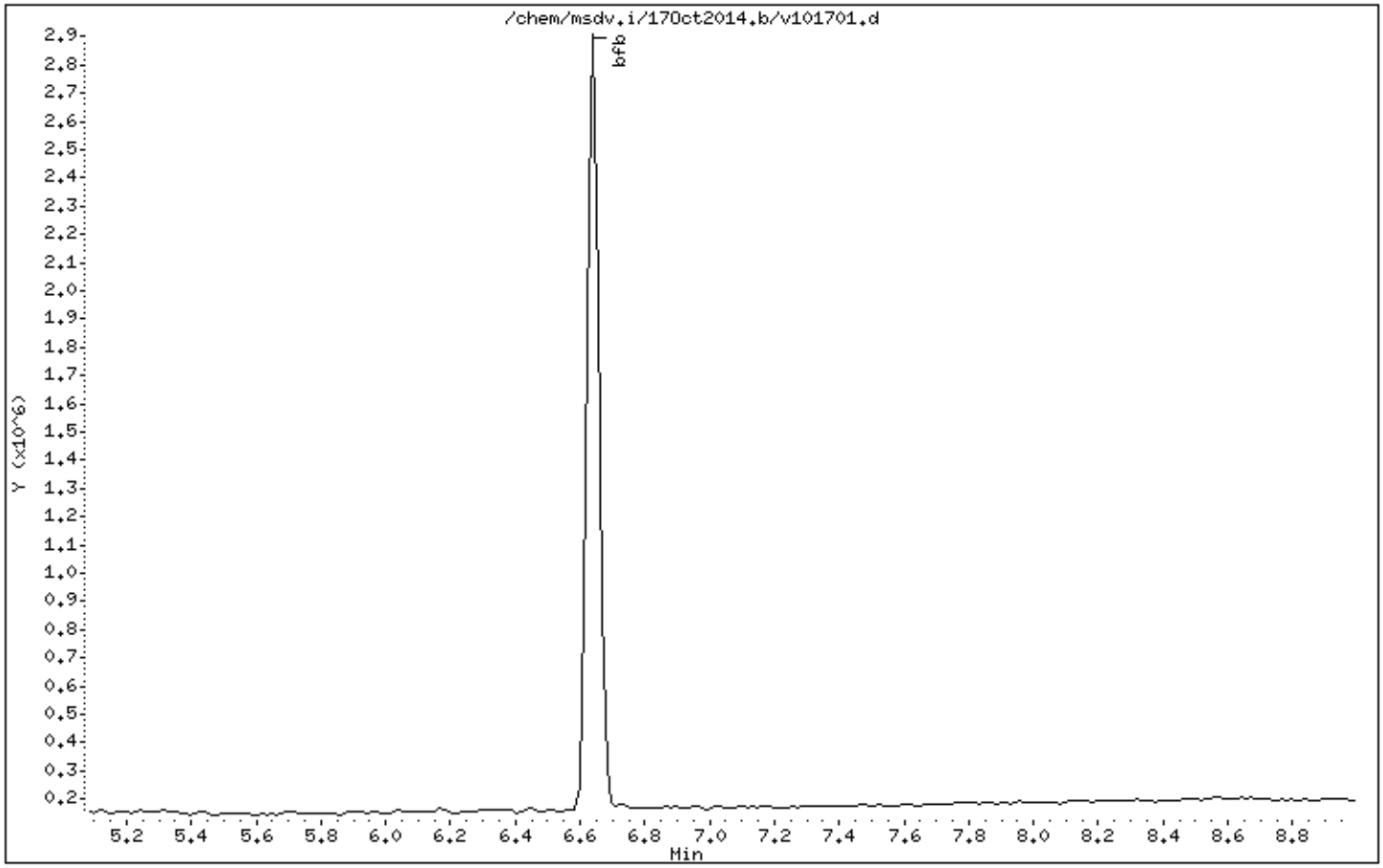
Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msdv.i/17Oct2014.b/v101701.d



Date : 17-OCT-2014 09:24

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

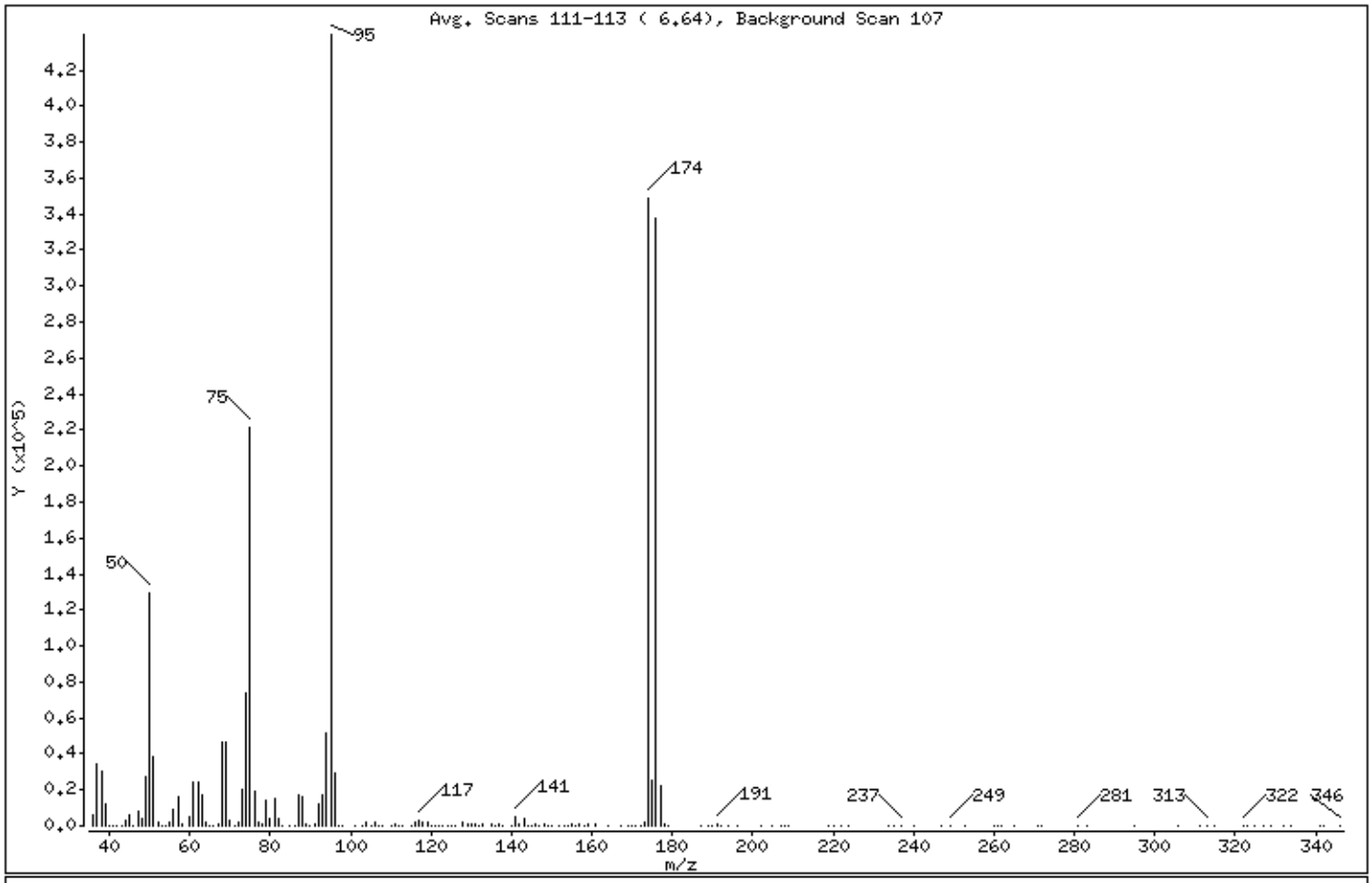
Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 29.46 |
| 75 | 30.00 - 66.00% of mass 95 | 50.37 |
| 96 | 5.00 - 9.00% of mass 95 | 6.71 |
| 173 | Less than 1.99% of mass 174 | 0.56 ( 0.71) |
| 174 | 50.00 - 120.00% of mass 95 | 79.22 |
| 175 | 4.00 - 9.00% of mass 174 | 5.80 ( 7.33) |
| 176 | 93.00 - 101.00% of mass 174 | 76.70 ( 96.82) |
| 177 | 5.00 - 9.00% of mass 176 | 5.02 ( 6.54) |

Data File: /chem/msdv.i/17Oct2014.b/v101701.d

Date : 17-OCT-2014 09:24

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v101701.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 173

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 6152 | 81.00 | 15579 | 132.00 | 29 | 194.00 | 56 |
| 37.00 | 34752 | 82.00 | 3693 | 133.00 | 694 | 196.00 | 204 |
| 38.00 | 30296 | 83.00 | 465 | 135.00 | 962 | 202.00 | 65 |
| 39.00 | 11895 | 85.00 | 78 | 136.00 | 166 | 205.00 | 77 |
| 40.00 | 213 | 86.00 | 455 | 137.00 | 698 | 207.00 | 493 |
| 41.00 | 233 | 87.00 | 17008 | 138.00 | 65 | 208.00 | 350 |
| 42.00 | 187 | 88.00 | 16624 | 140.00 | 370 | 209.00 | 223 |
| 43.00 | 474 | 89.00 | 532 | 141.00 | 4577 | 219.00 | 18 |
| 44.00 | 3480 | 90.00 | 57 | 142.00 | 562 | 220.00 | 38 |
| 45.00 | 5705 | 91.00 | 1443 | 143.00 | 4446 | 222.00 | 50 |
| 46.00 | 478 | 92.00 | 12085 | 144.00 | 353 | 224.00 | 57 |
| 47.00 | 8386 | 93.00 | 17288 | 145.00 | 263 | 234.00 | 23 |
| 48.00 | 3708 | 94.00 | 52064 | 146.00 | 551 | 235.00 | 26 |
| 49.00 | 27744 | 95.00 | 439808 | 147.00 | 65 | 237.00 | 58 |
| 50.00 | 129568 | 96.00 | 29496 | 148.00 | 899 | 240.00 | 50 |
| 51.00 | 38896 | 97.00 | 424 | 149.00 | 303 | 247.00 | 159 |
| 52.00 | 1636 | 98.00 | 57 | 150.00 | 328 | 249.00 | 335 |
| 53.00 | 48 | 101.00 | 44 | 152.00 | 257 | 253.00 | 26 |
| 54.00 | 50 | 103.00 | 360 | 153.00 | 341 | 260.00 | 294 |
| 55.00 | 1646 | 104.00 | 1950 | 154.00 | 411 | 261.00 | 232 |
| 56.00 | 9115 | 105.00 | 357 | 155.00 | 993 | 262.00 | 10 |
| 57.00 | 16306 | 106.00 | 2132 | 156.00 | 78 | 265.00 | 9 |
| 58.00 | 782 | 107.00 | 341 | 157.00 | 519 | 271.00 | 7 |
| 60.00 | 5095 | 108.00 | 153 | 158.00 | 260 | 272.00 | 92 |
| 61.00 | 24112 | 110.00 | 253 | 159.00 | 564 | 281.00 | 265 |
| 62.00 | 24440 | 111.00 | 542 | 161.00 | 566 | 283.00 | 29 |
| 63.00 | 17488 | 112.00 | 491 | 164.00 | 22 | 295.00 | 51 |
| 64.00 | 1724 | 113.00 | 412 | 167.00 | 50 | 306.00 | 30 |
| 65.00 | 114 | 115.00 | 472 | 169.00 | 50 | 311.00 | 50 |
| 66.00 | 89 | 116.00 | 1768 | 170.00 | 107 | 313.00 | 72 |
| 67.00 | 1293 | 117.00 | 2682 | 171.00 | 153 | 315.00 | 56 |
| 68.00 | 46056 | 118.00 | 1668 | 172.00 | 367 | 322.00 | 191 |
| 69.00 | 46824 | 119.00 | 2431 | 173.00 | 2476 | 323.00 | 78 |
| 70.00 | 3474 | 120.00 | 76 | 174.00 | 348416 | 325.00 | 79 |
| 71.00 | 356 | 121.00 | 147 | 175.00 | 25528 | 327.00 | 178 |

Data File: /chem/msdv.i/17Oct2014.b/v101701.d

Date : 17-OCT-2014 09:24

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v101701.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 173

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 72.00 | 2316 | 122.00 | 111 | 176.00 | 337344 | 329.00 | 45 |
| 73.00 | 20368 | 123.00 | 99 | 177.00 | 22056 | 332.00 | 51 |
| 74.00 | 73920 | 124.00 | 306 | 178.00 | 659 | 334.00 | 85 |
| 75.00 | 221504 | 125.00 | 128 | 179.00 | 68 | 341.00 | 39 |
| 76.00 | 18984 | 126.00 | 72 | 187.00 | 55 | 342.00 | 104 |
| 77.00 | 2279 | 128.00 | 1518 | 189.00 | 12 | 346.00 | 8 |
| 78.00 | 1378 | 129.00 | 897 | 190.00 | 60 | | |
| 79.00 | 14440 | 130.00 | 1498 | 191.00 | 536 | | |
| 80.00 | 4392 | 131.00 | 738 | 192.00 | 98 | | |

Eurofins Air Toxics Inc.

Data file : /chem/msdv.i/22Oct2014.b/v102201.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 22-OCT-2014 09:04
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL #2299-788; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /chem/msdv.i/22Oct2014.b/bfb60.m
Meth Date : 22-Oct-2014 09:24 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 6.640 | 0.000 | 95 | 406442 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 6.640 | 0.000 | 50 | 119178 | | | 8.00- 40.00 | 29.32 |
| 6.640 | 6.640 | 0.000 | 75 | 198888 | | | 30.00- 66.00 | 48.93 |
| 6.640 | 6.640 | 0.000 | 96 | 26670 | | | 5.00- 9.00 | 6.56 |
| 6.640 | 6.640 | 0.000 | 173 | 2672 | | | 0.00- 1.99 | 0.82 |
| 6.640 | 6.640 | 0.000 | 174 | 324864 | | | 50.00- 120.00 | 79.93 |
| 6.640 | 6.640 | 0.000 | 175 | 23832 | | | 4.00- 9.00 | 7.34 |
| 6.640 | 6.640 | 0.000 | 176 | 314611 | | | 93.00- 101.00 | 96.84 |
| 6.640 | 6.640 | 0.000 | 177 | 20719 | | | 5.00- 9.00 | 6.59 |

Data File: /chem/msdv.i/22Oct2014.b/v102201.d



Date : 22-OCT-2014 09:04

Client ID: BFB

Instrument: msdv.i

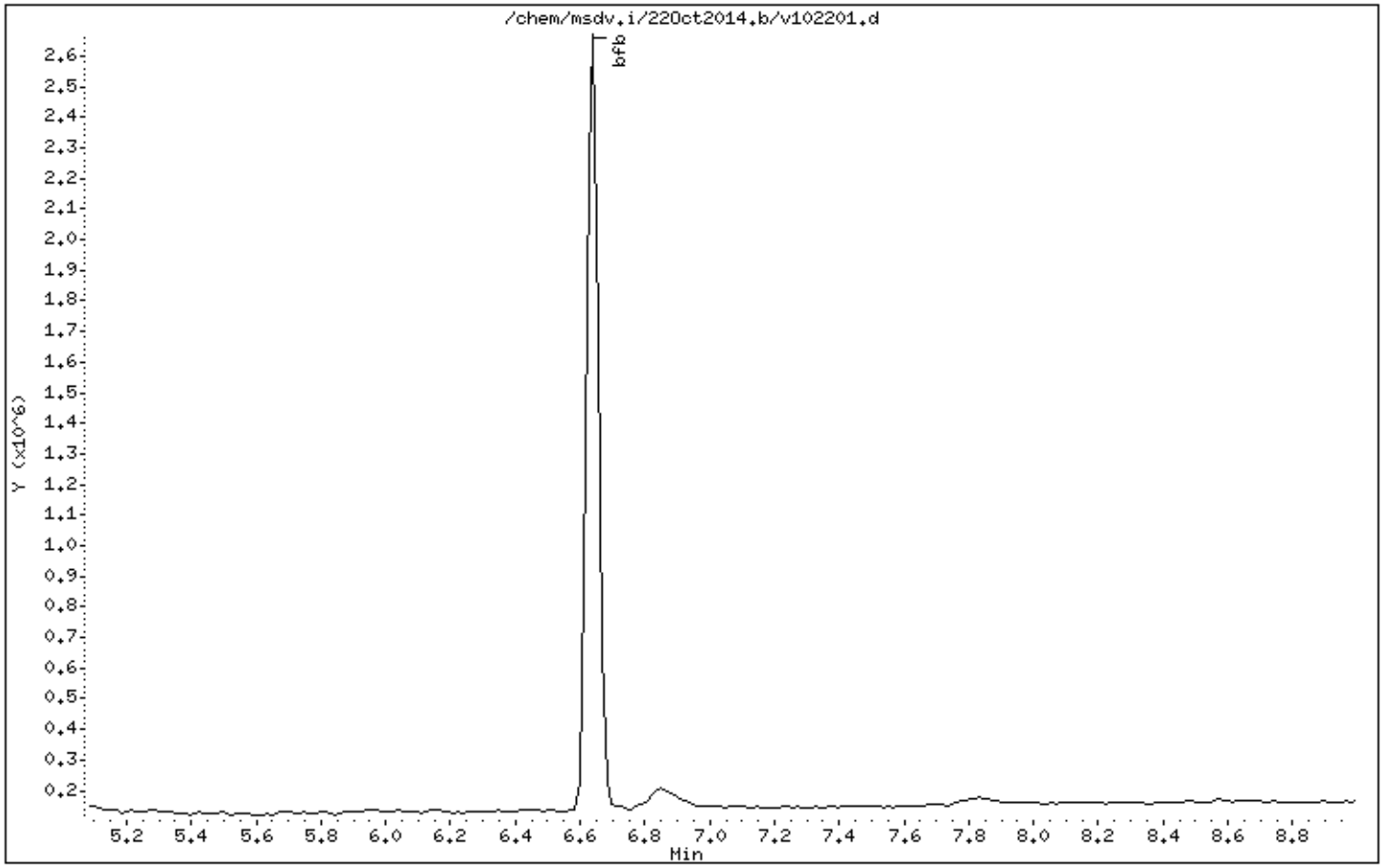
Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msdv.i/22Oct2014.b/v102201.d 

Date : 22-OCT-2014 09:04

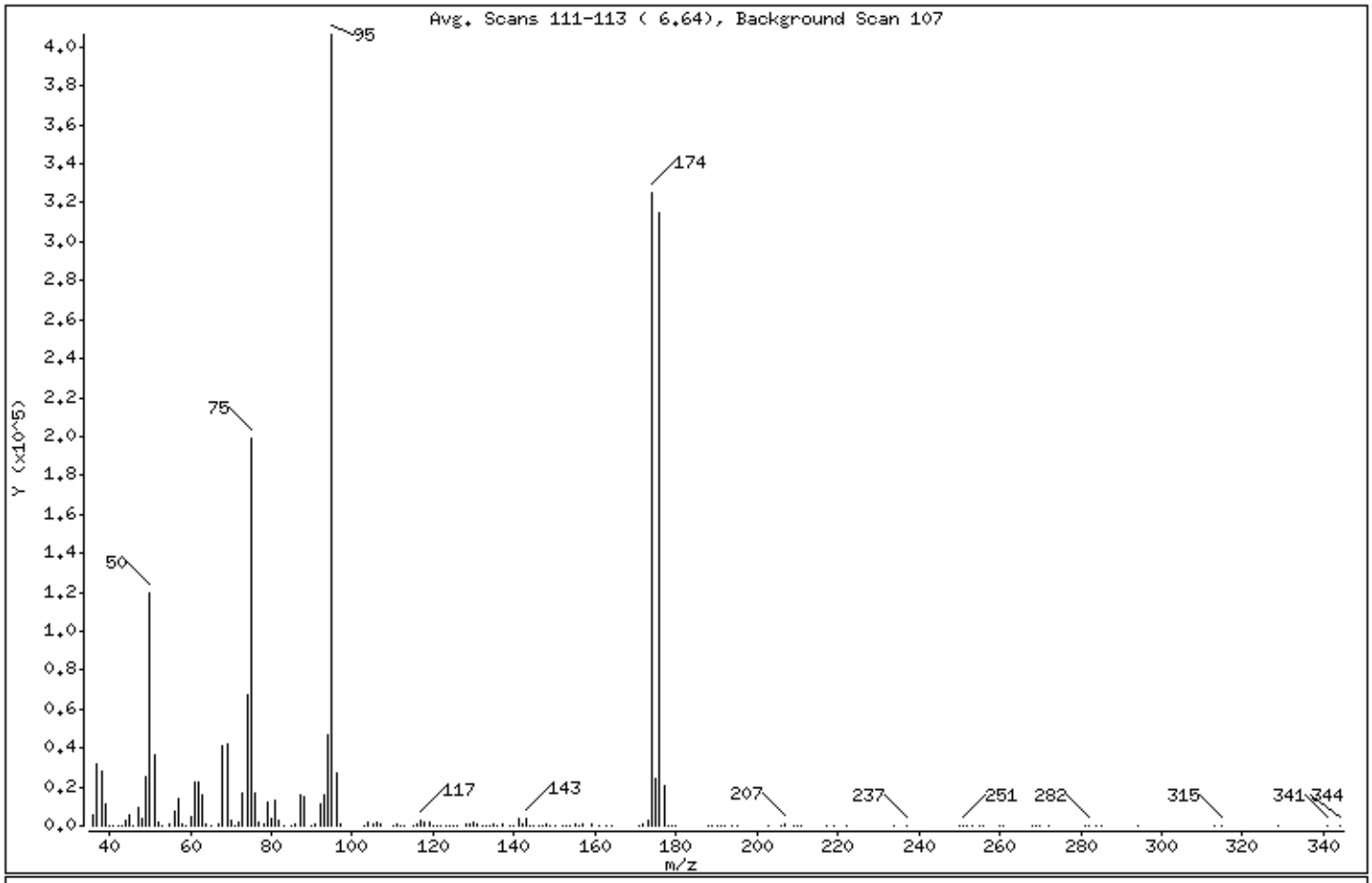
Client ID: BFB Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 29.32 |
| 75 | 30.00 - 66.00% of mass 95 | 48.93 |
| 96 | 5.00 - 9.00% of mass 95 | 6.56 |
| 173 | Less than 1.99% of mass 174 | 0.66 ( 0.82) |
| 174 | 50.00 - 120.00% of mass 95 | 79.93 |
| 175 | 4.00 - 9.00% of mass 174 | 5.86 ( 7.34) |
| 176 | 93.00 - 101.00% of mass 174 | 77.41 ( 96.84) |
| 177 | 5.00 - 9.00% of mass 176 | 5.10 ( 6.59) |

Data File: /chem/msdv.i/22Oct2014.b/v102201.d

Date : 22-OCT-2014 09:04

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v102201.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 161

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 5786 | 79.00 | 12606 | 131.00 | 625 | 190.00 | 59 |
| 37.00 | 32208 | 80.00 | 3897 | 132.00 | 126 | 191.00 | 207 |
| 38.00 | 28432 | 81.00 | 12852 | 133.00 | 368 | 192.00 | 36 |
| 39.00 | 10873 | 82.00 | 2973 | 134.00 | 55 | 194.00 | 8 |
| 40.00 | 30 | 83.00 | 384 | 135.00 | 950 | 195.00 | 151 |
| 41.00 | 75 | 85.00 | 21 | 136.00 | 107 | 203.00 | 77 |
| 42.00 | 157 | 86.00 | 489 | 137.00 | 737 | 206.00 | 111 |
| 43.00 | 402 | 87.00 | 15795 | 139.00 | 201 | 207.00 | 909 |
| 44.00 | 3150 | 88.00 | 15274 | 140.00 | 313 | 209.00 | 336 |
| 45.00 | 5365 | 90.00 | 55 | 141.00 | 3835 | 210.00 | 27 |
| 46.00 | 403 | 91.00 | 1197 | 142.00 | 505 | 211.00 | 174 |
| 47.00 | 9358 | 92.00 | 10908 | 143.00 | 3911 | 217.00 | 64 |
| 48.00 | 3582 | 93.00 | 16303 | 144.00 | 293 | 219.00 | 28 |
| 49.00 | 25456 | 94.00 | 46840 | 145.00 | 243 | 222.00 | 110 |
| 50.00 | 119176 | 95.00 | 406400 | 146.00 | 466 | 234.00 | 93 |
| 51.00 | 36552 | 96.00 | 26664 | 147.00 | 112 | 237.00 | 143 |
| 52.00 | 1414 | 97.00 | 759 | 148.00 | 827 | 250.00 | 89 |
| 53.00 | 129 | 103.00 | 190 | 149.00 | 213 | 251.00 | 221 |
| 55.00 | 1396 | 104.00 | 1792 | 150.00 | 449 | 252.00 | 70 |
| 56.00 | 7917 | 105.00 | 584 | 152.00 | 250 | 253.00 | 71 |
| 57.00 | 14254 | 106.00 | 1801 | 153.00 | 310 | 255.00 | 70 |
| 58.00 | 715 | 107.00 | 600 | 154.00 | 327 | 256.00 | 50 |
| 59.00 | 338 | 110.00 | 416 | 155.00 | 930 | 260.00 | 174 |
| 60.00 | 4511 | 111.00 | 522 | 156.00 | 115 | 261.00 | 143 |
| 61.00 | 22616 | 112.00 | 315 | 157.00 | 819 | 268.00 | 67 |
| 62.00 | 22216 | 113.00 | 408 | 159.00 | 546 | 269.00 | 26 |
| 63.00 | 16316 | 115.00 | 378 | 161.00 | 398 | 270.00 | 65 |
| 64.00 | 1384 | 116.00 | 1311 | 163.00 | 141 | 272.00 | 38 |
| 65.00 | 85 | 117.00 | 2570 | 164.00 | 141 | 281.00 | 11 |
| 67.00 | 1033 | 118.00 | 1692 | 171.00 | 120 | 282.00 | 133 |
| 68.00 | 41224 | 119.00 | 2213 | 172.00 | 570 | 284.00 | 28 |
| 69.00 | 41960 | 120.00 | 40 | 173.00 | 2672 | 285.00 | 52 |
| 70.00 | 3069 | 121.00 | 47 | 174.00 | 324864 | 294.00 | 54 |
| 71.00 | 140 | 122.00 | 133 | 175.00 | 23832 | 313.00 | 41 |
| 72.00 | 2127 | 123.00 | 240 | 176.00 | 314560 | 315.00 | 55 |

Data File: /chem/msdv.i/22Oct2014.b/v102201.d

Date : 22-OCT-2014 09:04

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-788; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v102201.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 161

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 17240 | 124.00 | 307 | 177.00 | 20712 | 329.00 | 5 |
| 74.00 | 67016 | 125.00 | 172 | 178.00 | 317 | 341.00 | 35 |
| 75.00 | 198848 | 126.00 | 95 | 179.00 | 103 | 344.00 | 12 |
| 76.00 | 16632 | 128.00 | 1339 | 180.00 | 181 | | |
| 77.00 | 1756 | 129.00 | 764 | 188.00 | 72 | | |
| 78.00 | 1332 | 130.00 | 1471 | 189.00 | 14 | | |

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/03Nov2014.b/v110301.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 03-NOV-2014 06:27
Operator : act Inst ID: msdv.i
Smp Info : 2.0uL #2299-790; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/03Nov2014.b/bfb60.m
Meth Date : 03-Nov-2014 06:43 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 6.640 | 0.000 | 95 | 297249 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 6.640 | 0.000 | 50 | 90872 | | | 8.00- 40.00 | 30.57 |
| 6.640 | 6.640 | 0.000 | 75 | 146503 | | | 30.00- 66.00 | 49.29 |
| 6.640 | 6.640 | 0.000 | 96 | 19513 | | | 5.00- 9.00 | 6.56 |
| 6.640 | 6.640 | 0.000 | 173 | 2077 | | | 0.00- 1.99 | 0.90 |
| 6.640 | 6.640 | 0.000 | 174 | 231786 | | | 50.00- 120.00 | 77.98 |
| 6.640 | 6.640 | 0.000 | 175 | 16999 | | | 4.00- 9.00 | 7.33 |
| 6.640 | 6.640 | 0.000 | 176 | 222829 | | | 93.00- 101.00 | 96.14 |
| 6.640 | 6.640 | 0.000 | 177 | 14533 | | | 5.00- 9.00 | 6.52 |

Data File: /chem/msdv.i/03Nov2014.b/v110301.d



Date : 03-NOV-2014 06:27

Client ID: BFB

Instrument: msdv.i

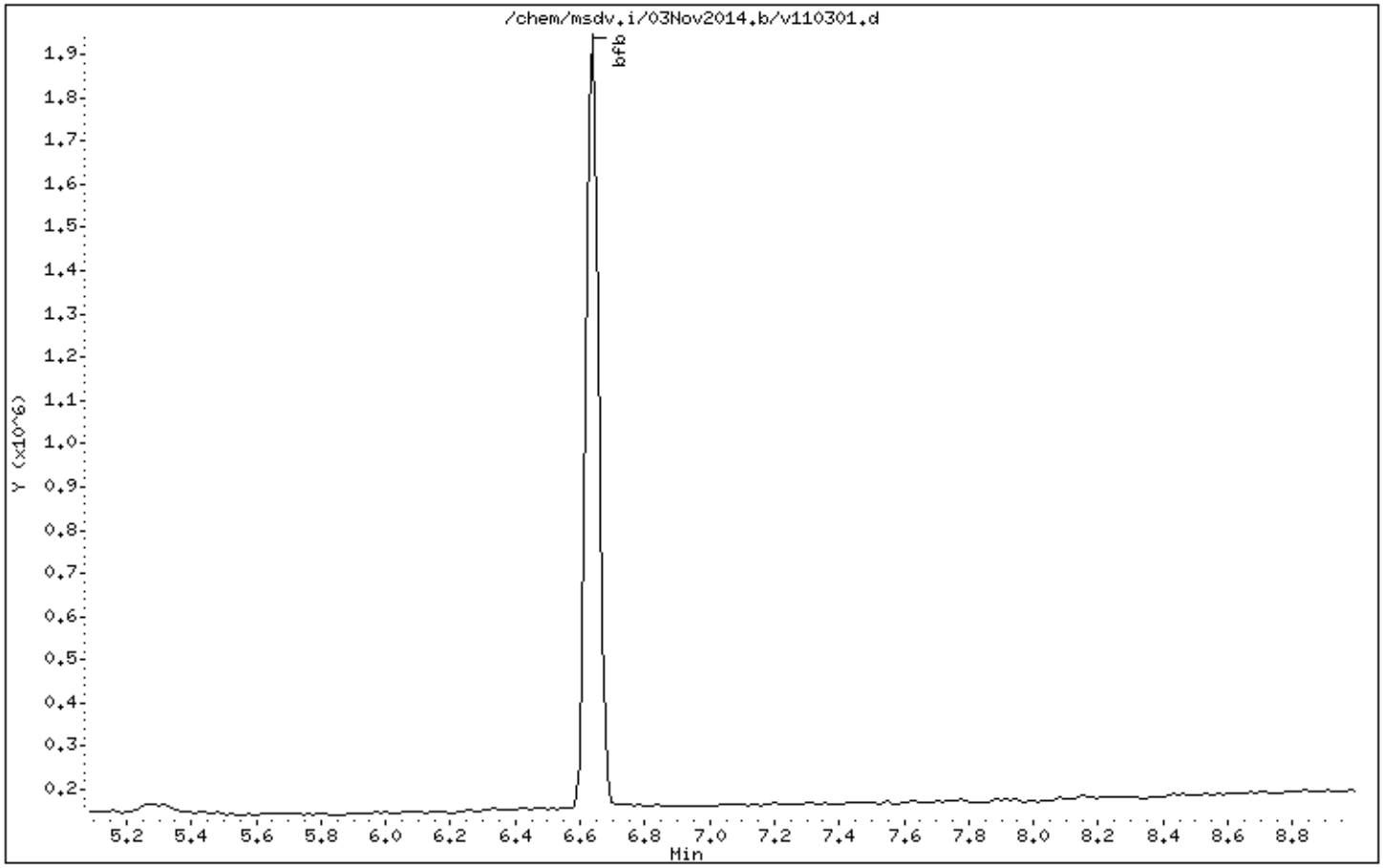
Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00



Data File: /chem/msdv.i/03Nov2014.b/v110301.d



Date : 03-NOV-2014 06:27

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

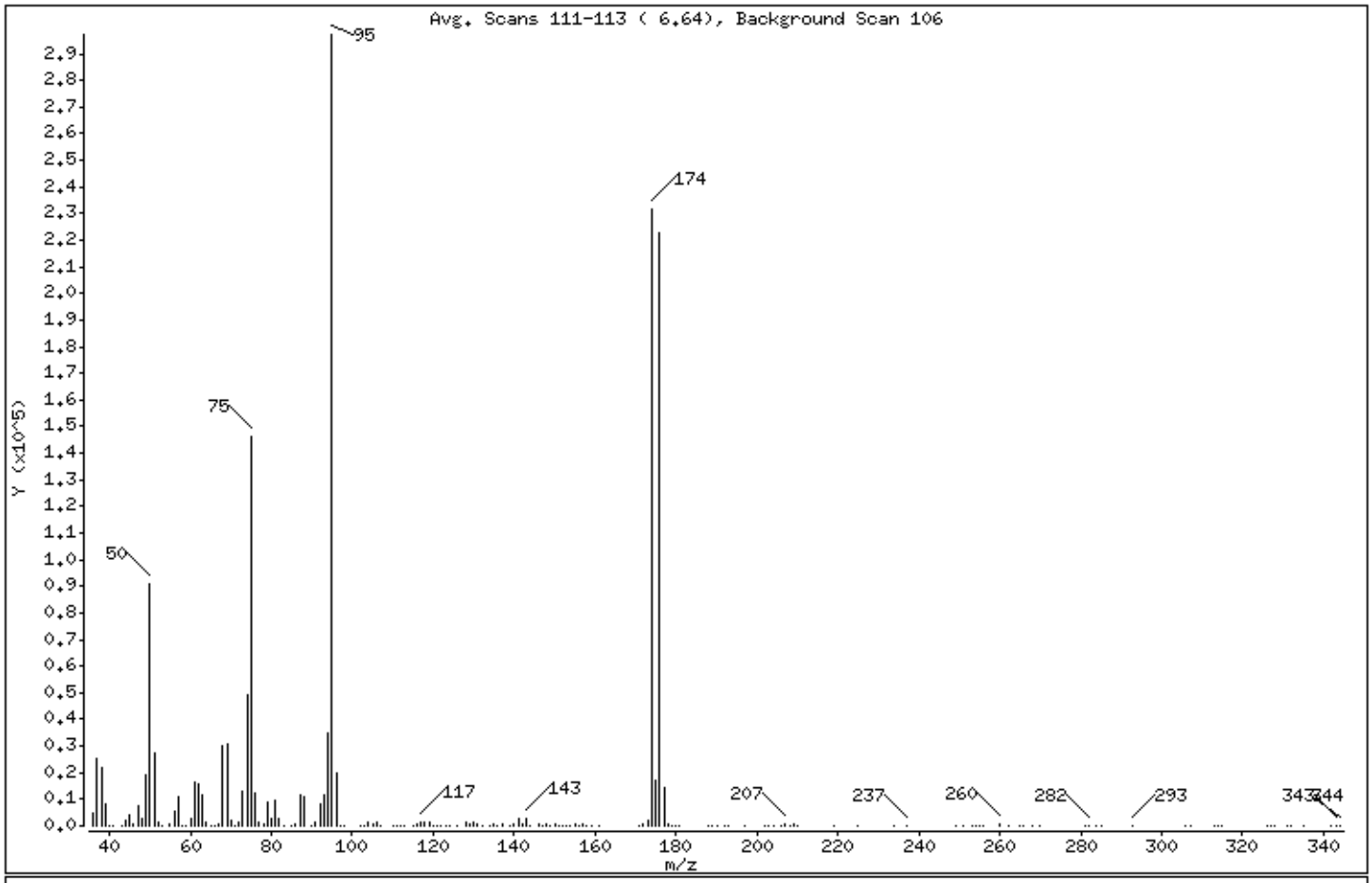
Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 30.57 |
| 75 | 30.00 - 66.00% of mass 95 | 49.29 |
| 96 | 5.00 - 9.00% of mass 95 | 6.56 |
| 173 | Less than 1.99% of mass 174 | 0.70 ( 0.90) |
| 174 | 50.00 - 120.00% of mass 95 | 77.98 |
| 175 | 4.00 - 9.00% of mass 174 | 5.72 ( 7.33) |
| 176 | 93.00 - 101.00% of mass 174 | 74.96 ( 96.14) |
| 177 | 5.00 - 9.00% of mass 176 | 4.89 ( 6.52) |

Data File: /chem/msdv.i/03Nov2014.b/v110301.d

Date : 03-NOV-2014 06:27

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

Data File: v110301.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 106
Location of Maximum: 95.00
Number of points: 170

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 4551 | 81.00 | 9352 | 135.00 | 846 | 204.00 | 139 |
| 37.00 | 25488 | 82.00 | 2392 | 136.00 | 69 | 206.00 | 79 |
| 38.00 | 22144 | 83.00 | 209 | 137.00 | 470 | 207.00 | 410 |
| 39.00 | 8022 | 85.00 | 19 | 139.00 | 224 | 208.00 | 336 |
| 40.00 | 111 | 86.00 | 413 | 140.00 | 348 | 209.00 | 352 |
| 41.00 | 15 | 87.00 | 11840 | 141.00 | 2865 | 210.00 | 132 |
| 43.00 | 220 | 88.00 | 10918 | 142.00 | 498 | 219.00 | 15 |
| 44.00 | 2309 | 90.00 | 122 | 143.00 | 2924 | 225.00 | 50 |
| 45.00 | 4069 | 91.00 | 1131 | 144.00 | 275 | 234.00 | 68 |
| 46.00 | 371 | 92.00 | 7899 | 146.00 | 621 | 237.00 | 109 |
| 47.00 | 7299 | 93.00 | 11583 | 147.00 | 44 | 249.00 | 114 |
| 48.00 | 2696 | 94.00 | 34888 | 148.00 | 574 | 251.00 | 58 |
| 49.00 | 19056 | 95.00 | 297216 | 149.00 | 246 | 253.00 | 187 |
| 50.00 | 90872 | 96.00 | 19512 | 150.00 | 366 | 254.00 | 48 |
| 51.00 | 27360 | 97.00 | 169 | 151.00 | 109 | 255.00 | 112 |
| 52.00 | 1178 | 98.00 | 6 | 152.00 | 66 | 256.00 | 58 |
| 53.00 | 138 | 102.00 | 142 | 153.00 | 192 | 260.00 | 433 |
| 55.00 | 572 | 103.00 | 25 | 154.00 | 297 | 262.00 | 7 |
| 56.00 | 5285 | 104.00 | 1180 | 155.00 | 749 | 265.00 | 94 |
| 57.00 | 10862 | 105.00 | 381 | 156.00 | 149 | 266.00 | 52 |
| 58.00 | 338 | 106.00 | 1362 | 157.00 | 550 | 268.00 | 52 |
| 59.00 | 210 | 107.00 | 248 | 158.00 | 235 | 270.00 | 6 |
| 60.00 | 2954 | 110.00 | 278 | 159.00 | 222 | 281.00 | 60 |
| 61.00 | 16345 | 111.00 | 141 | 161.00 | 128 | 282.00 | 270 |
| 62.00 | 16033 | 112.00 | 163 | 171.00 | 61 | 284.00 | 9 |
| 63.00 | 11508 | 113.00 | 198 | 172.00 | 426 | 285.00 | 115 |
| 64.00 | 1030 | 115.00 | 334 | 173.00 | 2077 | 293.00 | 123 |
| 65.00 | 83 | 116.00 | 1000 | 174.00 | 231744 | 306.00 | 111 |
| 66.00 | 213 | 117.00 | 1699 | 175.00 | 16992 | 307.00 | 53 |
| 67.00 | 615 | 118.00 | 1095 | 176.00 | 222784 | 313.00 | 98 |
| 68.00 | 30048 | 119.00 | 1606 | 177.00 | 14533 | 314.00 | 51 |
| 69.00 | 30768 | 120.00 | 77 | 178.00 | 402 | 315.00 | 54 |
| 70.00 | 2218 | 121.00 | 131 | 179.00 | 25 | 326.00 | 74 |
| 71.00 | 328 | 122.00 | 62 | 180.00 | 56 | 327.00 | 267 |
| 72.00 | 1360 | 123.00 | 134 | 181.00 | 47 | 328.00 | 44 |

Data File: /chem/msdv.i/03Nov2014.b/v110301.d

Date : 03-NOV-2014 06:27

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

Data File: v110301.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 106
Location of Maximum: 95.00
Number of points: 170

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 13082 | 124.00 | 292 | 188.00 | 56 | 331.00 | 2 |
| 74.00 | 49288 | 126.00 | 53 | 189.00 | 104 | 332.00 | 50 |
| 75.00 | 146496 | 128.00 | 1270 | 190.00 | 52 | 335.00 | 175 |
| 76.00 | 12323 | 129.00 | 570 | 192.00 | 25 | 342.00 | 82 |
| 77.00 | 1704 | 130.00 | 1078 | 193.00 | 111 | 343.00 | 327 |
| 78.00 | 950 | 131.00 | 497 | 197.00 | 212 | 344.00 | 144 |
| 79.00 | 9001 | 132.00 | 29 | 202.00 | 125 | | |
| 80.00 | 2825 | 134.00 | 218 | 203.00 | 172 | | |

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/16Dec2014.b/v121601.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 16-DEC-2014 08:20
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL #2299-790; BFB Tune Check; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/16Dec2014.b/bfb60.m
Meth Date : 16-Dec-2014 08:36 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | MASS | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|---|
| 1 bfb | | | | | | | CAS #: 460-00-4 | |
| 6.640 | 6.640 | 0.000 | 95 | 441578 | | | 100.00- 100.00 | 100.00 |
| 6.640 | 6.640 | 0.000 | 50 | 143532 | | | 8.00- 40.00 | 32.50 |
| 6.640 | 6.640 | 0.000 | 75 | 231819 | | | 30.00- 66.00 | 52.50 |
| 6.640 | 6.640 | 0.000 | 96 | 28955 | | | 5.00- 9.00 | 6.56 |
| 6.640 | 6.640 | 0.000 | 173 | 3591 | | | 0.00- 1.99 | 1.16 |
| 6.640 | 6.640 | 0.000 | 174 | 308480 | | | 50.00- 120.00 | 69.86 |
| 6.640 | 6.640 | 0.000 | 175 | 22533 | | | 4.00- 9.00 | 7.30 |
| 6.640 | 6.640 | 0.000 | 176 | 296989 | | | 93.00- 101.00 | 96.27 |
| 6.640 | 6.640 | 0.000 | 177 | 18711 | | | 5.00- 9.00 | 6.30 |

Data File: /chem/msdv.i/16Dec2014.b/v121601.d 

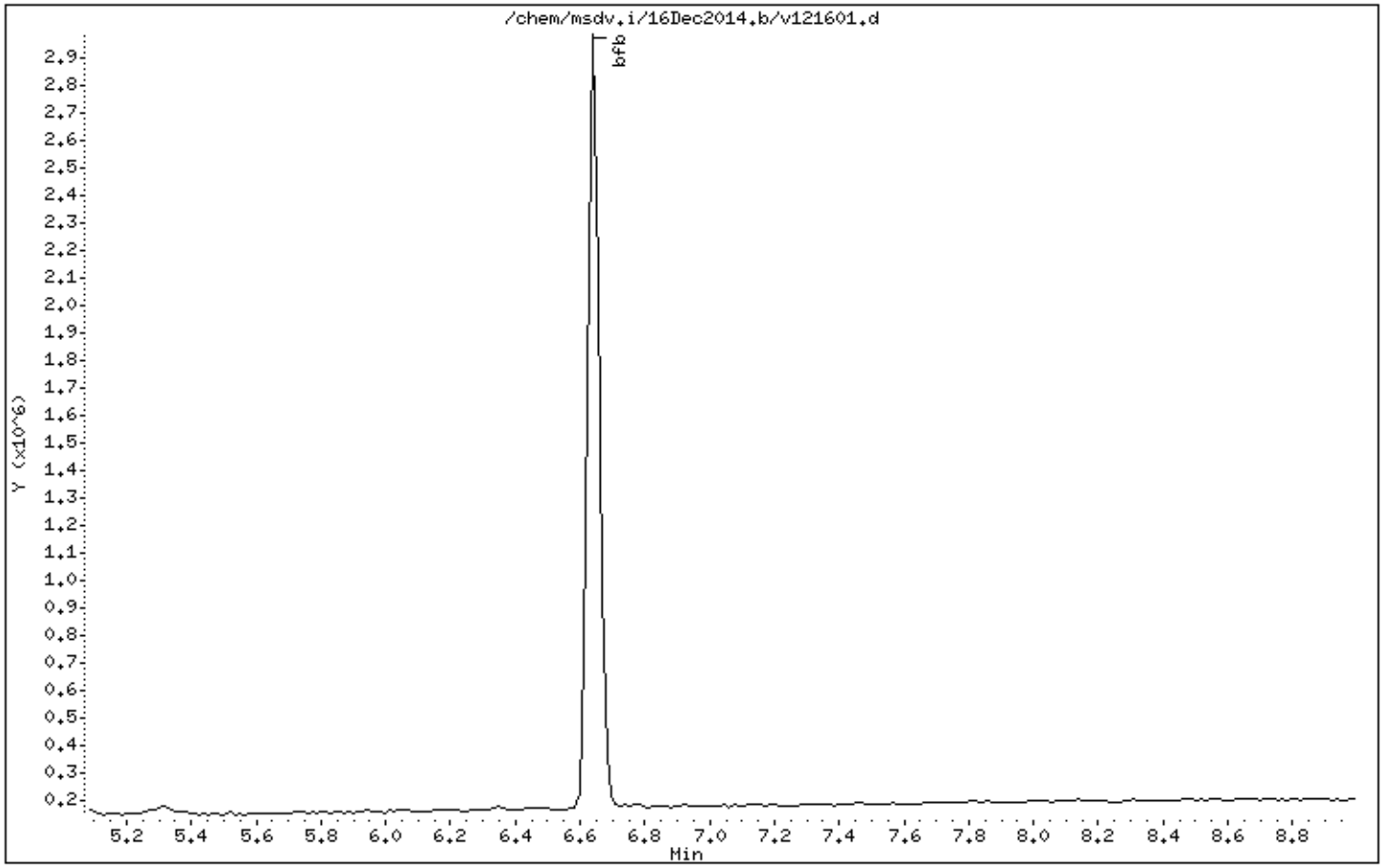
Date : 16-DEC-2014 08:20

Client ID: BFB Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Column diameter: 2.00



Data File: /chem/msdv.i/16Dec2014.b/v121601.d



Date : 16-DEC-2014 08:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

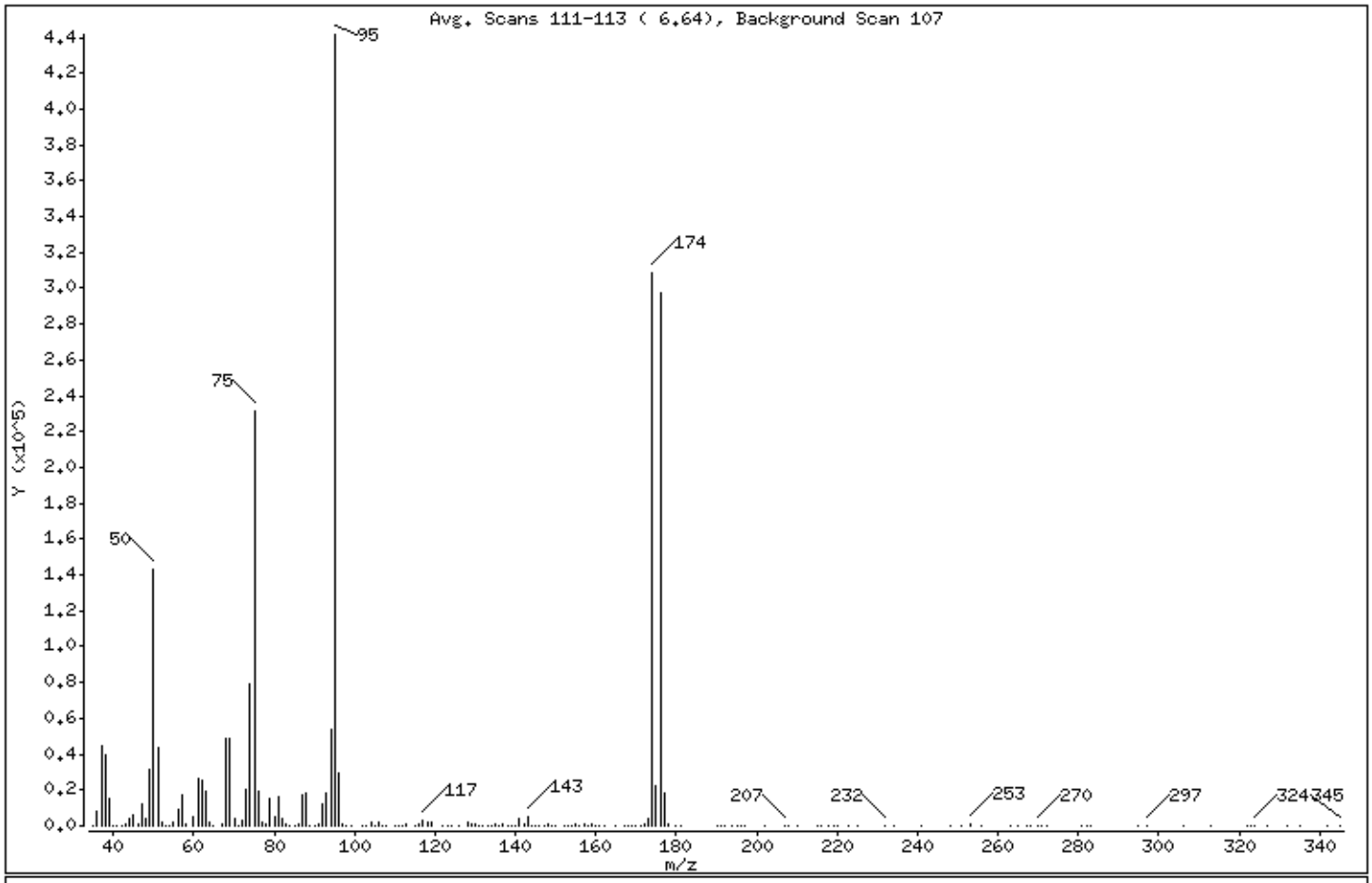
Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 8.00 - 40.00% of mass 95 | 32.50 |
| 75 | 30.00 - 66.00% of mass 95 | 52.50 |
| 96 | 5.00 - 9.00% of mass 95 | 6.56 |
| 173 | Less than 1.99% of mass 174 | 0.81 ( 1.16) |
| 174 | 50.00 - 120.00% of mass 95 | 69.86 |
| 175 | 4.00 - 9.00% of mass 174 | 5.10 ( 7.30) |
| 176 | 93.00 - 101.00% of mass 174 | 67.26 ( 96.27) |
| 177 | 5.00 - 9.00% of mass 176 | 4.24 ( 6.30) |

Data File: /chem/msdv.i/16Dec2014.b/v121601.d

Date : 16-DEC-2014 08:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v121601.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 179

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.00 | 55 | 82.00 | 3828 | 135.00 | 865 | 194.00 | 273 |
| 36.00 | 8354 | 83.00 | 567 | 136.00 | 147 | 195.00 | 80 |
| 37.00 | 44528 | 84.00 | 58 | 137.00 | 1037 | 196.00 | 121 |
| 38.00 | 39696 | 85.00 | 72 | 138.00 | 87 | 197.00 | 73 |
| 39.00 | 15219 | 86.00 | 606 | 139.00 | 310 | 202.00 | 60 |
| 40.00 | 332 | 87.00 | 17352 | 140.00 | 333 | 207.00 | 496 |
| 41.00 | 17 | 88.00 | 17968 | 141.00 | 4097 | 208.00 | 173 |
| 42.00 | 154 | 89.00 | 87 | 142.00 | 645 | 210.00 | 3 |
| 43.00 | 579 | 90.00 | 116 | 143.00 | 4571 | 215.00 | 62 |
| 44.00 | 4394 | 91.00 | 1140 | 144.00 | 215 | 216.00 | 239 |
| 45.00 | 6575 | 92.00 | 12400 | 145.00 | 207 | 218.00 | 46 |
| 46.00 | 572 | 93.00 | 18296 | 146.00 | 492 | 219.00 | 60 |
| 47.00 | 11938 | 94.00 | 53664 | 147.00 | 282 | 220.00 | 188 |
| 48.00 | 4308 | 95.00 | 441536 | 148.00 | 1004 | 223.00 | 1 |
| 49.00 | 31016 | 96.00 | 28952 | 149.00 | 144 | 225.00 | 163 |
| 50.00 | 143488 | 97.00 | 758 | 150.00 | 239 | 232.00 | 263 |
| 51.00 | 43712 | 98.00 | 150 | 152.00 | 179 | 234.00 | 126 |
| 52.00 | 1834 | 99.00 | 50 | 153.00 | 493 | 241.00 | 62 |
| 53.00 | 119 | 102.00 | 98 | 154.00 | 327 | 248.00 | 65 |
| 54.00 | 149 | 103.00 | 95 | 155.00 | 906 | 251.00 | 109 |
| 55.00 | 1712 | 104.00 | 1991 | 156.00 | 304 | 253.00 | 701 |
| 56.00 | 9417 | 105.00 | 424 | 157.00 | 585 | 256.00 | 130 |
| 57.00 | 17232 | 106.00 | 2063 | 158.00 | 23 | 263.00 | 59 |
| 58.00 | 640 | 107.00 | 234 | 159.00 | 682 | 265.00 | 60 |
| 60.00 | 5063 | 108.00 | 186 | 160.00 | 56 | 267.00 | 189 |
| 61.00 | 26584 | 110.00 | 260 | 161.00 | 350 | 268.00 | 66 |
| 62.00 | 25440 | 111.00 | 470 | 162.00 | 37 | 270.00 | 383 |
| 63.00 | 19080 | 112.00 | 485 | 165.00 | 20 | 271.00 | 53 |
| 64.00 | 1832 | 113.00 | 632 | 167.00 | 126 | 272.00 | 298 |
| 65.00 | 228 | 115.00 | 368 | 168.00 | 144 | 281.00 | 80 |
| 67.00 | 1324 | 116.00 | 1451 | 169.00 | 61 | 282.00 | 19 |
| 68.00 | 48984 | 117.00 | 2540 | 170.00 | 272 | 283.00 | 207 |
| 69.00 | 48496 | 118.00 | 1610 | 171.00 | 99 | 295.00 | 50 |
| 70.00 | 3590 | 119.00 | 2137 | 172.00 | 751 | 297.00 | 110 |
| 71.00 | 218 | 122.00 | 146 | 173.00 | 3591 | 306.00 | 24 |

Data File: /chem/msdv.i/16Dec2014.b/v121601.d

Date : 16-DEC-2014 08:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL #2299-790; BFB Tune Check; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v121601.d
Spectrum: Avg. Scans 111-113 ( 6.64), Background Scan 107
Location of Maximum: 95.00
Number of points: 179

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 72.00 | 2566 | 123.00 | 255 | 174.00 | 308480 | 313.00 | 77 |
| 73.00 | 20656 | 124.00 | 357 | 175.00 | 22528 | 322.00 | 160 |
| 74.00 | 79144 | 126.00 | 145 | 176.00 | 296960 | 323.00 | 208 |
| 75.00 | 231808 | 128.00 | 1702 | 177.00 | 18704 | 324.00 | 216 |
| 76.00 | 19496 | 129.00 | 1017 | 178.00 | 645 | 327.00 | 139 |
| 77.00 | 2325 | 130.00 | 1516 | 180.00 | 153 | 332.00 | 58 |
| 78.00 | 1448 | 131.00 | 384 | 181.00 | 49 | 335.00 | 71 |
| 79.00 | 15698 | 132.00 | 62 | 190.00 | 125 | 342.00 | 130 |
| 80.00 | 4702 | 133.00 | 115 | 191.00 | 187 | 345.00 | 9 |
| 81.00 | 16034 | 134.00 | 100 | 192.00 | 91 | | |

# Shipping/ Receiving Documents

eurofins | Air Toxics

# Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 6:30 A.M to 5:30 P.M. PST**

eurofins | Air Toxics

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020



Project Manager Terry Taylor
Collected by: (Print and Sign) AA,
Company AMAI Email
Address 110 Corporate Pk City White Plains State NY Zip 10604
Phone 914-251-0400 Fax

**Project Info:**
P.O. #
Project # Building 5 VI
Project Name BMS-Humacao

**Turn Around Time:**
☒ Normal
☐ Rush
specify

*Lab Use Only*
Pressurized by:
Date:
Pressurization Gas: $N_2$ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psi) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | BSIA-5(2014) | 34723 | 12/8/14 | 1555 | see notes | 30+ | 5 | | |
| 02A | BSIA-3D(2014) | 35255 | 12/9/14 | 0930 | " | 30+ | 16 | | |
| 03A | BSIA-3(2014) | 34450 | 12/9/14 | 0920 | " | 30+ | 3.5 | | |
| 04A | BSIA-11(2014) | 1651 | 12/9/14 | 1046 | " | 30+ | 8.5 | | |
| 05A | BSIA-9(2014) | 34440 | 12/9/14 | 1050 | " | 28 | 5 | | |
| | Do Not Analyze (Back PC) | 1690 | | | | | | | |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
|---|---|---|---|
| | 12/9/14; 1115 | [signature] | EATL 12/10/14 1010 |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |

**Notes:** Acetone, Benzene, Ethylbenzene, Isopropyl Alcohol, Methanol, MIBK, Toluene, Xylene via TO-15. Methane via ASTM D-1946

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | FedEx | 772146997180 | NA | Good | Yes No (None) | 141215 |

Form 1293 rev.11

eurofins | Air Toxics

# SAMPLE RECEIPT SUMMARY

## WORKORDER 1412151AR1

**Client**

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
**Sales Rep:** N/A

**Phone**

(914) 251-0400

**Fax**

**Date Promised:** 06/25/15
**Date Completed:** 7/1/15
**Date Received:** 12/10/14
**PO#:**
**Project#:** Building 5 VI BMS- Humacao

**Total $:** $ 160.00
**Logged By:** JCW

| Fraction | Sample # | Analysis | Collected | Receipt Vac./Pres. | Amount$ |
|---|---|---|---|---|---|
| 01A | BSIA-5 (2014) | Modified TO-15 | 12/8/2014 | 4.5 "Hg | $0.00 |
| 02A | BSIA-3D (2014) | Modified TO-15 | 12/9/2014 | 16 "Hg | $0.00 |
| 03A | BSIA-3 (2014) | Modified TO-15 | 12/9/2014 | 3.0 "Hg | $0.00 |
| 04A | BSIA-11 (2014) | Modified TO-15 | 12/9/2014 | 8.0 "Hg | $0.00 |
| 05A | BSIA-9 (2014) | Modified TO-15 | 12/9/2014 | 5.0 "Hg | $0.00 |
| 06A | Lab Blank | Modified TO-15 | NA | NA | $0.00 |
| 07A | CCV | Modified TO-15 | NA | NA | $0.00 |
| 08A | LCS | Modified TO-15 | NA | NA | $0.00 |
| 08AA | LCSD | Modified TO-15 | NA | NA | $0.00 |

| | | |
|---|---|---|
| Misc. Charges | Reissue Charges (1) @ $135.00 each. | $135.00 |
| | eCVP (5) @ $5.00 each. | $25.00 |

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

**BILL TO:** Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: pptv

**TERMS:**

Reporting Method: Modified TO-15-LL + Naph

# Sample Discrepancy Report

**Identification**

**Initiated By:** JCW **Project ID:**19256 **PM**: BSW **Date:** 12/12/2014 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

**Workorder(s) affected:1412151A** **Sample(s) affected:** 02A

## 1. Sample Receipt Discrepancies

**Narration Not Required:**

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

**Notify Lab for further determination:**

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

**Narration Required in Lab Narrative and Sample Confirmation:**

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

**Describe the Discrepancy:** _____

## 2. Sample Receipt/Screening Discrepancies requiring PM notification

*Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative*

**If Section II. is filled out PM must be notified within 24 hrs of initiation**

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of $H_2O$ in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☒ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (<25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Flow Controller RPD of = 20% was not met.

2.20. ☐ Other (describe below)

**Initials:** **JCW** **Date:** **12/12/2014** **Notify Receiving:** ☐ **Notify PM:** ☐

**Describe the Discrepancy:** 2.16: 02A received >15"Hg, not identified as TB/FB

## *3.* Lab Discrepancies requiring Team Leader/PM notification

*Document in Analytical Notes of Lab Narrative*

**If Section III. is filled out PM must be notified within 24 hrs of initiation**

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

**Team Lead Initials:** _____ **Date:** _____

**Describe the Discrepancy:** _____

_____

_____

**How Does this Affect Client:** _____

_____

_____

**Project Manager Use Only**

**Project Manager Notification** ☒ **Section 2 Complete** ☐ **Section 3 Complete**

**Action:**

☒ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: KV Date: 12/12/2014

☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: _____ Person notified: _____ Date: _____

☐ Waiting for Client Reply

Comments: **Proceed.**

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐ _____

☐ **Additional notifications attached.**

**Additional Comments:**

_____

# Other Records

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

| Initial Vacuum (" of Hg) | 5 psi Final Pressure Dilution Factor | 15 psi Final Pressure Dilution Factor |
|---|---|---|
| 0.0 | 1.34 | 2.02 |
| 0.2 | 1.35 | 2.03 |
| 0.4 | 1.36 | 2.05 |
| 0.5 | 1.36 | 2.05 |
| 0.6 | 1.37 | 2.06 |
| 0.8 | 1.38 | 2.08 |
| 1.0 | 1.39 | 2.09 |
| 1.2 | 1.40 | 2.10 |
| 1.4 | 1.40 | 2.12 |
| 1.5 | 1.41 | 2.13 |
| 1.6 | 1.42 | 2.13 |
| 1.8 | 1.42 | 2.15 |
| 2.0 | 1.44 | 2.16 |
| 2.2 | 1.45 | 2.18 |
| 2.4 | 1.46 | 2.20 |
| 2.5 | 1.46 | 2.20 |
| 2.6 | 1.47 | 2.21 |
| 2.8 | 1.48 | 2.23 |
| 3.0 | 1.49 | 2.24 |
| 3.2 | 1.50 | 2.26 |
| 3.4 | 1.51 | 2.28 |
| 3.5 | 1.52 | 2.29 |
| 3.6 | 1.52 | 2.30 |
| 3.8 | 1.53 | 2.31 |
| 4.0 | 1.55 | 2.33 |
| 4.2 | 1.56 | 2.35 |
| 4.4 | 1.57 | 2.37 |
| 4.5 | 1.58 | 2.38 |
| 4.6 | 1.58 | 2.39 |
| 4.8 | 1.60 | 2.40 |
| 5.0 | 1.61 | 2.42 |
| 5.2 | 1.62 | 2.44 |
| 5.4 | 1.63 | 2.46 |
| 5.5 | 1.64 | 2.47 |
| 5.6 | 1.65 | 2.48 |
| 5.8 | 1.66 | 2.50 |
| 6.0 | 1.68 | 2.52 |
| 6.2 | 1.69 | 2.55 |
| 6.4 | 1.70 | 2.57 |
| 6.5 | 1.71 | 2.58 |
| 6.6 | 1.72 | 2.59 |
| 6.8 | 1.73 | 2.61 |
| 7.0 | 1.75 | 2.64 |
| 7.2 | 1.76 | 2.66 |
| 7.4 | 1.78 | 2.68 |
| 7.5 | 1.79 | 2.69 |
| 7.6 | 1.79 | 2.70 |

| Initial Vacuum (" of Hg) | 5 psi Final Pressure Dilution Factor | 15 psi Final Pressure Dilution Factor |
|---|---|---|
| 7.7 | 1.80 | 2.72 |
| 7.8 | 1.81 | 2.73 |
| 8.0 | 1.83 | 2.76 |
| 8.2 | 1.84 | 2.78 |
| 8.4 | 1.86 | 2.81 |
| 8.5 | 1.87 | 2.82 |
| 8.6 | 1.88 | 2.83 |
| 8.8 | 1.90 | 2.86 |
| 9.0 | 1.91 | 2.89 |
| 9.2 | 1.93 | 2.91 |
| 9.4 | 1.95 | 2.94 |
| 9.5 | 1.96 | 2.96 |
| 9.6 | 1.97 | 2.97 |
| 9.8 | 1.99 | 3.00 |
| 10.0 | 2.01 | 3.03 |
| 10.2 | 2.03 | 3.06 |
| 10.4 | 2.05 | 3.09 |
| 10.5 | 2.06 | 3.11 |
| 10.6 | 2.07 | 3.12 |
| 10.8 | 2.09 | 3.16 |
| 11.0 | 2.12 | 3.19 |
| 11.2 | 2.14 | 3.22 |
| 11.4 | 2.16 | 3.26 |
| 11.5 | 2.17 | 3.28 |
| 11.6 | 2.18 | 3.29 |
| 11.8 | 2.21 | 3.33 |
| 12.0 | 2.23 | 3.37 |
| 12.2 | 2.26 | 3.40 |
| 12.4 | 2.28 | 3.44 |
| 12.5 | 2.30 | 3.46 |
| 12.6 | 2.31 | 3.48 |
| 12.8 | 2.34 | 3.52 |
| 13.0 | 2.36 | 3.56 |
| 13.2 | 2.39 | 3.61 |
| 13.4 | 2.42 | 3.65 |
| 13.5 | 2.44 | 3.67 |
| 13.6 | 2.45 | 3.70 |
| 13.8 | 2.48 | 3.74 |
| 14.0 | 2.51 | 3.79 |
| 14.2 | 2.54 | 3.84 |
| 14.4 | 2.58 | 3.88 |
| 14.5 | 2.59 | 3.91 |
| 14.6 | 2.61 | 3.94 |
| 14.8 | 2.64 | 3.99 |
| 15.0 | 2.68 | 4.04 |
| 15.2 | 2.72 | 4.10 |
| 15.4 | 2.75 | 4.15 |

| Initial Vacuum (" of Hg) | 5 psi Final Pressure Dilution Factor | 15 psi Final Pressure Dilution Factor |
|---|---|---|
| 15.5 | 2.77 | 4.18 |
| 15.6 | 2.79 | 4.21 |
| 15.8 | 2.83 | 4.27 |
| 16.0 | 2.87 | 4.33 |
| 16.2 | 2.91 | 4.39 |
| 16.4 | 2.96 | 4.46 |
| 16.5 | 2.98 | 4.49 |
| 16.6 | 3.00 | 4.52 |
| 16.8 | 3.05 | 4.59 |
| 17.0 | 3.09 | 4.66 |
| 17.2 | 3.14 | 4.74 |
| 17.4 | 3.19 | 4.81 |
| 17.5 | 3.22 | 4.85 |
| 17.6 | 3.24 | 4.89 |
| 17.8 | 3.30 | 4.97 |
| 18.0 | 3.35 | 5.05 |
| 18.2 | 3.41 | 5.14 |
| 18.4 | 3.47 | 5.22 |
| 18.5 | 3.50 | 5.27 |
| 18.6 | 3.53 | 5.32 |
| 18.8 | 3.59 | 5.41 |
| 19.0 | 3.65 | 5.51 |
| 19.2 | 3.72 | 5.61 |
| 19.4 | 3.79 | 5.72 |
| 19.5 | 3.83 | 5.77 |
| 19.6 | 3.87 | 5.83 |
| 19.8 | 3.94 | 5.94 |
| 20.0 | 4.02 | 6.06 |
| 20.2 | 4.10 | 6.18 |
| 20.4 | 4.19 | 6.31 |
| 20.5 | 4.23 | 6.38 |
| 20.6 | 4.28 | 6.45 |
| 20.8 | 4.37 | 6.59 |
| 21.0 | 4.47 | 6.73 |
| 21.2 | 4.57 | 6.89 |
| 21.4 | 4.67 | 7.05 |
| 21.5 | 4.73 | 7.13 |
| 21.6 | 4.79 | 7.22 |
| 21.8 | 4.90 | 7.39 |
| 22.0 | 5.03 | 7.58 |
| 22.4 | 5.29 | 7.98 |

| Initial Vacuum (" of Hg) | 5 psi Final Pressure Dilution Factor | 15 psi Final Pressure Dilution Factor |
|---|---|---|
| 22.5 | 5.36 | 8.08 |
| 22.6 | 5.43 | 8.19 |
| 22.8 | 5.58 | 8.42 |
| 23.0 | 5.74 | 8.66 |
| 23.2 | 5.91 | 8.91 |
| 23.4 | 6.09 | 9.18 |
| 23.5 | 6.19 | 9.32 |
| 23.6 | 6.28 | 9.47 |
| 23.8 | 6.48 | 9.78 |
| 24.0 | 6.70 | 10.10 |
| 24.2 | 6.93 | 10.45 |
| 24.4 | 7.18 | 10.82 |
| 24.5 | 7.31 | 11.02 |
| 24.6 | 7.45 | 11.22 |
| 24.8 | 7.73 | 11.66 |
| 25.0 | 8.04 | 12.12 |
| 25.2 | 8.38 | 12.63 |
| 25.4 | 8.74 | 13.18 |
| 25.5 | 8.93 | 13.47 |
| 25.6 | 9.14 | 13.78 |
| 25.8 | 9.57 | 14.43 |
| 26.0 | 10.05 | 15.15 |
| 26.2 | 10.58 | 15.95 |
| 26.4 | 11.17 | 16.84 |
| 26.5 | 11.49 | 17.32 |
| 26.6 | 11.82 | 17.83 |
| 26.8 | 12.56 | 18.94 |
| 27.0 | 13.40 | 20.20 |
| 27.2 | 14.36 | 21.65 |
| 27.4 | 15.46 | 23.31 |
| 27.5 | 16.08 | 24.24 |
| 27.6 | 16.75 | 25.26 |
| 27.8 | 18.27 | 27.55 |
| 28.0 | 20.10 | 30.31 |
| 28.2 | 22.34 | 33.67 |
| 28.4 | 25.13 | 37.88 |
| 28.5 | 26.80 | 40.41 |
| 28.6 | 28.72 | 43.29 |
| 28.8 | 33.50 | 50.51 |
| 29.0 | 40.20 | 60.61 |

# Compound List

**Modified TO-15-LL + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 75-71-8 | Freon 12 | 0.10 | |
| 76-14-2 | Freon 114 | 0.10 | |
| 75-35-4 | 1,1-Dichloroethene | 0.10 | |
| 67-64-1 | Acetone | 0.50 | |
| 67-63-0 | 2-Propanol | 0.50 | |
| 75-15-0 | Carbon Disulfide | 0.50 | |
| 75-09-2 | Methylene Chloride | 0.20 | |
| 1634-04-4 | Methyl tert-butyl ether | 0.10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.10 | |
| 110-54-3 | Hexane | 0.10 | |
| 75-34-3 | 1,1-Dichloroethane | 0.10 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 0.50 | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.10 | |
| 109-99-9 | Tetrahydrofuran | 0.50 | |
| 67-66-3 | Chloroform | 0.10 | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.10 | |
| 110-82-7 | Cyclohexane | 0.10 | |
| 56-23-5 | Carbon Tetrachloride | 0.10 | |
| 71-43-2 | Benzene | 0.10 | |
| 107-06-2 | 1,2-Dichloroethane | 0.10 | |
| 142-82-5 | Heptane | 0.10 | |
| 79-01-6 | Trichloroethene | 0.10 | |
| 78-87-5 | 1,2-Dichloropropane | 0.10 | |
| 123-91-1 | 1,4-Dioxane | 0.10 | |
| 75-27-4 | Bromodichloromethane | 0.10 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.10 | |
| 108-10-1 | 4-Methyl-2-pentanone | 0.10 | |
| 108-88-3 | Toluene | 0.10 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.10 | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.10 | |
| 127-18-4 | Tetrachloroethene | 0.10 | |
| 591-78-6 | 2-Hexanone | 0.50 | |
| 124-48-1 | Dibromochloromethane | 0.10 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 0.10 | |
| 108-90-7 | Chlorobenzene | 0.10 | |
| 100-41-4 | Ethyl Benzene | 0.10 | |
| 108-38-3 | m,p-Xylene | 0.10 | |
| 95-47-6 | o-Xylene | 0.10 | |
| 100-42-5 | Styrene | 0.10 | |
| 75-25-2 | Bromoform | 0.10 | |
| 98-82-8 | Cumene | 0.10 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.10 | |
| 103-65-1 | Propylbenzene | 0.10 | |
| 622-96-8 | 4-Ethyltoluene | 0.10 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.10 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.10 | |

# Compound List

**Modified TO-15-LL + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 541-73-1 | 1,3-Dichlorobenzene | 0.10 | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.10 | |
| 100-44-7 | alpha-Chlorotoluene | 0.10 | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.10 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | |
| 87-68-3 | Hexachlorobutadiene | 0.50 | |
| 91-20-3 | Naphthalene | 0.50 | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | | |
| 2037-26-5 | Toluene-d8 | | |
| 460-00-4 | 4-Bromofluorobenzene | | |
| 107-05-1 | 3-Chloropropene | 0.50 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.50 | |
| 74-87-3 | Chloromethane | 0.50 | |
| 75-01-4 | Vinyl Chloride | 0.10 | |
| 106-99-0 | 1,3-Butadiene | 0.10 | |
| 74-83-9 | Bromomethane | 0.50 | |
| 75-00-3 | Chloroethane | 0.50 | |
| 75-69-4 | Freon 11 | 0.10 | |
| 64-17-5 | Ethanol | 0.50 | |
| 76-13-1 | Freon 113 | 0.10 | |

eurofins | Air Toxics

# Media Certification Report

Canister Number: 6L#34723 w/24hrs#30594
Can#: 99058-34723
Date : 11/27/14 0:27
Data File: o112620.d

www.airtoxics.com
1-800-985-5955

| Name | CAS | Conc. | Units |
|---|---|---|---|
| Ethyl Benzene | 100-41-4 | ND | ppbv |
| m,p-Xylene | 108-38-3 | ND | ppbv |
| Chloroform | 67-66-3 | ND | ppbv |
| Benzene | 71-43-2 | ND | ppbv |
| Bromodichloromethane | 75-27-4 | ND | ppbv |
| Naphthalene | 91-20-3 | ND | ppbv |
| o-Xylene | 95-47-6 | ND | ppbv |
| 4-Bromofluorobenzene | 460-00-4 | 100.00 | % Recovery |

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# Media Certification Report

Canister Number: 6L#35255 w/24hrs#40025
Can#: 99058-35255
Date : 11/26/14 17:15
Data File: o112606.d

www.airtoxics.com
1-800-985-5955

| Name | CAS | Conc. | Units |
|---|---|---|---|
| Ethyl Benzene | 100-41-4 | ND | ppbv |
| m,p-Xylene | 108-38-3 | ND | ppbv |
| Chloroform | 67-66-3 | ND | ppbv |
| Benzene | 71-43-2 | ND | ppbv |
| Bromodichloromethane | 75-27-4 | ND | ppbv |
| Naphthalene | 91-20-3 | ND | ppbv |
| o-Xylene | 95-47-6 | ND | ppbv |
| 4-Bromofluorobenzene | 460-00-4 | 100.00 | % Recovery |

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# Media Certification Report

Canister Number: 6L#34450 w/24hrs#30643
Can#: 99058-34450
Date : 11/26/14 23:58
Data File: o112619.d

www.airtoxics.com
1-800-985-5955

| Name | CAS | Conc. | Units |
|---|---|---|---|
| Ethyl Benzene | 100-41-4 | ND | ppbv |
| m,p-Xylene | 108-38-3 | ND | ppbv |
| Chloroform | 67-66-3 | ND | ppbv |
| Benzene | 71-43-2 | ND | ppbv |
| Bromodichloromethane | 75-27-4 | ND | ppbv |
| Naphthalene | 91-20-3 | ND | ppbv |
| o-Xylene | 95-47-6 | ND | ppbv |
| 4-Bromofluorobenzene | 460-00-4 | 100.00 | % Recovery |

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# Media Certification Report

Canister Number: 6L#1651 w/24hrs#40207
Can#: 99058-1651
Date : 11/26/14 18:15
Data File: o112608.d

www.airtoxics.com
1-800-985-5955

| Name | CAS | Conc. | Units |
|---|---|---|---|
| Ethyl Benzene | 100-41-4 | ND | ppbv |
| m,p-Xylene | 108-38-3 | ND | ppbv |
| Chloroform | 67-66-3 | ND | ppbv |
| Benzene | 71-43-2 | ND | ppbv |
| Bromodichloromethane | 75-27-4 | ND | ppbv |
| Naphthalene | 91-20-3 | ND | ppbv |
| o-Xylene | 95-47-6 | ND | ppbv |
| 4-Bromofluorobenzene | 460-00-4 | 100.00 | % Recovery |

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# Media Certification Report

Canister Number: 6L#34440 w/24hrs#40701
Can#: 99058-34440
Date : 11/27/14 1:56
Data File: o112623.d

www.airtoxics.com
1-800-985-5955

| Name | CAS | Conc. | Units |
|---|---|---|---|
| Ethyl Benzene | 100-41-4 | ND | ppbv |
| m,p-Xylene | 108-38-3 | ND | ppbv |
| Chloroform | 67-66-3 | ND | ppbv |
| Benzene | 71-43-2 | ND | ppbv |
| Bromodichloromethane | 75-27-4 | ND | ppbv |
| Naphthalene | 91-20-3 | ND | ppbv |
| o-Xylene | 95-47-6 | ND | ppbv |
| 4-Bromofluorobenzene | 460-00-4 | 101.00 | % Recovery |

| Eurofins Air Toxics, Inc. | Data Review Checklist | | | Release Date: 07/14/14 |
|---|---|---|---|---|
| **Workorder #** 1412151A | Form F1.27 | Revision #9 | Revision date: 07/14/14 | Page 1 of 2 |

| S1 | S2 | S3 | S4 | D | Section 1 – Spec Out | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Initials/Instrument/Date** | **S1:** MSDV 12/16/14 | **S2:** | **S3:** | **S4:** |
| ✓ | | | | | Daily QC and ICAL met Criteria | | | | |
| ✓ | | | | | Lumen QC and ICAL evaluation report initialed and in folder | | | | |
| NA | | | | | Manual Integrations included and approved | | | | |
| ✓ | | | | | Chain of Custody verified for special comments (add comments below) | | | | |
| ✓ | | | | | Non standard Target sublist printed | | | | |

**Profile, analyses, reporting, special notes and unusual circumstances:**

4 out in QC (Short list). ~~[illegible]~~ HAB 12/23/14

| A1 | A2 | A3 | A4 | D | Section 2 – Sample Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Initials/Date** | **A1:** DW 12/16/14 | **A2:** | **A3:** | **A4:** |
| ✓ | | | | | Internal Standard/Surrogate Recoveries, Dilution Factors, Load Volumes, Initial/Final Pressures, and Canister #s Verified | | | | |
| NA | | | | | Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply) | | | | |
| ✓ | | | | | 12/24 Hr clock time & Hold Time met for all samples | | | | |
| NA | | | | | Re-analysis of sample(s) have been evaluated for comparability and/or samples have been checked for trends (Inf/Eff). | | | | |
| ✓ | | | | | All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds etc) | | | | |

**Analytical and special notes:** A: 01A, 05A OK DIL TC = 01A + 03A
02A + 03A FIELD DUPS RPD OK

| D1 | D2 | D3 | D4 | T | 3T | Section 3 – Target Data Reduction | Technical Review Needed? Circle one: Yes/No | | T: | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **Initials/Instrument/Date** MSDV 12/16 | **D1:** HAB 12/23/14 | **D2:** | **D3:** | **D4:** |
| NA | | | | | | CAR # *(if applicable)* | | | | |
| NA | | | | | | Spectra Verified *(documentation of spectral defense included if applicable)* | | | | |
| | | | | | | TICs resemble reference spectra/ TICs between sample dups. are consistent *(if applicable)* | | | | |
| NA | | | | | | Lab Narrative is correct | | | | |
| | | | | | | TPH/NMOC calculations complete and included in folder | | | | |

**Special notes:** Tol is "E" flagged in -01A, -02A, -03A.
2-ethyl Acetate > "E" flagged in -01A, -02A, -03A.

| A | 3T | Section 4- Atlas Data Entry | Lumen verified and included in folder | Circle one: Yes/No |
|---|---|---|---|---|
| | | **Initials/Date:** HAB 12/23/14 | **3rd Tier:** *(needed only for DOD or per client request)* | |
| ✓ | | Sample Discrepancy Report (SDR) complete and approved *(if applicable)* | | |
| NA | | Manually entered results are checked | | |
| ✓ | | At least one result per sample is verified against Target quant sheets | | |
| ✓ | | Appropriate data qualifier flags are applied | | |
| ✓ | | Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct | | |

**Special Notes:**

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
*Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects*

| Eurofins Air Toxics, Inc. | Reissued - Data Review Checklist | | | Release Date 01/29/14 |
|---|---|---|---|---|
| | Form F 1.27 | Revision #8 | Revision date 01/29/14 | Page 2 of 2 |

| Workorder # : | | | | Reason for Reissue: |
|---|---|---|---|---|
| 1412151AR1 | | | | Report full list TO15 + Naphthalene JFlagged to MDL |
| W | T | 3T | Q | |
| ✓ | | | | Reissue Request form Present |
| MA | | | | Client or QA or Lab contact present with reason for reissue |
| ✓ | | | | Review all affected data |
| ✓ | | | | Report header has correct R1, R2 etc |
| ✓ | | | | The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested) |
| ✓ | | | | Date for Reissue in Report Header matches date in Lab Narrative |
| ✓ | | | | Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc) |
| MA | | | | Corrective Action issued - # |
| MA | | | | The reissued workorder has been approved by QA Manager or a Technical Director |

***Additional Comments:***

MDL's Attached

JFlag MDL ; CCV & LCS exceedances ; Raised RLS for Fr12 & α-Chlorotoluene 0.1ppbv → 0.5ppbv

| Write Up (Initials/Date) | Tech Review (Initials/Date) | *3rd Tier Review * 3rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date) | QA Review (Initials/Date) |
|---|---|---|---|
| SB 7/1/15 | | | |

| Workorder # : | | | | Reason for Reissue: |
|---|---|---|---|---|
| | | | | |
| W | T | 3T | Q | |
| | | | | Reissue Request form Present |
| | | | | Client or QA or Lab contact present with reason for reissue |
| | | | | Review all affected data |
| | | | | Report header has correct R1, R2 etc |
| | | | | The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested) |
| | | | | Date for Reissue in Report Header matches date in Lab Narrative |
| | | | | Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc) |
| | | | | Corrective Action issued - # |
| | | | | The reissued workorder has been approved by QA Manager or a Technical Director |

***Additional Comments:***

| Write Up (Initials/Date) | Tech Review (Initials/Date) | *3rd Tier Review * 3rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date) | QA Review (Initials/Date) |
|---|---|---|---|
| | | | |

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
*Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects*

# Not Applicable